Form 504
U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Shoreline Survey
Project No. PH-7(46)
Field No. Office No. T-8782

LOCALITY
State Delaware
General locality Delaware River
Locality Woodland Beach to Locust River

1946

CHIEF OF PARTY

E. L. Jones
William F. Deane

LIBRARY & ARCHIVES

DATE September 8, 1948
9/5/51 - CH 1218 examined for cuticular lesions; not applied at this time. AE
DATA RECORD

T-8782

Quadrangle (II):

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

Field Office: New Castle, Delaware

Chief of Party: E. L. Jones

Compilation Office: Chief of Party: Wm. F. Deane

Baltimore Photogrammetric Office

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

Copy filed in Descriptive Report No. (VI)
Office Files of the Division of Photogrammetry

Completed survey received in office: Feb. 11, 1947

Reported to Nautical Chart Section: Feb. 18, 1947

Reviewed: May 1948 Applied to chart No. Date:

Redrafting Completed:

Registered: Aug. 16, 1948 Published:

Compilation Scale: 1:10,000 Published Scale:

Scale Factor (III): 1.000

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

Reference Station (III): GAME, 1933

Lat.: Long.: Adjusted Unadjusted
39° 18' 12.297" 379.2m 75° 26' 14.083" 337.4m

State Plane Coordinates (VI):

X = Y =

Military Grid Zone (VI)
### PHOTOGAPHS (III)

<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>46-D1591-96 incl.</td>
<td>3/1/46</td>
<td>1505</td>
<td>1:10,000</td>
<td>1.5' above M.L.W.</td>
</tr>
<tr>
<td>46-D1933-40 incl.</td>
<td>3/12/46</td>
<td>1100</td>
<td>1:10,000</td>
<td>2.0' above M.L.W.</td>
</tr>
<tr>
<td>46-D1942-44 incl.</td>
<td>3/12/46</td>
<td>1108</td>
<td>1:10,000</td>
<td>1.9' above M.L.W.</td>
</tr>
</tbody>
</table>

Tide from (III): Actual tide observations at Atlantic City, N.J., with corrections to Woodland Beach to Mahon River.
Mean Range: 5.8'  Spring Range: 6.7'

Camera: (Kind or source) U. S. Coast and Geodetic Survey wide angle single lens type "B" camera - focal length 12". All negatives are on file in the Washington Office.

Field Inspection by: 
E. L. Jones  

Field Edit by:  
D. C. F.  

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

Projection and Grids ruled by (III) T.L. Janson  
" " " checked by: S.R.  

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

Radial Plot by: F. J. Tarcza  

Detailed by: R. E. Rudolph  

Reviewed in compilation office by: J. W. Vonasek  

Elevations on Field Edit Sheet checked by: No Applicable
STATISTICS (III)

Land Area (Sq. Statute Miles): 8

Shoreline (More than 200 meters to opposite shore): 6½ statute miles.

Shoreline (Less than 200 meters to opposite shore): 21 statute miles (centerline only)

Number of Recoverable Topographic Stations established: 5

Number of Temporary Hydrographic Stations located by radial plot: 3

Leveling (to control contours) - miles: Not Applicable

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:
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>LATITUDE OR y-COORDINATE LONGITUDE OR x-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>BOMBAY (U.S.E.), 1932</td>
<td>G-1664</td>
<td>39° 18' 16.314''</td>
<td>1429.1</td>
<td>(421.2)</td>
</tr>
<tr>
<td></td>
<td>Pg. 76, 1927</td>
<td>75° 26' 19.911''</td>
<td>477.0</td>
<td>(960.5)</td>
</tr>
<tr>
<td>GAME, 1933</td>
<td>G-1664</td>
<td>39° 18' 12.297''</td>
<td>379.2</td>
<td>(1471.1)</td>
</tr>
<tr>
<td></td>
<td>Pg. 58</td>
<td>75° 26' 14.082''</td>
<td>337.4</td>
<td>(1100.2)</td>
</tr>
<tr>
<td>Sub. Sta. &quot;A&quot;</td>
<td>GAMS</td>
<td>39° 18' 39°</td>
<td>604.9</td>
<td>(1245.4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>75° 26'</td>
<td>306.4</td>
<td>(1131.2)</td>
</tr>
<tr>
<td>REFUGE, 1946</td>
<td>Field Computation Unadj.</td>
<td>39° 15' 59.325''</td>
<td>1829.5</td>
<td>(208.8)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>75° 24' 41.478''</td>
<td>994.4</td>
<td>(1374.0)</td>
</tr>
</tbody>
</table>

1 ft. = 304.8006 meter

COMPUTED BY: L. A. Somasack

DATE 9/18/46

CHECKED BY: G. O. Fallers

DATE 9/18/46
FIELD REPORT
FOR 8782
SURVEY NO. T-8759

See the field report for Survey No. T-8759.

The field inspection and field edit of T-8782
were done contemporaneously with those operations
for T-8759 and the reports on these phases
are contained in the Descriptive Report for
T-8759.

