8176

8176

Form 504
Rev. June 1941
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Air Photographic ~~*Planimetric*~~ ~~*Hydrographic*~~ Sheet ~~Survey~~ No. T-8176
(Field) Wescott Point

VIRGINIA
WESCOTT POINT
QUADRANGLE
N 3715 - W 7600 / 7.5

LOCALITY

State Virginia

General locality Chesapeake Bay

Locality WEscott Point

194 2

CHIEF OF PARTY

Lieut. Comdr. Kenneth G. Crosby
~~Lieut. Comdr. William D. Patterson~~

U. S. GOVERNMENT PRINTING OFFICE 315551

September 19, 1945

L 141 (1443)

141 "

~~359~~

~~64 ('44)~~ deletions

~~339~~ " "

~~352~~ approved

Title C. 12s 11 (1945)

under

321 ('44) — approved

371 " — Land

~~382~~ " Approved

397 "

928 "

453 " Land

Form T-1

DATA RECORD

T- 8176

Quadrangle (II): Wescott Point Project No. (II): CS-278-C

Field Office: Salisbury, Md. Chief of Party: F. L. Gallen

Compilation Office: Tampa, Fla. Chief of Party: Crosby, K. G.

Instructions dated (II III): 3/4/42 Copy filed in Descriptive Report No. T- (VI)

Completed survey received in office: 11/14/42

Reported to Nautical Chart Section: 11/15/42

Reviewed: 2/18/43 Applied to chart No. Date:

Redrafting Completed: 4/16/43

Registered: 9/12/45 Published: 7/15/43

Compilation Scale: 1:20,000 Published Scale: 1:25,000

Scale Factor (III): 1:00

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

Reference Station (III): ROSE, VA. 1898

Lat.: 37°19'10".393 (320.4 m) Long.: 76°01'03".053 (75.2 m) Adjusted ~~Unadjusted~~

State Plane Coordinates (VI):

Virginia System of Plane Coordinates, south zone

X = 2,721,816.54 Y = 368,554.80

Military Grid Zone (VI) 'A'

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
10A358 10A359	No data			

Tide from (III):

Mean Range: 2.3 feet Spring Range: 2.8 feet

Camera: (Kind or source) Single lens

Field Inspection by: H.Cravat, A.M. Jylha, G.L.Anderson, and A.M. Arnold date: April, May & July 1942

Field Edit by: date:

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

No data for single lens photographs given

Projection and Grids ruled by (III) Wash. Office date: 9/23/42

" " " checked by: " " date:

Control plotted by: A.L.Kidwell, Jr. Topo. Engr. date: Oct. 1942

Control checked by: V.F.Simmons, Asst. Engr. Drafts. date: " "

Radial Plot by: C.A.J. Pauw, H.G. Bortis, A.L.Kidwell
Sr. Engr. Aid Photo.Aid. Jr.Topo Engr. date: Oct.1942

Detailed by: A. L. Kidwell, Jr. Topo Engr. date: Oct. 1942

Reviewed in compilation office by: J.A. Giles
Prin. Engr. Drafts. date: Oct. 1942

Elevations on Field Edit Sheet
checked by: Wendell Bever, Photo. Aid date: Dec.1942

STATISTICS (III)

Land Area (Sq. Statute Miles): 5.45

Shoreline (More than 200 meters to opposite shore): 15.29

Shoreline (Less than 200 meters to opposite shore): 2.41

Number of Recoverable Topographic Stations established: 5

Number of Temporary Hydrographic Stations located by radial plot: 12

Leveling (to control contours) - miles: 5

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:

COMPILATION REPORT
TO ACCOMPANY
SHEET NO. T-8176

CONTROL

All of the control stations on the sheet were held to during the radial plot and checked satisfactorily. See added note, preceding page

RADIAL PLOT

A continuous radial plot was laid on October 15, 1942 to locate radial points, hydrographic and topographic stations, bench marks, and photograph centers. The plot extended over the area covered by sheets Nos. T-8176, T-8177, T-8178, T-8179, T-8180, T-8181, T-8182 and T-8183.

