Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Photogrammetric Topographic
T-8758

Field No. Office No. Ph-7(46)E

LOCALITY

State Delaware

General locality Delaware River

Locality Smyrna

1946

CHIEF OF PARTY

Thos. B. Reed

LIBRARY & ARCHIVES

DATE June 21, 1948
DATA RECORD

T-8758

Quadrangle (II): Smyrna

Field Office: Camden, New Jersey

Compilation Office: Baltimore Photogrammetric Office

Chief of Party: E. L. Jones

Chief of Party: Thos. B. Reed

Instructions dated (II III):
25 March 1946 (Field)
19 July 1946 (Office)

Completed survey received in office: 23 Jan. 1948

Reported to Nautical Chart Section:

Reviewed: 18 May 1948  Applied to chart No.  Date:

Redrafting Completed:

Registered: 10 June 1948  Published:

Compilation Scale: 1:20,000  Published Scale: 1:24,000

Scale Factor (III): 1.000

Geographic Datum (III): N.A. 1927  Datum Plane (III): M.S.L.

Reference Station (III): FLEWIN, 1933

Lat.: 39° 21' 15.214" 469.2m  Long.: 75° 33' 00.748" 17.9m  Adjusted

State Plane Coordinates (VI):

Del. State Grid:

\[ x = 462,235.88 \text{ Feet} \]

N.J. State Grid:

\[ x = 1,750,146.30 \text{ Feet} \]

Military Grid Zone (VI):

\[ y = 493,228.86 \text{ Feet} \]

\[ y = 190,937.58 \text{ Feet} \]
PHOTOGRAPHS (III)
75th meridian

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Stage of Tide</th>
</tr>
</thead>
<tbody>
<tr>
<td>15539-41 incl.</td>
<td>3-21-46</td>
<td>1024</td>
<td>1:20,000</td>
<td>5.5' above MLW</td>
</tr>
<tr>
<td>15557 &amp; 58</td>
<td>3-21-46</td>
<td>1051</td>
<td>1:20,000</td>
<td>5.9' above MLW</td>
</tr>
<tr>
<td>1601-1615 incl.</td>
<td>3-1-46</td>
<td>1512-1530</td>
<td>1:10,000</td>
<td>6.6' above MLW</td>
</tr>
</tbody>
</table>

Tide from (III): Actual tide observation at Philadelphia with correction to "Liston Point to Woodland Beach".

Mean Range: 5.8'  
Spring Range: 6.7'

Camera: (Kind or source) U.S. Coast and Geodetic Survey nine lens camera.  
Focal length 84".

Field Inspection by:  
E.L. Jones  
date: Juhe-Aug. 1946

Field Edit by: Donald G. Flippo  
R.J. Spe, Chief of Party  
date: 17 July to 31 July 1947

Date of Mean High-Water Line Location (III): As of date of photographs supplemented by field inspection during June-August 1946.

Projection and Grids ruled by (III) T.L.J.  
" " " checked by: T.L.J.

date: 8-28-46  

date: 8-28-46

date: 10-10-46  

date: 10-10-46

date: 1-47

Control plotted by: I.A. Senasack  
Control checked by: G. O. Fellers

date: 1-20-47 to 2-7-47

date: 4-1-47 to 5-12-47

date: 5/21/47 to 6/5/47

Radial Plot by: F.J. Tarcza & H.R. Rudolph

date: 1-47

date: 8-28-46

date: 10-10-46

date: 5-29-47

Detailed by: F.M. Senasack

Reviewed in compilation office by: J.W. Vonasek
STATISTICS (III)

Land Area (Sq. Statute Miles): 55

Shoreline (More than 200 meters to opposite shore): 1 1/4 statute miles

Shoreline (Less than 200 meters to opposite shore): 34 1/2 statute miles

Number of Recoverable Topographic Stations established: 4
Number of Bench Marks established: 21
Number of Temporary Hydrographic Stations located by radial plot: none

Leveling (to control contours) - miles: 99.5 statute 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 Edt. Corrections by:
Gladys S. Nottenburg