S. V. Siftick
COMPILATION REPORT
MAP MANUSCRIPT, SURVEY NO. T-8782

26. **CONTROL:**

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

27. **RADIAL PLOT:**


26. **DELINEATION:**

The compilation is in accordance with the written instructions pertaining to Project No. PH-7(46) dated 19 July 1946.

Neither the photographs nor the field inspection available for delineation of this manuscript were adequate. Only one photograph covers the area at the mouth of Hay Ditch. The recoverable photo (topographic) station IDAE, 1946, which falls within this area, had to be pricked direct from the photographs holding the nearest available detail points. All the mean high water line was delineated after stereoscopic examination of the photographs because the field unit, in attempting to identify what they described as "apparent shoreline - top of low bluff (marsh line)", identified instead the outer limits of mud and/or vegetation as it appeared on the photographs which were taken very near mean low water. Refer to item 28 of Final Review Report for clarification.

30. **MEAN HIGH WATER LINE:**

The mean high water line has been delineated in accordance with the office interpretation of the photographs. (See No. 28 above).

31. **LOW WATER LINE:**

Approximately 10% of the mean low water line was identified by the field unit. However, since the photographs were taken very near low water it was assumed that the outer limits of vegetation or mud was the approximate position of the mean low water line and has been shown on the map.

31a. **SHOAL AND REEF LINES**

None visible on the photographs.
32. DETAILS OFFSHORE FROM THE MEAN HIGH WATER LINE:

Two wrecks, one at the mouth of Hay Ditch and the other approximately 3/4 mile southeast of Sluice Ditch are shown on the map.

33. WHARVES AND SHORELINE STRUCTURES:

No comment.

34. LANDMARKS AND AIDS TO NAVIGATION:

Refer to Item 11 of the field report for T-8759.

35. HYDROGRAPHIC CONTROL:

3 hydrographic signal sites.

A descriptive list of the hydrographic signal sites has been compiled and is attached to this report. Two additional copies have been furnished for the use of the hydrographic parties.

37. GEOGRAPHIC NAMES:

Geographic names were taken from a geographic names investigation furnished by the Washington office. It is to be noted that there are two streams with the name "Broad Gut", one near Matty Ditch and the other near Sluice Ditch. A list of the names is attached to this report. The Field E 1st T-8759, and the Geographic Names Section of the Division of Charts, approve 2 streams with name "Broad Gut".

38. JUNCTIONS:

Junction with Survey No. T-8760 to the northwest has been made and is in agreement. There are no other junctions with surveys of the same scale. T-8782 is within the area of Survey No. T-8759.

44. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES:

T-8782 has been compared in detail with the United States Army Engineers, Shiloh, Md-De1 Quadrangle, scale 1:62,500 edition of 1941 and found to be in good agreement.

45. COMPARISON WITH NAUTICAL CHARTS:

T-8782 has been compared with chart No. 1218, scale 1:80,000, published January 1942, corrected 15 July 1946.

The following topographic information shown on T-8782 is of sufficient importance to warrant immediate application to the chart:

Two wrecks, one at the mouth of Hay Ditch and the other approximately 3/4 mile southeast of Sluice Ditch.
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 only in part and will be completed by the hydrographic party.

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

Respectfully submitted
16 April 1947

Ruth E. Rudolph
Photogrammetric Aid
Compilation and Descriptive Report

Harry E. Rudolph
Supervisor

Joseph W. Newton
Photogrammetric Engineer
Photogrammetric Office
Reviewer

Approved and Forwarded
27 April 1948

Officer in Charge
Baltimore Photogrammetric Office
Shoreline manuscript T-8782 is a 1:10,000 scale map manuscript entirely covered by the 1:20,000 scale quadrangle T-8759.

The field inspection for the two maps was carried on as a single mapping operation with the division of the two maps occurring during graphic compilation.

A field edit survey of T-8759 was made and where applicable has been applied to this map manuscript.

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

26. Control.--Sub station "A", Game, has been removed from the map manuscript. The field inspection party did not recommend it for control of the radial plot because the prickling was indefinite. They selected an alternate station, Bombay Sextant which was used to control the plot.

Even though the compilation office obtained a radially plotted position for sub-station "A", Game, which agreed with the computed position within the required tolerances, it has been removed because the sub-station was neither marked, nor used to control the radial plot.

28. Delineation.--The compilation office reported inadequate field inspection and photo coverage.

**Inadequate Field Inspection:** The delineation of shoreline features followed the field inspection notes and was found to be adequate and to comply with the project instructions.

It is believed that the author of the compilation report, confused manuscript T-8782 with another manuscript on the eastern side of Delaware Bay, where differences have occurred between field and office interpretation of shoreline.

**Inadequate Photo Coverage:**

Even though the single lens photo coverage was sketchy in some places, the accuracy of the map was not materially affected, as indicated by the contemporary 1:20,000 scale nine-lens photo plot used in quadrangle T-8759.
The nine-lens plot both strengthened and proved the relative accuracy of the shoreline map manuscript, as indicated by the location of recoverable photo (topographic) stations.

