

8504

Diag'd. on diag. ch. No. 1219

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Air Photo. Compilation

Field No. _____ Office No. T-8504

Hariz. Acc'y Test.

LOCALITY

State Delaware

General locality Atlantic Coast

Locality Bethany Beach

194 3

CHIEF OF PARTY

Lieut. Comdr. K. G. Crosby

Lieut. Comdr. F. L. Gallen

Comdr. Ray L. Scheppe

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February 3, 1948

DATE of Photos April 4, 1943

8504

DATA RECORD

T- 8504

Quadrangle (II): Bethany Beach

Project No. (II): CS-302-B

Field Office:

Chief of Party: F. L. Gallen

Compilation Office: Tampa, Florida

Chief of Party: K. G. Crosby

Instructions dated (II III): 3/18/43

July 23, 1942

Jan. 12, 1942

Copy filed in Descriptive
Report No. T- (VI)
Div. Photogram Office Files

Completed survey received in office: 27 Sept. 1943

Reported to Nautical Chart Section:

Reviewed: 18 Jan. 1944

Applied to chart No.

Date:

Redrafting Completed: 15 Feb. 1944

Registered: 29 Jan. 1948

Published: 1944

Compilation Scale: 1:20,000

Published Scale: 1:25000

Scale Factor (III): 1.00

Geographic Datum (III): N.A. 1927

Datum Plane (III): M.S.L. 1929

Reference Station (III): Bethany Beach Life Saving Station, 1909

Lat.: 38°32'45"476(1402.3m) Long.: 75°03'23"084(559.0m) Adjusted
xUnadjusted

State Plane Coordinates (VI):

X =

Y =

Military Grid Zone (VI) "A"

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
13327	4/4/43	12:51 EWT	1/20,000	0.7 above M.L.W
13328	4/4/43	12:54 "	1/20,000	0.7 " "
13329	4/4/43	12:56 "	1/20,000	0.7 " "

No record in Tampa Office of date and times of photographs
*Tide range in Indian River Bay is only 0.2 of the range at the
 Reference station, while the Ocean Shore line has a tide
 range of 0.9 that of the Reference Station.*

Tide from (III): Reference station SANDY HOOK corrected to REHOBOTH

Mean Range: 4.0'

Spring Range: 4.8'

Camera: (Kind or source) USC&GS 9 lens

Field Inspection by: O. N. Dalbey, Photo. Aid date:

Field Edit by: W. Bever date: December, 1943

Date of Mean High-Water Line Location (III):

Projection and Grids ruled by (III) J.C.O'N. & B.R.C. date: June 4, 1943

" " " checked by: " " date: "

Control plotted by: Washington Office date:

Control checked by: " " date:

Radial Plot by: Washington Office date:

Detailed by: E.A. Norrell, Jr. Engr. Draftsman date: July-Aug. 1943

Reviewed in compilation office by: J.A. Giles, Asst. Photo. Engr. date: Sept. 1943
 J.E.S. Billmyer, Asst. Photo. Engr.

Elevations on Field Edit Sheet W. Bever date: December, 1943
 checked by:

STATISTICS (III)

Land Area (Sq. Statute Miles); 23.6

Shoreline (More than 200 meters to opposite shore); 25.9

Shoreline (Less than 200 meters to opposite shore); 17.3

Number of Recoverable Topographic Stations established; None

Number of Temporary ~~Hydrographic~~ Topographic Stations located by radial plot; 2

Leveling (to control contours) - 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;

General Procedure in the Production of Topographic Quadrangles for the War Department

- This quadrangle, together with similar adjoining maps produced under Project C.S. 302, was prepared by the Coast and Geodetic Survey for the War Department under "General Specifications for War Department Mapping Program" issued about December 1941, in which is incorporated the "Standard of Accuracy for a National Map Production Program" issued by the Bureau of the Budget under date of June 10, 1941.

The general procedure in the production of this and the adjoining quadrangles was:

FIELD SURVEYS

Aerial photography with the Coast and Geodetic Survey nine-lens camera, with airplane and flight crew furnished by the U. S. Coast Guard. The photographs were taken to the scale of 1:20,000. 1943

Ground inspection of the photographs for identification of control points, and classification and clarification of planimetric details on the photographs.

Contouring by planetable directly on the photographs. Supplementary vertical control was established by means of an extensive subordinate level net, furnishing unmarked elevations at road intersections, driveways, and numerous other points identifiable on the photographs.

COMPILATION OF MANUSCRIPT

Compilation on the map manuscripts by radial plot methods (celluloid hand templates) of all planimetry and contours. These manuscripts were drawn on the scale of 1:20,000 on celluloid sheets on which polyconic projections had been ruled with the Projection Ruling Machine in the Washington Office. Compilation was accomplished in the Baltimore Tampa Photogrammetric Office.

FIELD EDIT

Comparison of a copy of the manuscript with the ground. This included inspection for completeness and accuracy as well as the location by planetable methods of additional details, checking of nautical and aeronautical aids to navigation, etc.