Jan. 1948
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</th>
<th>LATITUDE OR &amp;-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS</th>
<th>N.A. 1927-DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>LONGITUDE OR X-COORDINATE</td>
<td>FORWARD (BACK)</td>
<td>FORWARD (BACK)</td>
</tr>
<tr>
<td>Smyrna River Front</td>
<td>G-1751 Pg. 131</td>
<td>N.A. 1927</td>
<td>39° 21.1' 52.01&quot;</td>
<td>1603.9 (246.4)</td>
<td>1251.2 (185.1)</td>
</tr>
<tr>
<td>Range Lt., 1933</td>
<td></td>
<td></td>
<td>75° 30.1' 52.27&quot;</td>
<td>469.2 (1381.1)</td>
<td>17.9 (1418.7)</td>
</tr>
<tr>
<td>Fleming, 1933</td>
<td>G-1664</td>
<td></td>
<td>39° 21.1' 15.21&quot;</td>
<td>439.1 (1411.2)</td>
<td>1359.2 (374)</td>
</tr>
<tr>
<td>Fleming, 1933 R.M. No. 2</td>
<td></td>
<td></td>
<td>39° 21.1'</td>
<td>355.3 (1495.0)</td>
<td>1095.5 (341.4)</td>
</tr>
<tr>
<td>Lambersen, 1933</td>
<td>G-1664 Pg. 58</td>
<td></td>
<td>39° 20.1' 11.521&quot;</td>
<td>376.0 (1474.3)</td>
<td>1118.1 (318.8)</td>
</tr>
<tr>
<td>Sub. Sta. Lambersen</td>
<td></td>
<td></td>
<td>75° 37.1' 45.741&quot;</td>
<td>105.5 (1744.8)</td>
<td>745.0 (692.7)</td>
</tr>
<tr>
<td>Smyrna (Presbyterian Church Spire, 1933)</td>
<td>G-1751 Pg. 131</td>
<td></td>
<td>39° 18.1' 03.42&quot;</td>
<td>1494.1 (356.2)</td>
<td>1046.2 (391.6)</td>
</tr>
<tr>
<td>Smyrna Municipal Standpipe, 1933</td>
<td>G-1751 Pg. 131</td>
<td></td>
<td>75° 36.1' 48.65&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Stations underlined in red follow manuscript limits.

*This station is listed as Smyrna Methodist Episcopal Church Spire (Dec) 1933 (R. N. 1946)
(see revised page 63, acc. No. G-1751 dated 10-9-41)
SYMBOLS
Project Ph-7 (46)
30 April 1946

MEAN HIGH WATER LINE (fast line)

OFF SHORE EDGE OF MARSH (apparent shoreline)

GRASS IN WATER

IN SHORE LIMITS OF MARSH

MEAN LOW WATER LINE (infinite)

APPROXIMATE MEAN LOW WATER LINE

INTERMITTANT DRAINAGE

PERENNIAL DRAINAGE

CONTOURS

PLANE TABLE ELEVATION; FOR CONTOURS

FLY LEVEL ELEVATIONS

TRENCH MARKS, marked and described

TOPO STATIONS, natural object, described

TOPO STATIONS, marked and described

TOPO STATIONS, addition Hydro Control, not named

LANDMARKS

FIXED AIDS TO NAVIGATION, (official light list name)

TRIANGULATION STATIONS

SUBSTITUTE STATIONS

BOUNDARIES: Refer to U.S.G.S. Bulletin 783 E for symbol, ink in purple or violet ink.
ABBREVIATIONS FOR FIELD INSPECTION ON PHOTOS
Project Ph-7 (46)
12 April 1946

ROADS:
Rd - road
X - abandoned (delete)
RR - railroad track
RR (2) - railroad, 2 tracks
1,2,3,4,4a,Tr - road class

BUILDINGS (Cont'd)
Bo Ho - boat house
Ch - church
C,H. - courthouse
P.O. - post office
Sch - school
R R Sta - railroad station
Hosp - hospital

SHORELINE:
MHW - mean high water
MLW - mean low water
M - marsh
Mud - mud
S - sand
Rky - rocky
Rk - rock
Dk - dock
Jet - jetty
Bkhd - bulkhead

LANDMARKS & AIDS TO NAV:
TK - tank
TK (ELEV) - tank elevated
Stk - stack
Bn - beacon
Lt - light
Tr - tower
Rg - range
F Rg - front range
R Rg - rear range
Chm - chimney
Cup - cupola
S.Pipe - stand pipe
R,Tr - radio station
Gab - gable

