

8763

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

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic-Photogrammetric

Field No. _____ Office No. T-8763
Project No. PH-7(46)A

LOCALITY

State Delaware

General locality Delaware Bay

Locality SE of Bowers

1946

CHIEF OF PARTY

Thos. B. Reed

LIBRARY & ARCHIVES

DATE April 16, 1948

8763

DATA RECORD

T- 8763

Quadrangle (II):

Bowers S.E. ✓

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

Field Office:

New Castle, Del.

Chief of Party:

E. L. Jones

Compilation Office:

Baltimore, Md.

Chief of Party:

Thos. B. Reed

Instructions dated (II III):

25 March 1946

19 July 1946

Copy filed in ~~Descriptive~~
~~Report No. T-~~ (VI)Division Photogrammetry
Office File

Completed survey received in office:

23 January 1948

Reported to Nautical Chart Section:

Reviewed: 16 March 1948

Applied to chart No.

Date:

Redrafting Completed:

Registered: 5 April 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): SANDY 1933

Lat.: 39° 01' 55.726" 1718.4m
(131.8)Long.: 75° 21' 29.197 702.2m
(740.9)Adjusted
~~Unadjusted~~

State Plane Coordinates (VI): Delaware

X = 516,634.93 feet Y = 375,896.22 feet

Military Grid Zone (VI)

PHOTOGRAPHS (III)
75th meridian

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
15599-15600	3-21-46	1303	1:20,000	4.6
15591-15593	3-21-46	1230	1:20,000	5.0

Tide from (III): Actual tide observations at Atlantic City corrected to
St. Jones River to Mispillion River.

Mean Range: 5.4' Spring Range: 6.3'

Camera: (Kind or source) U.S. Coast and Geodetic Survey nine lens camera,
focal length 8 $\frac{1}{4}$ inches

Field Inspection by: E.L. Jones date: April to June 1946

Field Edit by: Donald G. Flippo date: 27 Aug. to 29 Aug. 1947
R.J. Sipe, Chief of Party

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

Projection and Grids ruled by (III) T.L.J. date:
" " " checked by: T.L.J. date: August 26, 1946

Control plotted by: Leroy A. Senasack date: Jan. 6, 1947

Control checked by: George O. Fellers date: Jan. 7, 1947

Radial Plot by: Frank J. Tarcza date: April 18, 1947

Detailed by: Mildred M. Trautman date: May 9, 1947
June 9 to 17, 1947.

Reviewed in compilation office by: Joseph W. Vonasek date: June 25, 1947

manuscript
Elevations on ~~Field Edit Sheet~~ J.W. Vonasek
checked by: ~~Frank J. Tarcza~~ date: June 25, 1947

STATISTICS (III)

Land Area (Sq. Statute Miles): 4-3/4

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

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

Number of Recoverable Topographic Stations established: 4

Number of Temporary Hydrographic Stations located by radial plot: 5

Leveling (to control contours) - miles: None

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

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

Remarks:

Field Edit Corrections ^{applied to map manuscript} by:
Gladys S. Nottenburg

Jan. 1948

PH-7(46)A

PROJECT NO.:

SCALE OF MAP.....1:20,000..

SCALE FACTOR

[illegible]

1 FT. - 3048006 METER *the Senack*
COMPUTED BY: L.A. Senasack

DATE 12/31/46



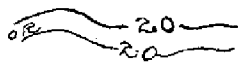
CHECKED BY: R. E. Rudolph

DATE:

1/2/47

M - 2388 - 12

SYMBOLS
Project Ph-7(46)
12 April 1946

MEAN HIGH WATER LINE (fast line).....	— — — —
OFFSHORE EDGE OF MARSH (apparent shoreline).....	— — — —
GRASS IN WATER.....	Gr
INSHORE LIMITS OF MARSH.....	— — — —
MEAN LOW WATER LINE (definite).....	— — — —
APPROXIMATE MEAN LOW WATER LINE.....
INTERMITTANT DRAINAGE.....	
PERENNIAL DRAINAGE.....	
CONTOURS.....	
PLANE TABLE ELEVATIONS FOR CONTOURS.....	X 17 OR X 17
FLY LEVEL ELEVATIONS.....	CE 12 SD. 2
BENCH MARKS, marked and described.....	○ J 16, 1940 36.47 ft. / KENT, 1946 (dm)
TOPO STATIONS, marked and described.....	/ TANK (ELEV) steel (75' high)
TOPO STATIONS, NATURAL OBJECTS.....	/ Landmarks STACK, block (25')
LANDMARKS.....	/ H. S. 12 #
HYDROGRAPHIC STATIONS, assign No., describe on photo....	/ CHERRY PT LT II
FIXED AIDS TO NAVIGATION (official list name).....	/ SMITH 1925
TRIANGULATION STATIONS.....	/ SS SMITH 1925
SUBSTITUTE STATIONS.....	

BOUNDARIES: Refer to U.S.O.S. Bulletin 788 E for
symbol, ink in purple or violet ink.

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

FIELD INSPECTION REPORT
T 8763 (39° 00' / 77° 15' / 7.5').
PROJECT PH-7(46)
Sub-project A
E. L. Jones, Chief of Party

1. Description of the area:

This quadrangle is located on the western shore of Delaware Bay, east of the town of Frederica, in Kent County, Delaware. About 7/8 of the area of the quadrangle is water. Less than half of the remainder is fast land. The land area is gently sloping. Excess water runs off into the marsh area, which is partially drained by mosquito control ditches.

The land is low, the elevation ranging from sea level to about 13 feet above M.S.L. in the southwestern corner of the quadrangle.

About half of the fast land is covered by woods, both hard and softwoods.

The quadrangle is rural. Big Stone Beach in the extreme southeast corner of the quadrangle is the only settlement. Agriculture is the chief means of livelihood for the residents of the area.

2. Completeness of Field Inspection:

Field inspection was done by two parties. The contour party was responsible for interior inspection, which was done as contouring progressed; while the shoreline party was responsible for shoreline inspection.

Field inspection is believed to be adequate. Least emphasis was placed on the in-shore edge of marsh, mosquito control ditches and ponds, as their interpretation should be evident to the compiler.

There are no prominent telephone or power transmission lines in the area.

Woods were classified in accordance with paragraph 54 of the Instructions for this project, dated 25 March, 1946.

Deletions have been shown on the photographs in green ink.

3. Interpretations of the photographs:

Open land appears on the photographs from white to a light

* Additional
Data has been furnished. Cross Ledge Lt
was used as initial. Refer to Control
Station Identification Card for Sandy, 1933,
dated 3-31-47, in Photogrammetry Division
General Files. Also refer to item No. 6 in
Radical Plot Report.

gray tone. Woods are a medium to a dark gray tone. Hardwood appearing as a medium gray.

In the marsh area the smooth, dark spots are ponds. The grass area of the marsh ranges from a light medium to medium gray tone.

4. Horizontal Control

The horizontal control was recovered and identified according to paragraphs 13-33 inclusive, of the Instructions for this project, dated 25 March, 1946.

The work consisted of recovery and identification of control on the photographs and was completed in April, 1946, as a training program under the direction of John M. Neal, Photogrammetric Engineer. The trainees were Thomas W. Merriken, Jr., Photo. Aid, and Frederick F. Kaiser, Air Photo. Observer.