Accuracy Tests - Application of systematic horizontal and vertical accuracy tests to check the maps for conformity with the specifications. These tests consisted of comparison of the map position and elevation of selected random points with the true position and elevation as independently determined by standard survey methods.

PROCESSING IN THE WASHINGTON OFFICE

Review - Examination of the manuscript for accuracy and completeness of compilation and compliance with specifications, correcting where necessary; addition of military and state grids and other special features; and verification of the general adequacy of the manuscript as a basis for the production of a finished map.

Drafting and Reproduction - Preparation of smooth color separation drawings on 1:20,000 scale on metal-mounted "blue-line" copies of the manuscript. From these drawings, negatives and printing plates were prepared for reproduction of the finished map on the scale of 1:31,680 or 1:25,000.

FIELD INSPECTION REPORT
QUADRANGLE T-8504
Project CS-302-B
F. L. Gallen, Chief of Party

1. DESCRIPTION OF AREA:

This quadrangle, which lies entirely in Sussex County, Delaware, consists of beach and sand dunes formed by the Atlantic Ocean and marsh along the Indian River Bay and Assawoman Bay on the east, with well developed farms and timberland on the west. Elevations range from sea level on the east to about 31 feet along the sand dunes. Elevations to the west of the sand dunes range from about 6 feet to 20 feet. The farm land is very flat and is drained by numerous ditches. The area south of Bethany Beach is largely marsh, while the area around Millville and Ocean View is mainly well developed farms. The farm and timberland have a light sandy soil and is well drained by numerous streams and ditches which drain into the Indian River Bay and Assawoman Bay. A canal connects Indian River Bay and Assawoman Bay which is navigable for small boats. There are two main highways in this quadrangle, Delaware State Highway No. 14 along the Atlantic Ocean and Delaware State Highway No. 26 from the town of Bethany Beach west through the towns of Ocean View and Millville. There are many all weather county roads throughout the quadrangle which may be traveled in all types of weather. The timberland over this survey consists of pine, cedar and deciduous trees which have a heavy undergrowth of brush. Three small towns are within the limits of this quadrangle; Bethany Beach, which is a summer resort on the ocean, Ocean View and Millville, which are west of Bethany Beach on Delaware State Highway No. 26.

2. COMPLETENESS OF FIELD INSPECTION:

The field inspection is thought to be complete except in the southwest portion of the survey where there is a secret military installation which was requested by the commanding officer to be omitted from the finished map. All buildings, churches, cemeteries, trees and roads have been classified. Only the buildings circled are to be shown on the map drawing. All buildings circled and not labeled are to be classified as dwellings. Trails which were not clear on the photographs are shown with a dashed red line. The marsh areas have been designated and enclosed with a dashed blue line. There are two main highways which have been labeled on this survey; Delaware State Highways No. ~~17~~¹⁴ and No. 26. It is believed that all necessary information is shown on the field photographs that should be shown on the map drawing. Classification of bridges and culverts which have been designated on the photos or any other small items erroneously omitted will be noted by the field edit party.

3. INTERPRETATION OF THE PHOTOGRAPHS:

See report for T-8498.

Hwy 17 falls on Frankford Quad (T-8503), west of T-8504

4. HORIZONTAL CONTROL:

See report for T-8498

5. VERTICAL CONTROL:

There are no first order bench marks in this quadrangle. A third order bench mark was established by this party and pricked on photograph 13327. The mark is located in the abutment of the bridge over White Creek in Millville. Supplementary level lines were run over the main roads in this quadrangle to provide sufficient control for the planetable party. The level elevations are shown in black, while planetable elevations are shown in brown. These level lines were run and adjusted by a separate party and were assumed correct as submitted by them, except where elevations were found in error when a tie was made by a planetable party through intermediate lines. Elevations found in error were corrected. All elevations run by the level party are shown in the centerline of the road unless otherwise noted on the photo and may be used on the finished map drawing as ground elevations. Closures over .35 foot were adjusted and over 1.0 foot reran. Very few lines had to be adjusted, as many closures were of such an accuracy that they needed no adjustment.

BH 28-3 (USED)
BH 4 (CRGS)
Recovered
in 1955,
Aug 10, as
"a standard
tablet in
bridge."

6. CONTOURS AND DRAINAGE:

See report for T-8498.

7-13. The items under these headings in the field inspection report do not apply to this area.

14-18. See report for T-8498.

19. JUNCTIONS:

Junctions with T-8502 on the north and T-8503 on the west have been made and are in agreement. This survey joins T-8100 in Project 278.

20. PHOTOS

Photos. used in surveying this area are 13327, 13329, and 13338.

Approved & forwarded

F. L. Gallen

Chief of Party

Submitted by

Orvis N. Dalbey
Orvis N. Dalbey

Photo Aid

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Army Camp at Bethany, Beach, Del.

This was formerly a National Guard camp and is now being used by a detachment of troops engaged in coast defense work. According to information obtained at Fort Miles this camp should be shown in its entirety. No maps showing the boundary of the camp are available and the boundary should be located on the photograph and the name obtained at the same time.