STREAMS, PONDS:
D - large ditch
DX O small ditchh (delete)
Cr - creek
P - pond

BOUNDARIES:
Bdry - boundary
Cem - cemetery
F - fence

OBSERVATIONS TO NAV:
Snl - shoal
Obstr - observation
Cov - covers
Wk - wreck
Subm - submerged
Dol - dolpahn

BRIDGES:
Br - bridge
Culv - culvert
Cl - clearance
Hor - horizontal
Ver - vertical (above MHW)
Wo - wood
Conc - concrete

VEGETATION:
Gr - grass
WH - woods, hard wood
WS - woods, soft wood
WM - woods mixed
B - brush
SH - scattered hardwood
SS - scattered softwood
SM - scattered mixed
O - orchard

STATIONS:
H Sta - hydrographic station
BM - bench mark
T Sta - recoverable topo station
S Sta - substitute station
TBM - tidal bench mark
(d) - described
(dm) - described and marked
FIELD INSPECTION REPORT
T 8758 (39° 15' / 75° 30' / 7.5')
Project Ph-7 (47)
Sub-project C
E. L. Jones, Chief of Party

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

The work was started early in May 1946, by I. Y. Fitzgerald, Engineering Aid. He completed the Shoreline Surveys, Horizontal Control Recovery and Identification, BM recovery and identification and Supplemental 4th order levels. R. E. Rawson, Photo Aid, completed the southern half of the contouring and the writer, J. A. Clear, Engineering Aid, completed the contouring of the quadrangle as indicated on the attached sketch.

1. Description of the Area:

For the most part the land area is undulating with the elevation ranging from sea level to about 70 feet above Mean Sea Level.

Geologically the country is old with no prominent drainage patterns in the low lands or flood plains bordering the tidal zone. In the western portion of the quadrangle, the drainage pattern is more pronounced.

The entire area is a prosperous agricultural section, which is the principal industry of the area. There is some commercial fishing, but it is on a very small scale.

2. Completeness of Field Inspection:

The field inspection is felt to be adequate and complete. For full details refer to appropriate paragraph readings below.

3. Interpretation of the Photographs:

Two sets of photographs were used, single lens 1/10,000 scale contact prints, for shoreline inspection and horizontal control identification, and 9 - lens 1/20,000 scale photos for vertical control identification, contouring and interior inspection.

Since photography was of the first part of March, 1946, no difficulty was encountered in the interpretation of photographic
details for the various phases of the work. All photographs filed in Division of Photogrammetry General Files.

4. Horizontal Control:

Twelve horizontal control stations were searched for or recovered, of these four were identified on the photographs either by the substitute station method or pricked direct. However, only one station, Sayrina, Methodist Episcopal Church Spire, need to be used as horizontal Control according to Instructions for the project. Therefore, only one pricking card for Horizontal Control will be submitted.

5. Vertical Control:

Vertical control consisted of recovery and identification of existing bench marks on 9-lens photographs and establishing the following levels.

3rd order levels

Approximately 9.5 linear miles of 3rd order levels were completed during April 1946, by M. A. Stewart, Engineering Aid. Permanent Bench Marks were established at one mile intervals and identified on the photographs. Equipment and methods used were those as prescribed by the Division of Geodesy for 2nd order leveling.

4th order levels

About 90 linear miles of 4th order levels were completed during May, 1946. Elevations were determined by ywe leveling methods to the nearest 0.01 foot. The maximum error of closure was 0.07 feet of error; all errors of closure greater than 0.20 feet were prorated throughout the line. At about 1/2 mile intervals spot elevations were established and identified on the 9-lens photographs.

6. Contours and Drainage:

Contouring was done in the field directly on 1/20,000 scale 9-lens photographs by planetable methods. The contour interval was 10 feet.

Preliminary to field work a stereoscopic examination of the photographs was made; drainage was delineated and other data entered on the photos. After field work was completed, another stereoscopic examination was made to check the shapes of contours.
7. Mean High Water Line:
   The average range of tide is 6.0 feet.

8. Low Water Line:
   In general the low water line was not delineated because of the difficulty of viewing the shoreline at Low Water. Where such visits were practical, it was generally noted that the low water line and apparent shoreline are synonymous because most banks are perpendicular to the water. In a few instances the low water line was found to be outside the apparent shoreline because storms causing the banks to slough off, created a mud plain.