The location of all photo (topographic) stations by the two plots was in excellent agreement except station 1DAE, 1946.

1DAE was located on the shoreline manuscript without the aid of cuts, as overlapping photo coverage was not available. The nine-lens plot located the same station by cuts and agreement was well within the tolerances for the 1:20,000 scale map manuscript and slightly exceeded the accuracy requirements for the 1:10,000 scale shoreline manuscript.

It is doubtful that improvement in the location of station 1DAE is possible, and it is recommended that the station be used with caution. The location may be in error as much as 7 or 8 meters at the relative map scales.

37. Geographic Names.--All Geographic Names shown on the map manuscript have been approved by the Geographic Names Section, of the Division of Charts.

44. Comparison with Existing Topographic Surveys.--In addition to the comparison mentioned under Item 44 of the compilation report, comparison was made with the following topographic surveys. The planimetry in all common features is superseded by T-8782.

<table>
<thead>
<tr>
<th></th>
<th>Map No.</th>
<th>Scale</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>63</td>
<td>1:20,000</td>
<td>1941</td>
<td></td>
</tr>
<tr>
<td>111</td>
<td>1:10,000</td>
<td>1881</td>
<td></td>
</tr>
<tr>
<td>1547b</td>
<td>1:20,000</td>
<td>1882-3</td>
<td></td>
</tr>
<tr>
<td>3088</td>
<td>1:20,000</td>
<td>1910</td>
<td></td>
</tr>
<tr>
<td>4667</td>
<td>1:10,000</td>
<td>1931-2</td>
<td></td>
</tr>
</tbody>
</table>

45. Comparison with Nautical Charts.--

Comparison was made with the following nautical charts.

<table>
<thead>
<tr>
<th></th>
<th>Map No.</th>
<th>Scale</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1218</td>
<td>1:80,000</td>
<td>1942</td>
<td>Corrected to Dec. 1947</td>
</tr>
<tr>
<td>249</td>
<td>1:50,000</td>
<td>1935</td>
<td>Corrected to Nov. 1947</td>
</tr>
</tbody>
</table>

This map manuscript has not been applied to nautical charts. Refer to compilation report for information shown on T-8782 which is of sufficient importance to warrant immediate application to the charts.

47. Adequacy of Compilation.--An examination of map manuscript T-8782 reveals it to be complete in all details as
a base for nautical charts or hydrographic surveys.

Reviewed by:

Harland R. Gravat
May 1, 1948

APPROVED:

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

K. T. Adams
Ch., Div. of Photogrammetry

E. T. Green
Chief, Div. of Coastal Surveys
GEOGRAPHIC NAMES

Bank Ditch
Bay Pond
Bombay Hook Island
Bombay Hook National Wildlife Refuge
Bombay Hook Point
Broad Gut (near Matty Ditch)
Broad Gut (near Sluice Ditch)
Cove Pond Ditch
Delaware River
Duck Creek
Fraland Beach
Georges Island
Goose Point
Hay Ditch
Log Pond
Long Bar Point
Matty Ditch
Mikes Ditch
Raymond Gut
Raymond Pond Pool
Salt Pond Ditch
Shearness Gut
Sluice Ditch
Terrapin Gut
Thrumcap
Wier Gut
The 2 millimeter circles, accompanied with a name and date are the position of the recoverable photo (topographic) station. All other such circles, accompanied with a number only, are the positions of the hydrographic signal sites. Two copies of the list of descriptions of the hydrographic signal sites have been furnished for your use.

The following topographic information shown on T-8782 is of sufficient importance to warrant immediate application to the chart:

Two wrecks, one at the mouth of Hay Ditch and the other approximately 3/4 mile southeast of Sluice Ditch.

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 only in part and will be completed by the hydrographic party.

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

Respectfully submitted
16 April 1947

Photogrammetric Aid

Approved and Forwarded
27 April 1948

[Signature]
Officer in Charge,
Baltimore Photogrammetric Office
<table>
<thead>
<tr>
<th>Signal No.</th>
<th>Description</th>
<th>Photo No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5901</td>
<td>Station is the bowsprit of an old wreck located on the eastern shore of Bombay Hook Island approximately 3/4 mile southeast of Sluice Ditch.</td>
<td>46-D-1944</td>
</tr>
<tr>
<td>5902</td>
<td>Station is a large black post about 8 feet high located on the eastern shore of Bombay Hook Island about midway between Sluice Ditch and Station 5901.</td>
<td>46-D-1944</td>
</tr>
<tr>
<td>5903</td>
<td>Station is the south chimney of house located on the west side of road about one mile southeast of Woodland Beach.</td>
<td>46-D-1939</td>
</tr>
</tbody>
</table>

Listed by:  

Photogrammetric Aid

Checked by:  

Photogrammetric Engineer