CONTROL PROJECT 302B
QUADRANGLE T-8504

STATION	CLASS	PHOTO NO.	DATE	INITIAL
HORIZONTAL CONTROL:-----				
✓ Massey, 1909	R-M	13337	5/15/43	L.G.C.
✓ Burtons Id., 1909	R-M	13330	5/6/43	L.G.C.
✓ White House, S. Cable	R-M	13337	5/8/43	L.G.C.
✓ River, 1934	R-M	13337	5/13/43	L.G.C.
✓ Indian, 1934	R-A	13328	4/28/43	L.G.C.
Quillian Pt. Flagpole, 1934	R-A	13328	4/28/43	L.G.C.
✓ Cotton Patch, 1909, 20, 32	R-M	13328	5/7/43	L.G.C.
✓ Bethel Ch. Spire, 1909	R-A	8737	4/27/43	L.G.C.
✓ Bethany Beach Life Saving Station, 1909	R-A	8767	4/27/43	L.G.C.
✓ Adse's Red-roofed House Chimney, 1909	R-A	8767	4/27/43	L.G.C.
✓ Auditorium, Center of Building, 1909	R-A	8767	4/27/43	L.G.C.
✓ North, 1929	R-A	8767	4/27/43	L.G.C.
✓ Tunnel 2, 1909	R-A	8767	4/27/43	L.G.C.
Chimney Cent. N'yly				
✓ No. Burtons Id., 1934	R-M	13330	5/8/43	L.G.C.
Hotel Tower, (USCA) 1943	R-M	8767	5/8/43	L.G.C.
White Chimney (USED)	R-M	-----	5/8/43	L.G.C.
White Shack on Beach, Center	D-M	-----	5/8/43	L.G.C.
✓ Hotel Tower, 1909	D-M	-----	4/29/43	L.G.C.
B.C. (USED)	D-A	-----	4/27/43	L.G.C.

VERTICAL CONTROL:-----

✓ 28-3 (USED) 1929	R-A	-----	4/28/43	L.G.C.
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A B.M. was set by this party at Millville. Photo. 13327 = B44
*Letter after the class designation indicates the month.

Lieut. Comdr. F. L. Gallen
Chief of Party

Joe M. Henningsen, Prin. Photo. Aid,
In charge sub-party

✓ Indian River Coast Guard Tower (USCA) 1943

ABBREVIATIONS

ROADS

W	—	Width (feet bet. shoulders)
P	—	Private road
OP	—	Overpass
UP	—	Underpass
X	—	Abandoned trail, road, etc.
RR	—	Railroad tracks; as 2 tracks

WOODS-CLASSIFICATION

Density-Classification

1	—	Scattered
2	—	Thinly wooded
3	—	Heavily-wooded
4	—	Densely wooded

Types of woods

D	—	Deciduous
P	—	Evergreen-and-pine
R	—	Brush
S	—	Scrub
Y	—	Cypress
L	—	Young trees (LP—young pines LD—young deciduous trees)

SHORE LINE

HWL	—	Mean high water; fast land
LWL	—	Low water line
LL	—	Light line; marsh shore line
M	—	Marsh inshore limits
MW	—	Marsh grass in water
Dk	—	Dock
Pier	—	Pier
Se W	—	Sea wall
Bkhd	—	Bulkhead
Jet	—	Jetty
Dol	—	Dolphin
Pile	—	Pile
S	—	Sand
Mud	—	Mud
Rk	—	Rock or rocky
Sty	—	Stony
Conc	—	Concrete
Wo	—	Wood
Blf	—	Bluff
Dune	—	Dune

BOUNDARIES

F	—	Fence
Sty F	—	Stone fence
F B	—	Fire Break
Hdg	—	Hedge
Park	—	Park
Cem	—	Cemetery
Co	—	County
Md.	—	Maryland
Va.	—	Virginia
Bdy	—	Boundary

VEGETATION

C	—	Cultivation
Gr	—	Grass

BUILDINGS

Ho	—	House
Ba	—	Barn
Sh	—	Shed
Bldg	—	Building
Bo Ho	—	Boat House
Ch	—	Church (give name)
Ct Ho	—	Court House (give name)
P O	—	Post Office (give name)
Sch	—	School (give name)
Hos	—	Hospital (give name)
RR Sta	—	Railroad station
Sto	—	Country store or gas sta.
P Sta	—	Power Station
Ck H	—	Chicken House
D	—	Dwelling

LANDMARKS

FT	—	Fire tower
TT	—	Transmission tower
RT	—	Radio Tower or mast
Air Bn	—	Airway beacon
Bn	—	Non-lighted aid to navigation
Lt	—	Lighted aid to navigation
Tk	—	Low tank
Tk elev	—	Tall tank
Stk	—	Stack

STREAMS, PONDS & BRIDGES

D	—	Largest ditches only
DX	—	Small
IS	—	Intermittent stream
PD	—	Probable drainage
Cr	—	Creek
Ca	—	Canal
Brg	—	Bridge, (capacity & clearance)
Cv	—	Culvert (capacity)
Lev	—	Levee
Dam	—	Dam
P	—	Pond
IP	—	Intermittent pond

TREES AND BRUSH

TYPE

D	Deciduous
E	Evergreen
Gy	Gypross

CONCEALMENT

Z	Trees 10 feet or more in height, and thick enough when in foliage to conceal troop and vehicles.
Y	Brush and undergrowth thick enough to impede foot troops and conceal troops lying down.
X	Scattered trees not thick enough to conceal troops.
W	Scattered brush not thick enough to conceal troops.