The usual practice of laying the main radial plot was followed. Control was plotted and checked on the base grid sheets and then transferred to the survey sheets by matching individual squares. The amount of adjustment in each grid was negligible. The grid sheets were taped to the plotting table and allowed to remain for 16 hours before any templates were laid. Prior to laying the templates, the base grid sheets were examined for movement, and readjusted where any movement had occurred.

The plot consisted of 24 templates. Template No. 8558 showed 14 triangulation stations. No. 8550 showed 11 stations, No. 8588 showed 10 stations, No. 8551 showed 9 stations, Nos. 8561, 8562, 8996 and 8995 showed 7 stations each and Nos. 8587, 8997 and 9000 showed 6 stations each. The remaining templates showed from 0 to 5 triangulation stations; three with 5 stations; three with 4 stations; two with 3 stations; two with 2 stations; one with 1 station; and one with no stations.

The templates for the north central area were laid first, because it was the most rigidly controlled and these tied in also with the previous plot. Templates were then laid to the south along the three central flight lines and finally along the coast line where there was least control.

Excessive tilt was found in three photographs (Nos. 8528, 8559, 8560), and these were omitted. Photograph No. 8589 was also omitted because it had a bad chamber. Two photographs (Nos. 8582; 9001) were left out because they were superfluous.

The control density was adequate except on the southern and northeastern sheets (T-8183 and T-8179). Throughout the area of the entire plot only about 50% of the triangulation stations were recovered in the field. This caused several places to be lacking in sufficient control.

The identification of the control was satisfactory except in a few cases where the stations were located by F.I.P. stations, for which G.P.'s were doubtful.

The photographs adequately covered the area with the exception of the northeast corner where two of the flight lines diverged considerably. In this area one single lens template was necessary to give three cut intersections.

The closure throughout the plot was poor. The southern part was especially bad and a large number of points could not be picked.

The accuracy of the entire northern edge of the plot is questionable because of the failure here to tie in exactly with the previous plot. A large part of this border is in open water and presents no serious difficulties. The accuracy of sheet T-8183 at the southern end of the plot is also questionable because of the very poor intersection obtained here. The accuracy of the remaining sheet was more satisfactory.

All points located by the radial plot were transferred and checked on the survey sheet by matching individual grid squares.

Various colored inks were used on the photographs and the survey sheet to designate triangulation stations, traverse stations, topographic and hydrographic stations, etc. The following key is furnished for reference:

Photographs

Triangulation and Traverse Stations	2.5 m.m.	blue circle
Hydrographic and Topographic stations	2.5 m.m.	green circle
Radial points in Main Plot	2.5 m.m.	red circle
Radial Points (Additional)	3.5 m.m.	red circle
Photograph centers		Double white circle

Survey Sheet

Triangulation & Traverse Stations	3.5 m.m.	high black triangle
Hydrographic & Topographic Stations	2.5 m.m.	black circle
Radial points in main plot	2.5 m.m.	purple circle on back of sheet
Radial points (Additional)	3.5 m.m.	purple circle on back of sheet
Photograph centers		Double purple circle on back of sheet

DETAILING

Practically all of the detailing was done from the three single-lens photographs 10A357, 10A358, and 10A359. The nine-lens photographs of the area were clear but the scale was poor.

The only places where the draftsman differed from the field inspection was along the shore line in a few places. Here the field inspection showed a light shore line with no marsh indicated inshore and where obviously no marsh was present. In these places the draftsman used his own judgment, assisted by the stereoscope.

On Savage Neck the field classification of vegetation differed for exactly the same areas on two field inspection sheets. The draftsman selected the ones which appeared to be the most likely.

The remainder of the field inspection was satisfactory except for the Cape Charles railroad yards which should be more fully investigated. No trouble was experienced in the interpretation of the photographs.