Two stations were recovered and identified. Murderkill Harbor Defense Tower was used as the initial in measuring the direction to the point "C" at "Sandy, 1933", and, as the position of this tower is not known, the data furnished is incomplete. However, the identification of the other station, "Stone 2, 1933", is positive and sufficient data is furnished for use in radial plot as requested on Hqr. Control Index as furnished by Washington office. Therefore, horizontal control recovery and identification for this quadrangle meets the requirements of paragraph 21 of the Instructions for this project, dated 25 March, 1946. ** see opposite page*

The stations are listed below, giving pertinent data:

STATION	ESTABLISHING AGENCY	RECOVERED ON PHOTO	IDENTIFIED ON PHOTO NO.	METHOD OF IDENTIF.	QUAD. T8763
1933 SANDY	U.S.C.&G.S.	yes	15600	sub-stg	yes
1933 STONE 2	U.S.C.&G.S.	yes	15600	sub-sta.	yes

5. Vertical Control:

There are no bench marks known to be within the limits of this quadrangle. No spot elevations were established by wye leveling methods in this area. The leveling in T 8764 was planned to furnish sufficient control for elevations in this quad by planetable methods at the time of contouring.

6. Contours and Drainage:

Contouring was begun May 22, 1946, and completed May 24, 1946, by Robert E. Rawson, Engineering Aid. The contour interval is 10 feet. The work was done by planetable methods directly on photograph 15593.

Stereoscopic examinations of the photographs were made from time to time to determine drainage and occasionally form lines were added. Drainage was checked in the field. The general shape of the contours were checked under the stereoscope. Elevations of critical points are shown and on other points where necessary for better topographic expression.

7. Mean High Water Line:

Delaware Bay is affected by the tide all along the shoreline of this quadrangle. The mean predicted range at Mispillion River entrance four miles south is 5.0 feet.

The shoreline was inspected during the last part of April, 1946, by Frederick F. Kaiser, Air Photo. Observer, and Richard I. Morton, Photo. Aid.

The mean high water line as seen from off-shore is indicated by a dashed red line on the photograph at intervals where the line is indistinct. At frequent intervals the MHWL was verified by actual measurements from points of detail.

All shoreline work was done on photograph 15600.

8. Mean Low Water Line:

No special attempt was made to locate the low water line on this quadrangle. If, during the shoreline inspection, an area was visited at time of low water, the low water line and areas awash are indicated on the photograph.

9. Wharves and Shoreline Structures:

There are no wharves within the limits of this quadrangle.

The only shoreline structure is a bulkhead at Bennet's Pier, which has been delineated on the photograph.

10. Detail Off-shore From Highwater Line:

As the shoreline inspection of this quad was done from a small

boat, it was not practical to range very far from shore. In some sections, however, it was too shallow to come in closer than one to two hundred yards with an outboard motor. There were no rocks or wrecks seen at low water.

11. Landmarks and Aids to Navigation:

There were no non-floating Aids to Navigation within the limits of the quadrangle.

One new landmark for charts was indicated on Photo 15600 and listed on the accompanying form #567. Filed in Division of Charts.

There were no charted landmarks in the area covered by this quadrangle.

12. Hydrographic Control:

Hydrographic Control was established and identified on the photographs by the shoreline party. In addition to existing horizontal control, four recoverable topographic stations were established; and ^{five} ~~six~~ prominent objects of a less permanent nature designated as hydrographic stations, established. The ~~six~~ latter stations were numbered consecutively from one, beginning at the southern limits of the quadrangle and progressing northwestward along the shoreline. The first two digits of the number indicates the quadrangle number and the last two digits indicate the number of the station. 6301 is the number of the first station and 6306 is the number of the last station.

The following is a list of the recoverable topographic stations established along the shoreline of this quadrangle. Form 524 is submitted for each of these stations. Form M-2226-12 is not submitted.

STATION	IDENTIFIED ON PHOTO	METHOD OF IDENTIF.	Filed in Division Photogrammetry General Files
BEACH	15600	To be picked under stereoscope	
CAPE	15600	Picked direct	
JARS	15600	Picked direct	
LION	15600	Picked direct	

13. Landing Fields and Aeronautical Aids

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

14. Roads:

Roads were classified in accordance with paragraph 49 of the instructions, except for farm and wagon roads of a temporary and seasonal nature which were not deleted. It is believed the delineation of these roads will aid the field edit party who can delete them after they have served their usefulness.