PHYSICAL FEATURES

H	Higher ground - usually appears in light tone on photograph; either wooded or cultivated area; may be scrub trees or brush. (usually not symbolised on photographs.)
LG	Low areas - generally appears dark on photograph; becomes swampy during rainy season; often covered with dense growth of brush.
SW	Swamp - ground covered with water or heavy mat of the same; lower in elevation than LG; wooded and/or brush.
M	Salt marches

NOTE: The above areas are not outlined but sufficient notes are made on each photograph so that the variations in terrain can be correctly interpreted in the office.

BRIDGE AND TUNNEL CLASSIFICATION

<u>First Symbol</u>	<u>One Lane</u>	<u>Unlimited</u>
<u>Capacity</u>	5 m.p.h.	
A	50 tons	25 tons
B	25 tons	13 tons
C	18 tons	13 tons
D	10 tons	7 tons
E	8 tons	4 tons
F	Light vehicles only	

Second Symbol

<u>Vertical Clearance</u>	A - over 14 feet
	B - over 13 feet
	C - over 12 feet
	D - over 11 feet, etc.

Third Symbol

<u>Horizontal Clearance</u>	A - over 18 feet
	B - over 17 feet
	C - over 16 feet
	D - over 15 feet, etc.

Fourth Symbol - Year of Classification

ROAD CLASSIFICATION FOR MAPS OF ALL SCALES

CLASS	LABEL	STRUCTURE	LOADING
1	Dependable hard-surface heavy duty road.	Concrete, asphaltic concrete bituminous Macadam, H-15 type structures.	Will bear heaviest loads with little maintenance.
2	Secondary, hard-surface all-weather road.	Surface-treated, oiled gravel, waterbound Macadam, structures generally lighter than H-15 but sturdy.	Will bear fairly heavy military loads in all weather if maintained.
3	Loose-surface graded, dry-weather road.	Gravel or stone surface, stable material, selected sand-clay, etc. Drained and graded.	Will bear light military loads in good weather.
4	Unimproved road.	Graded and drained earth, with very light structure.	Generally unsuitable for military loads.
4U	Truck road	Woods roads, farm roads, etc. over which a standard gage vehicle can be driven.	
5	Trail	(Horse trails, foot trails, etc.)	

Roads with more than two (2) lanes are indicated by note along road, e. g. 3 LANE. Change in lanes shown by tick at point of change. Main roads have two lanes unless otherwise marked.

Private roads are designated by the letter P after the road classification.

WOODS' CONCEALMENT CLASSIFICATION

Class-A:—Trees over 10' high and thick enough to hide troops.

Class-B:—Brush thick enough to hide troops but dense enough to impede progress.

Class C: Scattered brush thick enough to hide troops but not thick enough to impede progress.

COMPILATION REPORT
TO ACCOMPANY
SHEET NO. T-8504

26. CONTROL

The triangulation control on this sheet was sufficient for an accurate plot and all stations could be held.

(14 stations. See appended list)

27. RADIAL PLOT

The main radial plot was run by personnel of the Washington Office and a report submitted by them is incorporated in the compilation report for sheet T-8502.

28. DETAILING

The photographs used were very clear and of good scale. The field inspection was sufficient and the compiler had no trouble in the interpretation and experienced no difficulty in detailing from the information given.

What are obviously ditches are shown on the field print with the intermittent stream symbol. This drainage should be investigated by the field edit party and corrected on the map manuscript sheet where necessary.

*See No. 6 in
Descript. Report*

A small structure along the shore line at Lat. $38^{\circ} 37.3'$, Long. $75^{\circ} 06.7'$ shows on the photograph. As no notes were made by the field inspector as to what it is, it should also be investigated in the field.

Slight discrepancies between the Atlantic coast line and the south bank of Miller Creek on the junction with T-8100 on the south. It is thought that these shorelines are shown correctly on T-8504.

29. SUPPLEMENTAL DATA

No graphic control surveys by this Bureau or maps and plans of other organizations were used to supplement the photographs in the detailing.

34. LANDMARKS AND AIDS TO NAVIGATION

⁴
~~Two~~ topographic stations, "Indian River North Power Tower" and "Indian River South Power Tower", were "cut in" by the radial plot and are shown on the sheet. These two towers should be inspected by the field edit party, and if suitable for landmarks, a Form 567 should be submitted to the Washington Office. *(See also paragraph 11, Descriptive Report)*
+ Water Tank & Radio Direction Finder Sta. field edit

44. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES

In comparing the sheet with USGS Rehoboth Quadrangle (Edition of 1928 on a scale of 1:62,500), several major

changes were noted in addition to numerous smaller ones.