SUPPLEMENTAL DATA

No supplemental data was used in the compilation of the sheet, the entire detail being obtained from photographs.

LANDMARKS AND AIDS TO NAVIGATION

One landmark and ten non-floating aids have been recorded on form 567, which has been made a part of this report. Two forms 567 have been removed from report + are filed under Nautical Charts – Chart letter – 597 – 1942

7, wrong no.

Cape Charles City Harbor Northern Light is evidently triangulation station "Cape Charles Jetty Light, 1929" as the plotted position of the topographic station agrees with the triangulation position. As this light was rebuilt in 1936 the station is shown as a topographic station.

See Field Edit Report No. 4

HYDROGRAPHIC CONTROL

All recoverable hydrographic and topographic stations suitable for the control of hydrographic surveys are recorded on form 524 cards. ~~which are included in this report.~~

COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES

The manuscript was compared with the U. S. Army Engineers topographic map of the Wescott Point Quadrangle which is at the scale of 1:62,500. The only discrepancy is in the presence of sand dunes south of Wilkin Beach which are over 40 feet in elevation and do not appear on the smaller scale map.

COMPARISON WITH NAUTICAL CHARTS

This sheet and nautical chart 1222 (scale 1:80,000), published August 1, 1942, compare favorably. Any discrepancies are too slight to be distinguishable on the small scale charts compared.

Respectfully submitted,

Albert L. Kidwell

Albert L. Kidwell,
Photogrammetric Aid

Forwarded by:

Kenneth G. Crosby

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

FIELD EDIT REPORT
Quadrangle T-8176
Project CS-278-C
F. L. Gallen, Chief of Party

1. The area found within this quadrangle includes lower Savage Neck, and that land area adjacent to Cape Charles City, Va. For the greater part the area is flat and low with wooded and cultivated land equally distributed over the area.

4. Cape Charles City Harbor Northern Light is triangulation station "Cape Charles Jetty Light 1939", and not "Cape Charles Jetty Light, 1929", as stated in the Compilation Report.

9. At Cape Charles Harbor a group of wharves, breakwaters, and other shoreline structures are to be deleted. All that included within the green cross-hatch is to be deleted.

11. At the present time harbor improvements are being made at Cape Charles. The entire area falling within the green cross-hatch is to be deleted. The new outer boundary of the harbor is indicated by a continuous black line enclosing the green cross-hatch.

The limits of the large sand breakwater extending out into the bay from the shore is also indicated by a continuous black line. Dredging operations in a vertical direction are still being carried out in the harbor. The sand from dredging operations is being used to build the breakwater. This will probably cause a large change in the shape and size of the breakwater as now shown, however the change in the harbor proper will be slight if any at all.

In comparing the harbor limits with a project map furnished by the U. S. Engineers a small discrepancy was noted between the width of cut north and south. Due to cave-ins resulting from the operations, the actual, correct width is shown on the map manuscript while the width shown on the U. S. Engineers map is incorrectly shown.

For reference a map of the project can be obtained from the U. S. Engineers, Norfolk, Va.

15. Bridge classification was carried out in accordance with the instructions.

17. Political boundaries were obtained from maps ~~issued by the Virginia State Roads Commission~~ furnished by the Census Bureau and were verified in the field.

18. Geographic names were taken from a special report CS-278-C submitted by A. J. Wraight, Photogrammetric Aid.

46. Field edit consisted of visual inspection of the area. Where necessary taped distances were used in location. All additions, deletions and corrections were made on the map manuscript and transferred to the smooth copy after the field work had been accomplished.

The inking on the field edit sheet was done in accordance with the following scheme:

FEATURES	COLORS
Additions, elevations classifications	Black
Deletions	Green
Political Boundaries	Purple

47. The position and amount of detail on this manuscript is complete and accurate except in the vicinity of the railroad yards at Cape Charles; a blue print is attached to Map Manuscript T-8176 and should be consulted for the correct lay-out of the railroad yards.

