

8338

W.O.  
✓

Digit on Diag. Ch. No. 78-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic Quadrangle  
Project

Field No. CS-289-W1 Office No. T-8338

LOCALITY

State Virginia

General locality West Point

Locality 7½ Minute quadrangle

Photographs taken Dec. 1942 Supplemented  
by field surveys to

194

CHIEF OF PARTY

H.R. Cravat

G.E. Morris, Jr.

LIBRARY & ARCHIVES

DATE December 24, 1948

## DATA RECORD

T- 8338

Quadrangle (II): West Point

Project No. (II): CS-289-W1

Field Office: West Point, Va

H.R. Cravat (1945)  
Chief of Party: I.Y. Fitzgerald (1947)

Compilation Office: Tampa, Fla.

Chief of Party: George E. Morris, Jr.  
Lieut. Comdr.

Instructions dated (II III): ~~None~~  
 Instructions for the completion of War  
 Mapping Project CS 289-W-1 with various  
 amendments and supplements were issued  
 between March 1944 and Dec. 1945.

OFFICE FILES OF THE  
 Copy filed in Descriptive  
~~Report No. T~~ (VI)  
 DIVISION OF PHOTOGRAMMETRY

Completed survey received in office: Dec. 30, 1947

Reported to Nautical Chart Section: Jan. 5, 1948

Reviewed: Sept. 1948

Applied to chart No.

Date:

Redrafting Completed:

Registered: Oct. 14, 1948 (PRELIMINARY) Published:

Compilation Scale: 1:20,000

Published Scale: 1:24,000

Scale Factor (III): None

Geographic Datum (III): N.A. 1927

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

Reference Station (III): ~~(No geographic positions available in Tampa office  
 for this quadrangle)~~ BULLOCK 1934

Lat.: 37° 35' 31.386

Long.: 76° 52' 07.171

Adjusted

~~Unadjusted~~

State Plane Coordinates (VI): VIRGINIA STATE GRID, SOUTH ZONE

X = 2,472,651.45'

Y = 462,364.07'

Military Grid Zone (VI) ~~Virginia north grid~~ None shown

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
12916 - 20 incl.	31 Dec. '42	12:26	1:20,000	.48'
35 - 39 "	31 Dec. '42	12:57	"	.64'
86 - 89 "	31 Dec. '42	14:06	"	1.33'
8730-22-64	Oct 3, 1947			
8730-23-65	" "			

} Chesapeake Corporation Photos, filed in descriptive Report Envelope

Hampton Roads - Reference Station  
Tide from (III): West Point - Sub. Station.

Mean Range: 3.0 feet      Spring Range: 3.5 feet

Camera: (Kind or source) U.S.C. & G.S. 9-lens 8 $\frac{1}{4}$ " focal length

H.R. Cravat *(under Steamer? Jan 8-45 - ? 1945)*  
Field Inspection by: I.Y. Fitzgerald      date: 1947 *summer (ended 8-8-47)*

Field Edit by: S. J. Hawthorn      date: July 1948

Date of Mean High-Water Line Location (III): May, June 1944

Projection and Grids ruled by (III) Stephen Rose      date: July 1945

" " " checked by: " "      date: " "

Control plotted by: Dorothy Moseley      date: " "

Control checked by: Wm. D. Harris      date: " "

Radial Plot by: Wm. D. Harris      date: Aug. 1945

Detailed by: R.A. Reece      date: Sept.-Oct., 1947

Reviewed in compilation office by: J.A. Giles      date: Nov. 1947

Map Manuscript.  
Elevations on ~~Field Edit Sheet~~ ~~Field Edit Sheet~~  
checked by: J.A. Giles      date: Nov. 1947

STATISTICS (III)

Land Area (Sq. Statute Miles): 55 square statute miles

Shoreline (More than 200 meters to opposite shore): 48 statute miles

Shoreline (Less than 200 meters to opposite shore): 90 " "

Number of Recoverable Topographic Stations established: Nine

Number of Temporary Hydrographic Stations located by radial plot: None

Leveling (to control contours) - miles: 100 statute miles

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

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

Remarks:

*Depth Curves applied to the manuscript for T-8338 by Nautical Chart Branch. Div. of Charts have been transferred to the vault copy of T-8338.*

*K.H.M.  
3/11/49*



MAP T-83328

PROJECT NO. 289 40-1

SCALE OF MAP 1:20,000

SCALE FACTOR None

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR Y-COORDINATE LONGITUDE OR X-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS		DATUM CORRECTION		N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS	
				FORWARD	(BACK)	FORWARD	(BACK)	FORWARD	(BACK)	FORWARD	(BACK)
New 1911	599	NA 1927	37-36-39.156 76-50-24.331								
Roy 1911	599	}	37-36-00.464 76-49-41.471								
Clifton 1911	599		37-36-25.298 76-49-19.200								
Hill 1911	598		37-35-35.610 76-48-23.483								
Bullack 1934	143	}	37-35-31.386 76-52-07.171								
West Point Old			37-34-15.646 76-48-08.381								
Shipyard's Water Tank 1934	463		37-33-07.677 76-46-27.086								
East 1911	598	}	37-33-12.325 76-49-12.992								
Rail 1911	567		37-32-04.229 76-50-10.341								
Thor 1911	567		37-32-43.906 76-48-35.751								
West Point S.B. Henson water tank 1942	4-62	}	37-32-29.793 76-48-18.067								
West Point Chesapeake Corporation, larger water tank 1934	462		37-32-24.736 76-48-22.646								
" " "											
Smaller W.T. 1942	462										

1 FT. = 3048006 METER

COMPUTED BY: HRLC

DATE Aug. 1948

CHECKED BY:

DATE

M-2388-12



## Forward

T-8338 and the adjoining quadrangles were originally included in the War Mapping Program, Project CS-289.

All field inspection except leveling and contouring had been completed when the war mapping field work was discontinued in June 1944.

Field work was resumed in 1945 as a Coast and Geodetic Survey project, under Lt. Dale E. Sturmer as Chief of Party with the intention of compiling T-8338 and the adjoining quadrangles on the nine-lens plotting instruments.

The party was later transferred to Mr. Harland R. Cravat and T-8338 was contoured by planetable instead of stereoscopic instruments as a training area for new planetable operators. The field work was carried on intermittently and completed August 1947 by Mr. I. Y. Fitzgerald.

Items 2 to 25 except 1, 5, and 6 of the Field Inspection Report have been covered in a Special Field Inspection Report 289 W-1, 1944, ~~Filed in General Files of the Division of Photogrammetry.~~ *which forms part of the Project Completion Report.*

Field Inspection Report  
to accompany  
Quadrangle T-8338  
Project CS 289 W-1  
Virginia

Harland R. Cravat, Chief of Party

1. Description of the area.

West Point, Virginia quadrangle is located in the Tide Water Section of Virginia, about midway in an easterly direction from the city of Richmond to the Chesapeake Bay, at the head of the York River.

The land area, one to two miles back from the Pamunkey and Mattaponi Rivers is geologically mature, and as the rivers are approached, an emerged coastal plain of distinct old age is encountered.

Some of the most colorful incidents in American History have occurred here. While exploring and charting the New World, Captain John Smith sailed his ship into the Pamunkey River as early as 1608, taking on fresh water. Nearly one hundred and eighty years later the Revolutionary War was being waged. At the confluence of the Pamunkey and Mattaponi Rivers, where the city of West Point now stands, the American Army erected fortifications which were a determining factor in the defeat of Cornwallis at Yorktown.

Early American genteel living is in evidence at the old manor and plantation homes located along the Mattaponi and Pamunkey Rivers. One of the more interesting and open to the public is Chelsea. Other names which bear historical significance are Dixon, Brooks, Clifton and Custis. The original manor owned by the Widow Custis has been burned but the place is still known locally as the Old Custis Plantation.

In the development of the area, it merged from a wilderness into one of vast plantations which has now developed into many small farms and large woodland areas, all dependent upon the pulp industry for a livelihood.