Indian River Inlet is now located about $1\frac{3}{4}$ miles South of the position shown on the quadrangle.

Fresh Pond is much smaller than it formerly was.

The entrance to Old Basin Cove is almost closed by two marsh islands which do not appear on the older map.

Bridge Gut which formerly separated Burtons Island into two parts cannot be seen on the present photographs.

45. COMPARISON WITH NAUTICAL CHARTS

An accurate comparison with USC&GS Chart 1219, published February 1931 on a scale of 1:80,000, could not be made due to the large scale differences.

Respectfully submitted,

Emma A. Worrell

Emma A. Worrell
Jr. Engineering Draftsman

Forwarded by:

Kenneth G. Crosby
Kenneth G. Crosby,
Chief of Party....

Field Edit Report.

DESCRIPTIVE REPORT TO ACCOMPANY

QUADRANGLE T-8504

PROJECT CS 302 B

Ray L. Schoppe, Comdr., Chief of Party

1. Description of the Area. Refer to field inspection report.
2. Completeness of Field Inspection. Refer to field inspection report.
3. Interpretation of the Photographs. Field photographs were not used by the field edit party except in checking level elevations.
4. Horizontal Control. Refer to field inspection report.
5. Vertical Control. Refer to field inspection report.
6. Contours and Drainage. Along the Atlantic seacoast, numerous closed 20-foot contours are shown. These contours show isolated sand dunes which are unstable vertically and horizontally. It has been previous practice to show these dunes by spotting elevations on the more prominent and permanent dunes. This party recommends that this practice be continued, in order that a consistency of pattern will exist with previously mapped areas. The elevations to be shown may be selected at the discretion of the compilation office.

Drainage features were checked and found to be complete except for two intermittent ponds in the vicinity of latitude $38^{\circ}33'$ and longitude $75^{\circ}07'$. Attention was called in the compilation report, item 28, to incorrect drainage features shown on the compilation. These features have been investigated and corrected on the compilation.
7. Mean High-Water Line. Although the mean high-water line was not checked closely, the field edit party was on the alert for discrepancies. None were found.
8. Low-Water Line. Refer to compilation report, item 28.
9. Wharves and Shoreline Structures. The wharves and shoreline structures as shown on the compilation are complete and adequate.
10. Details Offshore from the High-Water Line. Other than fish weirs there were no offshore details within the limits of this quadrangle.

DESCRIPTIVE REPORT TO ACCOMPANY
 QUADRANGLE T-8804
 PROJECT OS 302 B
 Ray L. Seay, Captain, Chief of Party

1. Description of the Area. Refer to field inspection report.
2. Completeness of field inspection. Refer to field inspection report.
3. Interpretation of the photographs. Field photographs were not used by the field party except in checking level elevations.
4. Horizontal Control. Refer to field inspection report.
5. Vertical Control. Refer to field inspection report.
6. Contours and Drainage. Along the Atlantic seaboard, numerous closed 30-foot contours are shown. These contours show isolated sand dunes which are unstable vertically and horizontally. It has been previous practice to show these dunes by spotting elevations on the more prominent and permanent dunes. This party recommends that this practice be continued, in order that a consistency of pattern will exist with previously mapped areas. The elevations to be shown may be selected at the discretion of the compilation office.
7. Mean High-Water Line. Although the mean high-water line was not checked closely, the field party was on the alert for discrepancies. None were found.
8. Low-Water Line. Refer to compilation report, item 88.
9. Wharves and Shoreline Structures. The wharves and shoreline structures as shown on the compilation are complete and adequate.
10. Details Offshore from the High-Water Line. Other than fish weirs there were no offshore details within the limits of this quadrangle.

A "correction copy" of T-8100 has had the change of name placed on the margin as "revision data", and the information source noted.
 L.T.S. 28 Jan 1948

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11. Landmarks and Aids to Navigation. Four landmarks and one aid to navigation have been submitted on form 567 for charting. *(See also paragraph 34 of Compilation Report)*

12. Hydrographic Control. Refer to compilation report, item 35.

13. Landing Fields and Aeronautical Aids. There were no landing fields or aeronautical aids within the limits of this quadrangle.

14. Road Classification. All roads have been classified and shown in accordance with instructions from the Army War College, dated Jan. 12, 1942.

15. Bridges. Bridge classifications were made in accordance with instructions from the war department, dated July 23, 1942, and have been shown in key on the sheet by C. C. Fryer, Junior Topographic Engineer.

16. Buildings and Structures. All farm buildings except dwellings and chicken houses have been classified as barns (b). This includes all substantial sheds, large garages, and so forth. Because of the large number of chicken houses, they were classified (ckh), and as they are for the most part temporary structures, many were marked for deletion. In congested areas and towns, dwellings were not classified. Public buildings were classified according to standard topographic practice.

17. Boundary Monuments and Lines. The boundaries of political subdivisions of Sussex county have been added by the field edit party. Other boundary lines, added by the field inspection party, were checked by the field edit party.