48. A horizontal accuracy test was run in quadrangles T-8175 and T-8174.

There is such a small amount of contouring on this manuscript that a vertical accuracy test was considered unnecessary.

Submitted by

Wendell Bever

Wendell Bever,
Photogrammetric Aid

Approved:

F. L. Gallen

F. L. Gallen
Chief of Party

Form 567
(Rev. April 1942)

Chart letter 633 - 1942

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

List of permanent (non-floating) aids to Navigation
Sheet No. T-8176

LANDMARKS FOR CHARTS

TO BE CHARTED
TO ~~BE CHARTED FROM~~ } STRIKE OUT ONE

Tampa, Florida — Oct. 23, 1942, 19__

I recommend that the following objects which have (have not) been inspected from seaward to determine their value as landmarks, be charted on (~~latest data from~~) the charts indicated.

The positions given have been checked after listing.

Kenneth G. Crosby
Chief of Party.

GENERAL LOCALITY **Cape Charles, Virginia**

NAME AND DESCRIPTION	POSITION LATITUDE ° ′	LATITUDE D. M. METERS	POSITION LONGITUDE ° ′	LONGITUDE D. P. METERS	DATUM	METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
Cherrystone Bar Light	37 15	~~694~~ 696	76 01	1436	N.A. 1927	Sextant	1942		x		1222
Cherrystone Channel Light "9"	37 15	1212	76 01	~~1530~~ 1331	"	"	"		x		"
" " " "11"	37 15	1596	76 01	1286	"	"	"		x		"
" " " "13"	37 16	~~500~~ 503	76 01	~~1084~~ 1081	"	"	"		x		"
" " " "16"	37 16	~~1716~~ 1718	76 01	526	"	"	"		x		"
Destroyed 1942 Cherrystone Inlet Front Lt. Channel	~~37 15~~	~~1570~~	~~76 01~~	~~996~~	"	"	"		x		"
" " Rear Lt.	37 16	~~00~~ 5	76 01	~~887~~ 892	"	Radial Plot	"		x		"
Cape Charles City HarBor Northern Light	37 15	1773	76 01	1032	"	"	"		x		"
North Jetty Light	37 15	~~1790~~ 1789	76 01	696	"	Sextant	"		x		"
Destroyed 1942 Bulkhead Light	~~37 15~~	~~1640~~	~~76 01~~	~~545~~	"	"	"		x		"

Superseded by list Submitted by Galleon Dec 7, 1942

Corrected to Dec 9-1943

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

U. S. GOVERNMENT PRINTING OFFICE 16—27869-1

Chart letter 633 – 1942

Form 567
(Rev. April 1942)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

T-8176

LANDMARKS FOR CHARTS (AERONAUTICAL)

~~TO BE CHARTED~~ ~~TO BE DELETED~~ STRIKE OUT ONE

Onancock, Va. Dec. 7, 1942

~~I recommend that the following objects which have (have not) been inspected from seaward to determine their value as landmarks, be charted on (deleted from) the charts indicated.~~

The positions given have been checked after listing.

F. L. Gallen *Chief of Party.*

GENERAL LOCALITY Cape Charles, Va. / NAME AND DESCRIPTION	POSITION LATITUDE ° ′	LATITUDE D. M. METERS	LONGITUDE ° ′	LONGITUDE D. P. METERS	DATUM	METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
*TOWER, TRANSMISSION (190' high) (Transmission Tower)	37 15	1377.1	76 00	838.6	N.A. 1927	Triangu-lation	1942		x		Wash. (T-9)

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

U. S. GOVERNMENT PRINTING OFFICE 16—27869-1

GEOGRAPHIC NAME LIST FOR QUAD T-8176

Cape Charles
Cape Charles Harbor
Cherrystone
Cherrystone Inlet
Cherrystone Island
Custis Cove
Kings Creek
Mill Creek
Mill Point
Old Orchard Point
Owens Landing
Savage Neck
Wescott Cove
~~Wildcat Point~~
Wilkins Beach
Wescott Point
Northampton County
Chesapeake Bay