9. Wharves and Shoreline Structures:
   No comment necessary.

10. Details Offshore from High Water:
    No comment necessary.

11. Landmarks and Aids to Navigation:
    The Azimutn of Smyrna Range had previously been determined by triangulation. There is one new landmark to be charted.

    All other data on landmarks and Aids to Navigation is listed on the accompanying chart 567 and accompanying Chart Section, filed in Division of Charts.

12. Hydrographic Control:
    Four recoverable topographic stations were established, identified on the photographs and described on Form No. 524. Six additional recoverable topographic stations were established and described on Form No. 524. See "Notes Office Reviewer" attached to this report.

13. Landing Fields and Aeronautical Aids:
    None.

14. Roads:
    No comments necessary.

-3-
15. Bridges:

Only one bridge of any importance. A, 2 span, swing bridge over Smyrna River at Fleming's Landing. Pertinent data on bridge appears on Photo, D-1612.

16. Buildings:

No comments necessary.

17. Boundaries:

All boundaries were verified in the field and delineated on the photographs at the time of contouring.

18. Geographic Names:

Geographic Name information was obtained by the author at the time of contouring. All geographic name information will be compiled into a special report prepared by Lowell I. Bass, Engineering Aid.

19. Coast Pilot Information:

Coast Pilot information was investigated during the course of field work, and a special project report compiled by George E. Varnadoe, Photogrammetrist. Report not submitted.

Submitted 30 August 1946

Field Review
18 September 1946

James E. Hunsley
Photo. Aid

Approved 20 September 1946

Edmund L. Jones
Chief of Party
T-8758 (Smyrna Quadrangle) is one of ten topographic maps in Project No. Ph-7(46)C located along the Delaware River and Bay. These surveys are to be compiled in accordance with instructions dated 25 March 1946 and 19 July 1946 by graphic photogrammetric methods. The contouring will be compiled from data obtained by plane-table methods. All project instructions filed in Division of Photogrammetry Office files.

26. CONTROL:

See radial plot report for layout of control in this area. A list of the stations on Form No. M-2388-12 is included in this report.

27. RADIAL PLOT:

See report for combined radial plot covering the areas of T-8755 to T-8759 inclusive, submitted to the Washington Office, 26 February 1947.


The compilation is in accordance with the written instructions pertaining to Project Ph-7(46), dated 19 July 1946.

The contours were traced directly from the field photographs.

For shoreline details at a larger scale refer to Survey No. T-8780.

30. MEAN HIGH WATER LINE:

The mean high water line on T-8758 was traced from a reduction of map manuscript survey No. T-8780, scale 1:10,000.

31. MEAN LOW WATER LINE:

All of the mean low water line on T-8758 was traced from a reduction of map manuscript survey No. T-8780, scale 1:10,000.

32. DETAILS OFFSHORE FROM THE MEAN HIGH WATER LINE:

No comment.

33. WHARVES AND SHORELINE STRUCTURES:

No comment.

34. LANDMARKS AND AIDS TO NAVIGATION:

Refer to Form 567 attached to the descriptive report for Survey
No. T-8780 for data pertaining to one landmark shown on T-8758. Refer to Forms 567 attached to this report and to the field report for Quadrangle No. T-8758 for data pertaining to the three aids to navigation.

35. **HYDROGRAPHIC CONTROL:**

None.

36. **BRIDGES:**

All bridge information for the area covered by this report as listed in the U. S. Engineers "List of Bridges Over Navigable Waters in the U.S." dated July 1, 1941, was verified in the field; all clearances were carefully measured with a steel tape, and the published descriptions and clearances were found to be correct except for the following discrepancies, which were not reported to the Local District Engineer:

(Letter to the local Dist. Engr. being prepared by the Review Section)

<table>
<thead>
<tr>
<th>Bridge at:</th>
<th>Field Measurements</th>
<th>Listed Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleming Landing, Del.</td>
<td>Hor. Cl. left span 36.4 ft. [\text{right span} \sim 39.0.37.7 ] Vert. Cl. -2.0 - 5.1</td>
<td>36. ft [\text{curr14} ] 37.3 5.5</td>
</tr>
<tr>
<td>Smyrna, Northwest Branch</td>
<td>Hor. Cl. 4 spans 80-ft. (\text{all #16.2} ) two 40' spans</td>
<td>Vert. Cl. -5. (\text{sum} ) 5.6</td>
</tr>
<tr>
<td>Smyrna Landing</td>
<td>Hor. Cl. one 27.4</td>
<td>Vert. Cl. span 2.4</td>
</tr>
</tbody>
</table>

Geographic names have been taken from final name standards dated 12-9-46, furnished by the Washington Office. A list of the geographic names is attached to this report. List approved by L. Hook, Geographic Names Section, Division of Charts.