18. Geographic Names. Refer to field inspection report. *LA*

19. A disagreement was found between the junction of this quadrangle and that of the newly published quadrangle to the south, "Assawoman Bay", T-8100. The boundary and name of the Soil Conservation Service Assawoman Bay Site No. 8 is shown incorrectly on the newly published quadrangle. The correct name Soil Conservation Service Assawoman Bay Site No. 8 (not Delaware State Game Refuge) and boundary are shown on quadrangle Assawoman Bay Maryland-Delaware, (1:50,000) T-8100, which is submitted with this sheet.

20. Discrepancies noted in the compilation report, item

28, have been investigated, corrected, and noted on the compilation.

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46. This quadrangle was field edited on the compilation. Discrepancies not covered by suitable symbols were noted on the compilation by a sentence and arrow to the point in question.

All symbols used during field edit are standard topographic symbols except that a green "X" was used to show deletions and a tick mark was used to show limits of deletion and points of change in road classifications. The following color scheme was used:

Deletions	green
Additions, classifications, names, bench marks, level elevations	black
Water culture	blue
Political boundaries	violet

47. Adequacy of the Compilation. The compilation of this sheet was complete and adequate except for known deficiencies, such as boundaries, additions, and classification of buildings, bridges, and roads.

48. Accuracy Tests. A separate report of the horizontal accuracy test is included with this descriptive report. *Attached hereto.*

For the vertical accuracy test report refer to the field inspection report, item 6.

See inspection report for T-8498, item 5

Submitted by:

Wendell Bever

Wendell Bever
Junior Topographic Engineer
December 7, 1943

Approved:

Ray L. Schöppe
Ray L. Schöppe
Chief of Party

HORIZONTAL ACCURACY TEST

PROJECT CS 302 B - Traverse Line No. 2

Quadrangle T-8504

HORIZONTAL ACCURACY TEST
PROJECT CS 302 B - Traverse Line No. 2
Quadrangle T-8504

This test consists of a traverse between triangulation station Indian (1934) and North (1929). The traverse is 9.0 statute miles in length and the closing error is 1.83 meters or one part in 7,890. The closing error was adjusted through the traverse. This traverse contains 23 test points, 12 of which are within the limits of this quadrangle. In the tabulation the geodetic position from the traverse computations is referred to as T. No. and the scaled position from the map manuscript is referred to as M. No.

Tabulation of Test Points

Description of point	Test Point No.	Latitude	Longitude	Difference in mm.
Inter. of road and road, 45 degrees	T. No. 1	38-34-1804.3	75-07-546.9	.586
	M. No. 1	38-34-1801.2	75-07-558.2	
<i>See report (Review)</i>				
Inter. of road and road, 60 degrees	T. No. 12	38-32-1806.9	75-07-606.3	.758
Center of Intersection	M. No. 12	38-32-1800.2	75-07-619.9	
	T. No. 13	38-32-1608.9	75-07-34.6	
Northeast corner of building	T. No. 14	38-32-1544.9	75-06-927.2	.324
	M. No. 14	38-32-1540.8	75-06-932.2	
<i>See Test Traverse for T-8503</i>				
Inter. of road and road, 30 degrees	T. No. 15	38-32-1505.2	75-06-612.1	.210
	M. No. 15	38-32-1501.0	75-06-612.4	
Intersection of crossroads	T. No. 16	38-32-1257.5	75-05-966.8	.091
	M. No. 16	38-32-1255.7	75-05-966.6	
Intersection of crossroads	T. No. 17	38-32-1165.2	75-05-540.6	.277
	M. No. 17	38-32-1159.7	75-05-541.2	
Southeast corner of store	T. No. 18	38-32-1109.8	75-05-145.4	.366
	M. No. 18	38-32-1111.4	75-05-152.0	
Center of bridge over canal	T. No. 19	38-32-1013.9	75-04-1257.4	.147
	M. No. 19	38-32-1014.6	75-04-1254.6	
Inter. of road and drive, 85 degrees	T. No. 20	38-32-804.2	75-04-555.2	.072
	M. No. 20	38-32-802.9	75-04-555.8	
Inter. of road and road, 90 degrees	T. No. 21	38-32-555.8	75-03-1046.5	.115
	M. No. 21	38-32-553.5	75-03-1046.4	
Inter. of road and road, 90 degrees	T. No. 22	38-32-531.5	75-03-659.8	.309
	M. No. 22	38-32-536.3	75-03-655.9	
Inter. of road and road, 90 degrees	T. No. 23	38-31-1518.5	75-03-600.8	.365
	M. No. 23	38-31-1525.0	75-03-597.5	

Except for test points No. 14 and No. 18, which are less well defined, the points are well defined. It may be noted that test points No. 1 and No. 12 are in excess of .5 mm. The horizontal accuracy of this map is not within the requirements of the instructions by about 7%.