Strategically located in the quadrangle is a modern pulp mill, accessible by road, rail, water, and air. It is interesting and gratifying to note that this mill has been using air-photos as an aid in their timber mensuration for more than ten years.

5. Vertical Control:

Bench marks were recovered and pricked on photos by the War Mapping Field Party in 1944.

New third and fourth order levels were started on January 8, 1945 under the direction of Lt. Dale E. Sturmer, U. S. Coast and Geodetic Survey. Due to the urgent need for new control in other quadrangles the leveling in this quadrangle was temporarily abandoned and later completed on August 8, 1947, by Mr. Harland R. Cravat, Photogrammetric Engineer.

About 4 miles of third and 66 miles of fourth order levels were completed.

Methods and instruments as prescribed by the Division of Geodesy for second order leveling <sup>was</sup> used for the third order leveling.

The fourth order leveling was done by trigonometric leveling methods, using a Kern Theodolite, and Simmons-Adams stadia rods. The Kern Theodolite was used as a combination angle and spirit level instrument. Elevations were computed to the nearest 1/10 of a foot. Loops over one mile in length were either closed on a point of known elevation or tide water. All loops were closed to the specifications as designated in the Acting Director's letter dated June 2, 1945, "Amendment to Supplemental Instructions-Fly Levels, Project CS-318, dated April 7, 1945.

All bench marks were identified on the photographs and supplemental spot elevations were identified along roads with a density not exceeding one every half mile.

#### 6. Contours and Drainage:

Planetable <sup>the direction of</sup> contouring on nine-lens photographs was started under Mr. Harland R. Cravat, Photogrammetric Engineer as a training project for new topographers.

Ten foot contours were sketched directly on 1:20,000 scale photographs, using planetable methods.

Most of the area was ideal for planetable contouring except along the eastern junction of the quadrangle. Here the terrain was so steep that an unusually large amount of time was consumed in attempting to comply with the vertical accuracy requirements.

Two planetable parties were operated continuously for three months, training five topographers. On April 1, 1945 all members of the party were transferred to other projects, leaving a small portion of T-8338 incomplete.

The work was inspected in the Review Section of the Washington Office and the contouring of certain areas was considered inadequate.

The incomplete and inadequate areas were than assigned to Mr. I. Y. Fitzgerald and completed during the summer of 1947.

Prepared by: 1-15-48

*Harland R. Cravat*

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Harland R. Cravat  
Cartographer, Photogrammetrist

COMPILATION REPORT  
TO ACCOMPANY  
WEST POINT  
QUADRANGLE T-8338

26 AND 27. CONTROL AND RADIAL PLOT:

The control and radial plot were completed prior to the projection being sent to the Tampa Photogrammetric office for compilation.

There are a number of substitute points (F.I.P.) shown on the map manuscript which do not have the corresponding triangulation plotted. It is assumed that this is to be done by the Washington Office since no positions for these stations are available in this office. *△ Plotted during review: WPLB*

28. DELINEATION:

Sufficient office photographs were supplied for the office delineation, but not so with field photographs. A good 50 per cent of the map manuscript was compiled without any field inspection to refer to, so, many details are without doubt omitted or inaccurate. It will be necessary for the field editor to make extensive field inspection as well as editing in order to complete the map manuscript satisfactorily. There are quite a few discrepancies in the areas covered by field inspection. These discrepancies have been noted on the discrepancy overlay or elsewhere in this report.

*All discrepancies were referred to field edit.*

Due to the hilly terrain it was necessary to cut in a good many detail points. It is believed that sufficient points were cut in to insure accurate location of all features.

29. SUPPLEMENTAL DATA:

None.

30. MEAN HIGH WATER LINE:

The mean high water line has been delineated according to the field inspection. ~~Mean high-water line with no field inspection was drawn as interpreted by the compiler.~~

31. LOW-WATER AND SHOAL LINES:

No low-water or shoal lines were recovered by the field inspector. Three small shoal areas have been shown by the compiler and so labeled.