	Remarks	Decisions
1	Apply this name instead of Sandy Island pending USGB decision	372760
2		"
3		"
4		"
5		"
6		"
7		"
8		" USGB
9	Apply this instead of Cherrystone Inlet pending USGB decision	373760
10		"
11		"
12		"
13		"
14		"
15		373759
16		USGB
17		
18		Railway Guide
19		
20		
21		
22		
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES

Survey No. T-8176

WESCOTT POINT quadrangle

No.	Name on Survey	On Chart No. A,	On previous survey No. B,	On U. S. quadrangle Maps C,	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H		
	Cape Charles (town)										1
	Cherrystone Island			(Recent - U.S.B.B. decision)							2
	Kings Creek										3
	Mill Creek										4
	Cape Charles Harbor										5
	Owens Landing										6
	Mill Point										7
	Wescott Point										8
	Cherrystone Creek Inlet			= recent U.S.B.B decision							9
	Cherrystone										10
	Savage Neck										11
	Old Orchard Point										12
	Wescott Cove										13
	Custis Cove										14
	Wilkins Beach										15
	Chesapeake Bay										16
	Northampton County										17
	Pennsylvania R.R.										18
				[illegible]							19
				[illegible] tech on 11/9/43							20
											21
											22
											23
											24
											25
											26
											27

M 234

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/~~map manuscript~~. 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 ~~political boundaries~~, woodland, ~~marsh, and swamp limits~~, refer to the published quadrangle for the finally adopted positions.

Descriptive Report.

Filed in the Photogrammetric Section - Surveys Branch

Field inspection photographs.

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

Field edit sheet.

Descriptions of recoverable topographic stations (Form 524), filed in Reviewing Unit.

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.

Original celluloid manuscript.

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 field work by Commander K. T. Adams, 1944.~~

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.

~~Original celluloid manuscript.~~

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.

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

This quadrangle, together with similar adjoining maps produced under Project C.S.278, 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.

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 templets) 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 "blueline" 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.

DIVISION OF CHARTS

SURVEYS BRANCH

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-8176

Westcott Point QUADRANGLE

This quadrangle manuscript has been examined for completeness, accuracy, and conformity with the specifications. It is adequate for smooth drafting, reproduction and publication. Revisions found to be necessary in this office are discussed on the next page.

Horizontal and Vertical Accuracy

Refer to the Descriptive Report for T-8177 for the results of the closest horizontal accuracy test.

There is no horizontal or vertical accuracy test on this survey.

Previous Surveys

This manuscript has been compared with the following previous topographic surveys of this Bureau and other agencies. This map is satisfactory to supersede the previous surveys over the common area.

T-350	1851	1:20,000	
T-495	1852	1:20,000	
T-1534	1884	1:10,000	
T-2676	1904	1:20,000	
T-3438	1914	1:5,000	
"Westcott Point"	1937	1:62,500	U.S.E.

Comparison with Nautical Charts Nos. 1222

The manuscript has not been applied to the charts at the date of this review. The following comments are pertinent to the compilation and correction of nautical charts:

Numerous shoreline changes have taken place, particularly in the vicinity of the town of Cape Charles, and the nautical charts should be corrected accordingly.

The following revisions of the map manuscript were found to be necessary and were accomplished as a part of this review:

Only changes of a minor nature were necessary during the review of this map manuscript.

Reviewed 2/13/43 By W. W. Belling
for W. M.
under direction of D. H. Benson

Inspected by B. G. Jones B.G. Jones

Examined and approved:

Charles Peirce
~~Chief~~, ~~Surveys~~ ~~Branch~~
CHART DIVISION

J.B. Dodson
Chief, Div. of Charts

K.T. Adams
Chief, Topography Section

Raymond S. Patman
Acting Chief, Div. of Coastal Surveys