Submitted by:

Charles Hanavich
Charles Hanavich
Prin. Photo. Aid

Approved:

Ray L. Schoppe
Ray L. Schoppe
Chief of Party

RECORDS

Between January, 1942 and July, 1944, this Bureau completed 323 quadrangles. These maps have been published, or are in the process of being published on scales of 1:31,680 or 1:25,000. This series of quadrangles includes a land area of approximately 15,000 square miles. Incident to this work, a considerable volume of survey records and data has accumulated which will be filed for future reference. This material is filed as follows:

Registered and Filed in the Vault.

Cloth-mounted copy of the published quadrangle.

Black and white cloth-mounted copy of the published quadrangle at 1:20,000 scale. This copy is filed to preserve original survey detail shown on the manuscript at 1:20,000 scale which may not have been shown on the published sheet. For woodland, refer to the published quadrangle for the finally adopted outlines.

Descriptive Report.

Filed in the Photogrammetric Division.

Field inspection photographs.

Contoured photographs (on which planetable contouring work was performed.)

Field edit sheet.

Descriptions of recoverable topographic stations (Form 524), filed in Review Section.

Supplementary traverse and level records.

Field notes, computations, lists of positions, and tabulations of results of horizontal and vertical accuracy tests.

Reproduction proof.

Correction sheet (copy of quadrangle showing in red changes to be made when next printed.)

Check lists of work performed on each sheet in the Washington Office during review, drafting, edit, and reproduction.

Copies of specifications and all instructions to field parties and field offices.

Filed in Reproduction Branch.

Glass negatives of the color separation drawings.

Filed in the Library.

Special report on office work by B. G. Jones, 1944.

Season's report on field work by Commander F. L. Gallen, 1944.

Season's report on field work by Commander R. L. Schoppe, 1944.

Delivered to the Army Map Service in accordance with the contract.

Film negatives and film positives of the color separation drawings.

All color separation drawings.

A correction sheet consisting of a copy of the first edition of the quadrangle with notes in red indicating changes desirable at the next printing.

John T. Stevens in Jan 1945
Written by LTS from notes on
"Review, Editing, & Drafting"
form ~~made~~ made at time of Review.

REVIEW REPORT
Quadrangle T-8504
BETHANY BEACH, DELAWARE
1944

Subjects not used in this review report have been covered in other parts of the Descriptive Report, or do not apply.

44. COMPARISON WITH EXISTING TOPOGRAPHIC SURVEYS

T-226	1/20000	1845	T-4467	1/20000	1929
T-299	1/20000	1850			

Marked changes in inland detail; slight changes in shoreline; and Indian River Inlet 0.3 mi. south of position shown on T-226.

U.S.G.S. REHOBOTH 15' 1/62500 1928

See compilation report, item 44.

Survey T-8504 supersedes the above-named surveys.

45. COMPARISON WITH NAUTICAL CHARTS

1219 1/80000 1939

A light appearing on the chart is not on the manuscript. It cannot be seen on the photograph, nor has it been investigated by the Field Edit Party.

Four landmarks and one aid are recommended for charting.

This survey has not been applied to nautical charts as of the date of this review.

46. HORIZONTAL ACCURACY TEST

Points 1 and 12 of the horizontal accuracy test fail to meet the 0.5mm position-accuracy requirement. They are oblique intersections of wide roads. Since a check of the radial plot corroborates the original positions, it is assumed that slight discrepancies in identification exist.

Reviewed by

Under direction of

Willis W. St John
18 Jan. 1944

Ralph Moore Berry
Ralph Moore Berry
Chief, Review Section

APPROVED BY:

B.G. Jones 1/48
Technical Assistant to the
Chief, Div. of Photogrammetry

J. Rittenburg
Chief, Nautical Chart Branch
Division of Charts

K.T. Adams
Chief, Div. of Photogrammetry

C.H. Green
Chief, Div. of Coastal Surveys

~~The latest hydrographic survey was H-4942, 1/20000, 1929, and none have been made since review and publication of T-8504.~~

L.T. Stevens
29 Jan. 1948

T-8504

1

Remarks

Decisions

1		
2		Road Maps
3		
4		
5		
6		
7		385750
8		"
9		"
10		"
11		"
12		"
13		"
14		"
15		"
16	Apparently name should apply on quad. to south.	"
17		"
18		"
19		"
20		"
21		"
22		"
23		"
24		"
25		"
26		"
27		"

GEOGRAPHIC NAMES

Survey No. T-8504

BETHANY BEACH quadrangle

1	Name on Survey	A.	B.	C.	D	E	F	G	H	K	
✓	Sussex County	✓									1
	State Roads 14, 26	✓									2
✓	District 8 (Indian River)										3
✓	District 7 (Baltimore)										4
✓	District 10 (Leves and Rehoboth)										5
											6
	Bethany Beach		✓								7
✓	Bethany Beach Coast Guard Sta.		✓								8
✓	Miller Creek	✓									9
✓	Lynch Marsh	✓									10
✓	Ready Point	✓									11
✓	Middle Point	✓									12
✓	Goose Point	✓									13
✓	Strawberry Landing	✓									14
✓	Skid Point	✓									15
✓	Sassafras Point										16
✓	Brickbat Point	✓									17
✓	Murray Point	✓									18
✓	Sheep Hammock	✓									19
✓	Rickards Creek	✓									20
✓	Daisys Goose Pond	✓									21
✓	Branch Gut	✓									22
✓	Cedar Pond	✓									23
✓	Cat Hills Marsh	✓									24
✓	Cat Hills	✓									25
✓	Assawoman Canal	✓									26
✓	Jefferson Bridge	✓									27