32. DETAILS OFFSHORE FROM HIGH-WATER LINE:

No offshore obstructing detail such as rocks awash were shown by the field inspection. Further investigation by the field editor might be advisable, however.

33. WHARVES AND SHORELINE STRUCTURES:

Wharves and shoreline structures, especially in the vicinity of West Point, should be checked by the field editor. Since the photographs were good and clear, it is felt that shoreline structures are for the most part delineated as they should be.

34. LANDMARKS AND AIDS TO NAVIGATION:

None were recovered by the field inspectors.

35. HYDROGRAPHIC CONTROL: Please refer to FINAL REVIEW REPORT

~~Nine topographic stations were submitted and described on form #524. The photographs that these stations were pricked on were never received in this office, so the compiler pricked on the office photographs what he believed were the stations and cut them in on the map manuscript. Field editor will please check.~~

36. LANDING FIELDS AND AERONAUTICAL AIDS:

The West Point <sup>Municipal</sup> ~~Army~~ Airfield in the S.E. corner of this quadrangle has been shown according to field inspection notes.

37. POLITICAL BOUNDARIES:

County boundary lines have been shown as noted by the field inspector. No further information regarding boundary lines has been submitted by the field inspectors. For additional information refer to FINAL REVIEW REPORT

38. BRIDGES:

Two bridges have been delineated on this map manuscript. They are the Eltham (swing) bridge and the Gresham (bascule type) bridge. Horizontal and vertical clearances for both have been taken from the "List of Bridges over the Navigable Waters of the United States", July 1, 1941 edition. See notes on field photograph 12938 which refer to field photographs 12394.

Gresham bridge is no longer in existence. It has been replaced by the LORD DELAWARE BRIDGE. Please refer to FIELD EDIT AND FINAL REVIEW REPORTS, for further details.



#### 39. CONTOURS AND DRAINAGE:

Contours were shown according to the field inspectors notes. The drainage has been delineated to conform with that shown on the field contouring photographs. Drainage on the field photographs used in noting the interior and shoreline inspection is not in agreement and does not conform with that noted on the contoured photographs. After inspection under the stereoscope, the compiler is inclined to favor the drainage shown on the interior and shoreline inspection photographs. If the field editor finds this to be the case, contouring as well as drainage will have to be altered on the map manuscript, in a good many instances. The discrepancies in drainage have been noted on an ozalid print made of the map manuscript so as to make it easier for the field editor to recheck the areas in question.

*The above discrepancies were reconciled during field edit.*

Due to the rugged nature of the terrain at 37° 54' - 76° 51' all contours were not delineated but their position can readily be interpolated from notes.

Agreement between the contours of this quadrangle, and those joining it, is poor. To assist the field editor in making the junction a narrow strip of contours has been traced from prints of the adjoining quadrangles and shown outside the neat line on this map manuscript. (The quadrangle adjoining on the south has not been delineated.)

*See field edit report and final review report.*

40. ROADS: All roads were reclassified by the field edit party in accordance with photogrammetry instructions #10, 4-14-47

~~Roads have been classified in accordance with General Instructions - Classification and Compilation of Roads dated 30 June, 1945. Many roads were not classified by the compiler, due to the lack of field inspection notes.~~

#### 41. BUILDINGS:

There are no doubt a good many buildings that need to be either added or deleted from the map manuscript. Also, such buildings as schools, churches, public buildings, etc., have yet to be labelled. Field editor will please check. Buildings classified and identified by the Field Edit Party.

#### 42. VEGETATION:

Woodland and etc., have been delineated and labelled according to Photogrammetry Instructions No. 15 dated 16 June, 1947, as directed in a letter from the acting director, 711-rs, dated 10 September, 1947.

43. GEOGRAPHIC NAMES: 814 ✓

Geographic names noted on the U.S.C.S. quadrangle New Kent have been put on the map manuscript; however, the exact positions of some of the names are not known as was stated in a letter from the Washington Office dated 23 September, 1947. This is another phase of the map preparation that is not complete and will no doubt require re-investigation by the field editor unless the original geographic names report and map have been found prior to the sending of the map manuscript to be field edited. Geographic Name data was completed by the field edit party.

44. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES:

Comparison was made during compilation with the 1:62,500 scaled U.S.G.S. Quadrangle "New Kent", 1930 edition. A great deal of cultural change is noted. There is considerable change in position of contours throughout the area.

45. COMPARISON WITH NAUTICAL CHARTS:

There are no nautical charts available in the Tampa Office with which a comparison can be made.

Respectfully submitted,

*Richard A. Reese*

Richard A. Reese,  
Engr. Draftsman.

Approved and Forwarded:

*George E. Morris, Jr.*  
George E. Morris, Jr.  
Chief of Party.

FIELD EDIT REPORT  
QUADRANGLE T-8338  
Project CS-289-W1  
Riley J. Sipe, Chief of Party

The field edit was completed in accordance with Field Edit Instructions, dated 24 August 1945; Field Edit Instructions - Supplement I, dated 4 February 1946; and other current instructions that were applicable to the work.

Actual field work was completed by Stanley J. Hathorn, Photogrammetrist; assisted by Frank M. Wisiecki, Engineering Aide. Two rodmen were used for the bulk of the plane table work. Work was begun 19 April 1948 and completed 9 July 1948.

46. Methods:

The quadrangle was checked carefully by riding out all roads and trails.

Plane table and tape methods were used for additions and corrections made directly on the sheet; and also for a few corrections shown on the field photographs. All corrections on the photographs have been referenced on the field edit sheet by the photograph number.

Vertical accuracy tests and junction traverses were run in accordance with paragraph 43 of the 1945 Field Edit Instructions.

Additions and corrections are shown on the field edit sheet in red; deletions in green; vertical accuracy tests and junction traverses in violet with the exception of 2 short vertical accuracy tests that are shown in red; and bench marks located by field edit are shown in blue.

47. Adequacy of the Compilation:

In general, the compilation is believed to have been as adequate as the limited field inspection would allow. Addition of considerable field edit detail will provide a much more adequate manuscript.

However, the following weaknesses in compilation are suspected and are listed below for further consideration by the Reviewer:

- a. Delineation of pond detail. *Verified & corrected during review.*
- b. Delineation of secondary road alignment.
- c. Discrepancy between compiled contours and the contours as shown on the field photograph.  
(See note at NE corner of field edit sheet.)

48. Accuracy Tests:

No horizontal accuracy tests were requested.

Vertical accuracy tests were run in the areas as specified by the reviewer, and also in the areas where the drainage discrepancies suspected by the reviewer were found to exist. The junction traverses may also be considered as vertical accuracy tests.

As a result of the above tests it was found that the map will not meet the required standard of accuracy in the rough wooded areas. This includes parts of the area recontoured during the summer of 1947.

The contours were found to be so unrepresentative of the terrain in the vicinity of most of the drainage discrepancies noted by the reviewer that no attempt was made to reconcile them on the field edit sheet. Likewise, the contours along the junction traverses were found to be similarly weak, and only short segments of the contours were sketched to facilitate contour junctions with adjoining quadrangles.

*Contours were  
corrected.  
See Item 28  
of Review  
Report.*

A study of the field photographs used for contouring will show that very few plane table traverses were run into the wooded areas. A further study of the results of the vertical accuracy tests along with a stereoscopic examination of the photographs will show that much of the contour sketching was apparently without the benefit of any stereoscopic relief, or even a casual walk through the area by the topographer.

It is believed that the use of inexperienced, as well as unconscientious personnel, along with a fear of prohibitive field costs was largely responsible for the unsatisfactory contouring.

Because of the gross misrepresentation of the terrain this writer believes that under no circumstances should the sheet be published without a thorough reworking of all the rough wooded areas by office stereoscopic means.

It is also recommended that the map be published to show 10 foot contours up to and including the 40 foot contour and use 20 foot contours above the 40.

All fly level and plane table spot elevations shown on the photographs along with field edit vertical accuracy shots are considered adequate for use as spot heights for the office stereoscopic contouring at the interval recommended in the foregoing paragraph.