15. Bridges:

There are no bridges over navigable water in this quadrangle.

16. Buildings:

All buildings were circled on the photograph in red ink. Out buildings and abandoned buildings were deleted.

17. Boundaries:

There are no boundaries to be shown in this quadrangle.

18. Geographic Names:

Geographic names are the subject of a special report, Ph-7(46)A, by Lowell I. Bass, Photogrammetric Aid. See attached list for T-8763.

19. Coast Pilot Information:

Coast Pilot Information is the subject of a special report, Ph-7(46)A, by George E. Varnadoe, Photogrammetric Engineer. None submitted.

Respectfully Submitted

Robert E. Rawson

Robert E. Rawson,
Photo Engineer

Approved and Forwarded
June 21, 1946

Edmund L. Jones

E. L. Jones, Chief of Party

COMPILATION REPORT
MAP MANUSCRIPT - SURVEY T-8763

T-8763 (BOWERS SE quadrangle) is one of 4 topographic manuscripts in Project No. Ph-7(46)A 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. Filed in Division Photogrammetry Office Files.

26. CONTROL

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

27. RADIAL PLOT

The radial plot for the area of this survey was part of a combined radial plot made with celluloid templates for Surveys Nos. T-8761 to T-8764 incl. the report for which was submitted to the Washington Office May 12, 1947.

28. DELINEATION

Filed in Division Photogrammetry
General Files. Attached
Desc. Report T-8761.

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

Photographs and field inspection were, in general, adequate and satisfactory.

The contours were traced directly from the field photographs.

The inshore limits of marsh were delineated under the stereoscope.

29. SUPPLEMENTAL DATA

None

30. MEAN HIGH WATER LINE

The shoreline was delineated in accordance with field inspection data.

31. MEAN LOW WATER LINE

No mean low water line is shown on the map manuscript. See paragraph 8 of the field inspection report. ^{approx.} The MLW limits of two sand spits on Sandpoint are shown on the manuscript.

31-A SHOAL AND REEF LINES

No shoal and reef lines are shown on the map manuscript.

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 No. 567 included with this report. Filed in Division of Charts.

35. HYDROGRAPHIC CONTROL

Five hydrographic signal sites fall within the limits of the map manuscript. One additional signal site has not been shown as such because it is a recoverable photo (topographic) station. The descriptions are lettered on the map manuscript.

36. LANDING FIELDS AND AERONAUTICAL AIDS

None

37. DISCREPANCY OVERLAY

A discrepancy overlay which contains notes in reference to conflicting data is being submitted with the map.

38. GEOGRAPHIC NAMES

Geographic names were taken from final names standards dated 12-9-46 furnished by the Washington Office. A list of geographic names is attached to this report. Approved by L. Heck, Geographic Names Section, Division of Charts

39. JUNCTIONS

The junction to the south has been made with Survey No. T-8764 and is in good agreement.

The junction to the west has been made with Survey No. T-8762 and is in good agreement.

To the east and to the north is the project limits.

40. BRIDGES

None.

44. COMPARISON WITH EXISTING QUADRANGLES

T-8763 has been compared in detail with the U. S. Geological Survey Bowers quadrangle and found to be in good agreement.

45. COMPARISON WITH NAUTICAL CHARTS:

T-8763 has been compared with Nautical Chart No. 1218, scale 1:80,000, and was found to be in good agreement.

The following topographic information shown on T-8763 is of sufficient importance to warrant immediate application to the chart.

None.

45. COMPARISON WITH NAUTICAL CHARTS:(Continued)

The following topographic details above the plane of mean high water are not shown on the map manuscript but are believed to still exist and should be carried forward on the chart:

None

Low water features are not shown. They will be investigated by the hydrographic party. See Item 31.