M 234

T-8504

2

Remarks

Decisions

1		385750
2		"
3		"
4		"
5		"
6		"
7		"
8		"
9		"
10		"
11		"
12		"
13		"
14		"
15		"
16		"
17		"
18		"
19		"
20		"
21		"
22		"
23		"
24		"
25		"
26		386750
27		"

GEOGRAPHIC NAMES

Survey No. T-8504

GEOGRAPHIC NAMES											
Survey No. T-8504											
Name on Survey		A.	B.	C.	D.	E.	F.	G.	H.	K.	
✓	Muddy Neck	✓									1
✓	Muddy Neck Road	✓									2
✓	Bethany Beach Canal	✓									3
✓	Bethany Beach Army Camp	U.S. Army Camp									4
✓	Salt Pond	✓									5
✓	Fresh Pond	✓									6
✓	Ocean View	✓									7
✓	Cedar Neck	✓									8
✓	Stony Run	✓									9
✓	Club House Landing	✓									10
✓	Pingally Point	✓									11
✓	Spring Gut	✓									12
✓	Derickson Point	✓									13
✓	Big Marsh Point	✓									14
✓	White Creek	✓									15
✓	Pasture Point	✓									16
✓	Pasture Point Cove	✓									17
✓	Guillens Point	✓									18
✓	Beach Cove	✓									19
✓	Old Basin Cove	✓									20
✓	Jacobs Gut	✓									21
✓	Cotton Patch Hill	✓									22
✓	Short Marsh	✓									23
✓	Short Marsh Cove	✓									24
✓	South Point										25
✓	Indian River Inlet	(at new location)									26
✓	Murray Marsh										27

M 234

Remarks

Decisions

1		386750
2		"
3		"
4		"
5		"
6		"
7		"
8		"
9		"
10		"
11		"
12	Field edit report states that Bridge Cut apparently no longer exists, so that this old name	"
13	should apparently be changed to Burton Island. If Bridge Gut is not shown, use " "	"
14		"
15		"
16		"
17		"
18		"
19	State Park on some sources <i>NOT on Compilation</i>	"
20		386751
21		"
22		"
23		"
24		"
25		"
26		" USGB
27		"

GEOGRAPHIC NAMES

Survey No. T-8504

3	Name on Survey	A.	B.	C.	D.	E.	F.	G.	H.	K.	
✓	Charles W. Cullen Bridge	✓									1
✓	Murray Marsh Cove	✓									2
✓	Bottom Hills Drain	✓									3
✓	Bottom Hills	✓									4
✓	Balders Pond	✓									5
											(Balders in names report)
✓	Old Ship Channel	✓									6
✓	Stockley Gut	✓									7
✓	Old Inlet Marsh	✓									8
✓	Green Island	✓									9
✓	Head of the Gut	✓									10
✓	Hawkins Point	✓									11
✓	Burton Island	✓									12
✓	Sawpit Cove	✓									13
✓	Little Ditch	✓									14
✓	Middle Island	✓									15
✓	Big Ditch	✓									16
✓	Lahens Point	✓									17
✓	Massey Ditch	✓									18
✓	State Lands										19
✓	Indian River Bay	✓									20
✓	Big Ditch Point	✓									21
✓	Sand Point	✓									22
✓	Steels Cove	✓									23
✓	Poplar Thicket	✓									24
✓	Boat House Pond	✓									25
✓	Long Neck	✓									26
✓	Long Neck Road	✓									27

M 234

	Remarks	Decisions
1		386751 385751
2		"
3		"
4		"
5		"
6		"
7		"
8	State Highway No. 26	"
9		"
10		385750
11		385751
12		384750
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES

Survey No. T-8504

4	Name on Survey	A. On Chart No.	B. On previous survey No.	C. On U. S. quadrangle Maps	D. From local information	E. On local Maps	F. P. O. Guide or Map	G. Rand McNally Atlas	H. U. S. Light List	K.
✓	Walters Bluff	✓								1
✓	White Neck	✓								2
	Beaston Point	✓								3
	Beaston Glade	✓								4
✓	Collins Creek	✓								5
✓	Millville	✓								6
✓	Frankford Road	✓								7
✓	Atlantic Avenue	✓								8
✓	McGhee Creek	✓								9
✓	Soil Conservation Service ^{or} Assawoman Bay Site No. 8	✓								10
✓	Double Bridges	✓								11
✓	Miller Neck	✓								12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Names underlined in red approved
by L. Heck on 2/10/44

NAUTICAL CHARTS BRANCH

SURVEY NO. T-8504

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.