#### 2. Completeness of Field Inspection:

Considerable field inspection was required by the field editor to add detail omitted by the original field inspector and also new detail that was added between the field inspection and the field edit.

#### 4. Horizontal Control:

The azimuth mark for  $\Delta$  Brooks 2-1912 was reset in 1945 when the highway was moved slightly to conform with the new bridge over the Mattaponi River.

The azimuth mark was located by a three-point theodolite fix and the observed angles are included on the submitted form M-2226-12 for the mark. Form 526 is submitted in duplicate correcting the description of the triangulation station.

Two water tanks in West Point that are triangulation stations are easily visible from  $\Delta$  Brooks-1912.

#### 5. Vertical Control:

Five bench marks were identified (approximately); and recovery notes are submitted in duplicate for six bench marks, one of which was not found.

#### 9. Wharves and Shoreline Structures:

A detailed inspection was made in the vicinity of West Point and the photographs used are noted on the field edit sheet.

11. Landmarks:

All landmarks to be charted or deleted are submitted in triplicate on Form 567.

Three tanks (elev.) to be shown are triangulation. A new 250-ft. brick stack that will replace two smaller brick stacks at the pulp mill was located by theodolite cuts from nearby triangulation stations and is submitted on form 524. (Observations are included on the form 524.)

12. Hydrographic Control:

The eight photo-hydro stations selected by the field inspector were visited by the field editor and inspection notes were inked on the original form 524s. One station had been destroyed, and it was crossed off on the field edit sheet.

14. Road Classification:

Roads were reclassified in accordance with Photogrammetry Instructions No. 10, dated 14 April 1947, and Admendment, dated 24 October 1947.

Several roads leading to river landings have been crossed off the manuscript because they have grown over too much for traverse by ordinary vehicles.

15. Bridges:

The bridge information for the Eltham Bridge over the Pamunkey River in the U. S. Engineer "List of Bridges over the Navigable Waters of the U.S." dated 1 July 1941, was verified in the field, all clearances were carefully measured with a steel tape, and the published description and clearances were found to be correct.

The bridge information for the Lord Delaware Bridge (built since bridge book was published) across the Mattaponi River as shown on the submitted Chesapeake Corporation 1947 photograph #8730-23-65, which also shows new bridge and highway location, was measured carefully with a steel tape.

16. Buildings and Structures:

The bulk of the field inspection required by the field editor consisted principally of correcting the building compilation and adding newly constructed buildings.

The original compilation in the vicinity of the Chesapeake Corporation pulp mill in West Point was considered inadequate and a new inspection is submitted on a 1947 Chesapeake Corporation photo #8730-22-64. It is believed that by using the 1947 Chesapeake Corporation photograph along with one of our field photographs of the area, a more satisfactory compilation of the area will result. — Applied to map manuscript by reviewer.

17. Geographic Names:

The geographic names information requested by the reviewer is shown on the field edit sheet.

Landing names as well as roads leading to the landings along the Mattaponi River have lost importance with the development of inland transportation, and only a few of the oldtimers are familiar with most of these names shown on this sheet. However, some of these landings are still used every few years to load pulp wood on barges.

The Magisterial Districts as shown on the field edit sheet were verified by a field check.

Submitted  
12 July 1948

*Stanley J. Hathorn*  
Stanley J. Hathorn  
Photogrammetrist

Approved  
14 July 1948

*Riley J. Sipe*  
Riley J. Sipe  
Chief of Party

~~TO BE CHARTED~~

**STRIKE OUT ONE**

# NOT COATING AITS OR LANDMARKS FOR CHARTS

West Point, Va. 14 June 194

I recommend that the following objects which have ~~(none)~~ 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 by *H. P. Knauth*

Chart Letter 554 (1948)

**Riley J. Sipe**

Chief of Party

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION					METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHART AFFECT
				LATITUDE		LONGITUDE		DATUM						
				°	'	°	'							
Virginia	STACK	red brick, 250 ft. high Chesapeake Corp.		37° 32'	76° 48'	18.98	N.A. Sextant 1927	1948	X			495		
	TANK (ELEV)	brown wooden, 125 ft. high (West Pt. Shipyards W.T.)		37° 34'	76° 48'	08.38	" T-8338	1942	X			504		
	TANK (ELEV)	black metal, 120 ft. high (West Pt., S.B. Henson M.T.)		37° 32'	76° 48'	35.75	" "	1942	X			495		
	TANK (ELEV)	silver metal, 130 ft. high (West Pt. Municipal W.T.)		37° 31'	76° 47'	48.59	" "	1944	X			495		
			</											

This form shall be renewed in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonflats.