Respectfully submitted
18 June 1947

Mildred M. Trautman
Photogrammetric Aid
Compilation and descriptive
report.

Joseph W. Vonnack
Photogrammetric Engineer
Photogrammetric Office Reviewer

Harvey R. Rudolph
Supervisor

Approved and forwarded
9 July 1947

Thos B. Runt
Officer in Charge
Baltimore Photogrammetric Office

Field Edit Report of Map Manuscript T-8763
Project Ph-7(46)
R.J. Sipe, Chief of Party

The field edit of this quadrangle was accomplished during the period 27 August to 29 August 1947 by Donald G. Flipppo, 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.

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

Delineation and some additions were made directly on the field edit sheet. Some additions and corrections were noted on the photographs with reference to the photograph on the field edit print. A legend to the symbols and to the colored inks used during the field edit is on the field edit prints.

47. Adequacy of the Compilation: The relative position of compiled detail was found to be entirely satisfactory. With the addition of the field edit data to the manuscript, this map will be complete and accurate.

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

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

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

Mr. W.M. Stevenson
Frederica, Delaware

Respectfully submitted

Donald G. Flipppo

Donald G. Flipppo
Photogrammetric Aid
2 September 1947

Division of Photogrammetry
Review Report of
Topographic Map Manuscript T-8763

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

26. Control

Triangulation station Stone, 1896 has been shown on the map manuscript. Though it has not been recovered since its establishment, its existence is not in doubt.

43. Comparison with Previous Surveys.

T-150	1:20,000	1842
T-1548a	1:20,000	1883
T-3087	1:20,000	1910

Numerous changes in shoreline and cultural features have occurred since the above surveys were made. These surveys are superseded by the map manuscript in all common areas.

44. Comparison with Existing Topographic Surveys.

Vineland, Del-N.J., U.S.G.S., 1:125,000, 1886-96
Bowers, Del-N.J., U.S.G.S., 1:62,500, 1926, 1933-34.

Refer to item 44 of Compilation Report.

45. Comparison with Nautical Charts.

Chart No. 1218, 1:80,000, 12-8-47.

Refer to item 45 of Compilation Report.

48. Vertical Accuracy Test.

A vertical accuracy test was run for the adjacent quadrangles T-8764 and T-8762. On the basis of those tests this map complies with the national standard map accuracy requirements.

Reviewed by:

K. N. Maki

K. N. Maki 3-16-48
Photogrammetrist

Reviewed under direction of:

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

APPROVED BY:

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

[Signature]
Chief, Nautical Chart Br.
Division of Charts

K. T. Adams
Chief, Div. of Photogrammetry

[Signature]
Chief, Div. of Coastal Surveys

GEOGRAPHIC NAMES

- BENNETTS PIER ✓
- BIG STONE BEACH ✓
- BROCKONBRIDGE GUT ✓
- CLARK POINT ✓
- MILFORD NECK ✓
- SANDY POINT ✓

- Delaware ✓
- Delaware Bay ✓
- Kent County ✓
- District No. 10 ✓

Names preceded by • are
approved. 3/11/48
L.H.

NOTES
for
HYDROGRAPHIC PARTIES

DELAWARE RIVER

MAP MANUSCRIPT, SURVEY NO. T-8763

Project No. PH-7(46)A

The 2½ millimeter circles, accompanied with a name and date, are the positions of the recoverable photo (topographic) stations. The hydrographic signal sites are indicated by a dot with the descriptions lettered on the manuscript.

T-8763 has been compared with United States Coast and Geodetic Survey nautical chart No. 1218, published January 1942 (8th edition)(first edition 1913) corrected to 13 July 1946, scale 1:80,000.

The following topographic information shown on T-8763 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 not shown. They will be investigated by the hydrographic party.

Respectrully submitted
18 June 1947

Mildred M. Shurtman
Photogrammetric Aid

Approved and forwarded

9 July 1947

Thos B. Baird

Officer in Charge

Baltimore Photogrammetric Office