38. **JUNCTIONS:**

A satisfactory junction has been made with Survey No. T-8759 to the east. The junction will be made with Survey No. T-8755 to the north when that survey is compiled. No contemporary surveys exist to the south or west.

39. **DISCREPANCY OVERLAY:**

Descriptive and explanatory notes concerning doubtful topographic features have been lettered on the discrepancy overlay.

40. **BOUNDARIES:**

Legal boundary descriptions of the town of Smyrna, and of the District Boundaries were not furnished the compilation office; however, the field inspection party identified the boundaries of Smyrna on field photographs. The District Boundaries were delineated as shown in the U.S.G.S. Smyrna quadrangle. Verified by legal descriptions filed in Division of Photogrammetry General Files.
44. **COMPARISON WITH EXISTING TOPOGRAPHIC SURVEYS:**

T-8758 has been compared in detail, with the U. S. Geological Survey, Smyrna Quadrangle, scale 1:62,500 and found to be in good agreement, except the contours which are, in general, somewhat in disagreement with the U.S.G.S. Quadrangle.

45. **COMPARISON WITH NAUTICAL CHARTS:**

T-8758 has been compared to Nautical Charts No. 1218, scale 1:80,000, and No. 294, scale 1:40,000, and found to be in fair agreement.

The following topographic information shown on T-8758 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.

Respectfully submitted:
9 June 1947

[Signatures]

Photogrammetric Aid
Compilation and Descriptive Report

[Signatures]

Approved and Forwarded
11 June 1947

[Signatures]
NOTES TO OFFICE REVIEWER

T-8758 (39°15'/75°30'/7.5) Field Edit

Project PH-7 (46)

Sub-Division C

5. VERTICAL CONTROL

The elevations for SM7, SM8, and SM9 in the vicinity of 39°19' latitude, 75°31' longitude are not known. The field notes for this series of 3rd order level BM's was not received in this office. The elevations have been added to the manuscript. They were taken from Form 45,

36. BRIDGES

A tide curve has been drawn for use in determining the vertical clearances for the bridges at Flemings Landing, Smyrna Landing, and Smyrna, Northwest Branch.

40. BOUNDARIES

Boundary Monuments Nos. 87, 88, 113, 124, 150, and 152 along the boundary line of Bombay Hook Migratory Water-Fowl Refuge have been radially plotted on the survey in accordance with the field edit identification. These monuments were also identified on Map No. 13 BOM. 19A-Bombay Hook National Wildlife Refuge, Kent County, Del. by the field edit party. The boundary line was then traced from the above mentioned map by use of the vertical projector.

The descriptions and geographic positions of these monuments are being submitted on Form No. 524.

Respectfully submitted

Gladys S. Nottenburg
Cartographer (Photo.)

*This is evidence that BM 14, 1946 does not exist.
A letter of 17 June 1948 from Consho. depicts the assistant chief, Div. of Photogrammetry
Field Edit Report of Map Manuscript T-8756  
Project Ph-7(46)  
R. J. Sipe, Chief of Party

The field edit of this quadrangle was accomplished during the period 17 July to 31 July 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.

17. Boundary: Many discrepancies were found in the field inspector's location of the Bombay Hook Wild Life Refuge.

Boundary monuments for the refuge have been identified for correction of that boundary. A detailed map furnished by the Refuge manager has been included for transferring the boundary to the manuscript. Common points were shown on both the refuge map and the photographs.

46. Methods: All delineated features such as roads, structures, drainages, and contours were checked either visually by traveling on roads or trails or by planimetable method.

Delineation and some additions were made directly on the field edit sheet. Some additions and corrections were noted on the photographs with a reference to the photographs 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: Some compiled roads and trails were deleted during the field edit. These were, however, valuable to the field editor in many instances. Several small outbuildings had been compiled but these have been deleted. Many structures were added and many wooded swamps had not been properly interpreted by the compiler and have been corrected on the field edit print.

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:** One vertical accuracy test was made in this quadrangle.

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.

Mr. Wilbert Rawley
Leipsic, Delaware

Respectfully submitted,

Donald G. Flippo
Photogrammetric Aid
5 August 1947
Big Oak Corners
Bombay Hook Migratory Waterfowl Refuge
Brenford
Brick Store
Broadway Meadows
Chambersville
Corks Point Ditch
Deakynville
Delaware River
Duck Creek
Dupont Boulevard
Dutch Neck Crossroads
Eagles Nest Landing
Flemings Landing
Friendship Church M.E.
Hawkey Branch
Kent County
Lake Como
Leipsic River
Long Bridge
Mill Creek
New Castle County
Raymonds Neck
Raymonds Neck Road
Sawmill Branch
Serversons Neck
Serversons School
Shorts Landing
Smyrna
Smyrna Landing
Smyrna River
Straight Ditch
Taylors Gut
Tent
Thoroughfare Neck
Walker
Whitehall Crossroads

Add:
Belmont Hall
 Odd Fellows Cemetery
 State Welfare Home
 Districts 1 and 2, Kent Co.
 District 15, New Castle Co.
 State Nos. 6, 9.
 Pennsylvania R.R.

Names preceded by * are approved. 5/17/48.
L. Heck
Division of Photogrammetry
Review Report of
Topographic Map Manuscript T-8758

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

26. Control.--The triangulation station name Smyrna, Presbyterian Church, Spire, 1933 is incorrect as listed on the attached form M-2388-12. The correct name is Smyrna, Methodist Episcopal Church, Spire, 1933, and is so listed on a revision copy of page 62, Acc. No. O. 1751, dated 10-2-47. Refer to the letter of 17 October 1946 on Triangulation attached to the radial plot report for T-8755 to T-8759, inclusive.

The elevations for benchmarks SM7, SM8, and SM9, were added to the manuscript. They were not available at the time of compilation.

36. Bridges.--The data for the bridge at Smyrna Landing was added to the listing in the descriptive report. This bridge is listed in the U. S. Engineers "List of Bridges Over Navigable Waters in the U. S."

The field edit has noted that the river above the bridge at Smyrna Landing is not navigable. The bridge data for the bridge above Smyrna Landing at Smyrna, Northwest Branch were not deleted from the descriptive report since this bridge is listed in the U.S.E. bridge list.

43. Comparison with Previous Surveys.--

<table>
<thead>
<tr>
<th>Survey</th>
<th>Scale</th>
<th>Date 1</th>
<th>Date 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>T-63</td>
<td>1:20,000</td>
<td>1841</td>
<td></td>
</tr>
<tr>
<td>T-1441</td>
<td>1:10,000</td>
<td>1841</td>
<td></td>
</tr>
<tr>
<td>T-1517</td>
<td>1:20,000</td>
<td>1882-3</td>
<td></td>
</tr>
<tr>
<td>T-3989</td>
<td>1:20,000</td>
<td>1910</td>
<td></td>
</tr>
<tr>
<td>T-1567</td>
<td>1:10,000</td>
<td>1931-2</td>
<td></td>
</tr>
</tbody>
</table>

These surveys are superseded by the map manuscript in all common areas.

44. Comparison with Existing Topographic Surveys.--

Dover, Del.--Md. N.J., U.S.G.S., 1:125,000, 1896
Smyrna, Del.--N.J., U.S.G.S., 1:62,500, 1926-7

45. Comparison with Nautical Charts.--

<table>
<thead>
<tr>
<th>Chart No.</th>
<th>Scale</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>294</td>
<td>1:40,000</td>
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This map manuscript has not been applied to nautical charts 294 and 1218.
48. Vertical Accuracy Test.—The vertical accuracy test for this quadrangle meets the project specification. This map complies with the national standard map accuracy requirements.

Reviewed by:

K. N. Makl
K. N. Makl
5-18-48

APPROVED:

J. N. Griffith
Chief, Review Section
Div. of Photogrammetry

J. P. Wilson
Chief, Nautical Chart Branch
Div. of Charts

K. T. Adams
Chief, Div. of Photogrammetry

C. K. Green
Chief, Div. of Coastal Surveys
## Record of Application to Charts

<table>
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A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.