**DEPARTMENT OF COMMERCE**  
**U. S. COAST AND GEODETIC SURVEY**

# NOTHING-ADDS-OR LANDMARKS FOR CHARTS

STRIKE OUT ONE  
TO BE CHARTED  
TO BE DELETED

West Point, Va. 14 June 194

I recommend that the following objects which have ~~(been inspected)~~ been inspected from seaward to determine their value as landmarks be ~~erected on~~ *(deleted from)* the charts indicated.

The positions given have been checked after listing by

**Riley J. Side**

Chief of Part

[illegible]

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating*

Division of Photogrammetry  
Review Report of  
Topographic Map Manuscript T-8338

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

26. Control:

- a. Vertical -- The reviewer delineated on the map manuscript all existing bench marks of third order accuracy or better, from field inspection and field edit notes.
- b. Horizontal -- A list of all horizontal control delineated on the map manuscript is attached to this report. The substitute stations used to control the radial line plot have been removed from the manuscript.

Triangulation stations in the two river schemes extending up the Mattaponi and Pamunkey Rivers were plotted selectively. Their selection was determined by:

- 1. Permanence
- 2. Prominence
- 3. Distribution

28. Detailing:

- a. Cultural features -- The original delineation of cultural features was good. Small adjustments in road alignment, etc., were made by the reviewer as suggested by the field editor. All adjustments, except for new construction, were drafting errors.
- b. Hydrographic features -- The delineation of hydrographic features was excellent except for small inland water features, such as the shoreline of ponds and the omission of wooded drains. Corrections were made by a new delineation using the Reading Plotter, or a stereoscopic examination by the reviewer.
- c. <sup>Hypsographic</sup> ~~Hydrographic~~ features, (~~Contours~~) -- The delineation of ~~hydrographic~~ features on the original map manuscript was by ~~10 ft.~~ contours, using a ~~10 ft.~~ interval.

During the office inspection, the contours were carefully examined and it was felt that they were adequate in the flat areas and inadequate in the rough terrain.

Three lengthy vertical accuracy tests were made by the field edit party, which verified the assumptions of the office inspector.

Contour and drainage corrections were turned over to the Stereoscopic Instrument Section, for recontouring, using the Reading Plotter. The contour interval was changed from 10 to 20 feet, except as stated below.

In addition to all areas, suspected of being in error, complete new contours and drainage were plotted for the entire area, east of the Mattaponi River. The Stereoscopic Instrument Section furnished contours and drainage to the reviewer on vinylite strips, controlled by common radial plot points and road intersections, which were compiled by the reviewer, directly on the original map manuscript.

Large portions of the Reading Plotter contours on the east side of the Mattaponi River were not compiled as they conclusively proved the original planetable contours to be within National Map Accuracy Requirements, and were used only to determine the adequacy of the planetable work.

All vertical accuracy test information used to determine the adequacy of the planetable contouring, was withheld from the Stereoscopic Instrument Section, and used after the compilation of the new contours to determine the accuracy of the completed map. The results are discussed under heading 48 of this report.

Map Manuscript T-8338 is to be published with a 20 ft. contour interval and a supplemental 10 ft. contour in the low flat areas. The published contours will be equal to or better than National Map Accuracy Standards.

Portions of the 10, 30, 50, 70, 90 and 110 foot contours have been left on the map manuscript, but will not be drafted for publication. These contours have been retained on the map manuscript as added information, and have a probable accuracy of less than the published contours.

33. Wharves and Shoreline Structures: - Considerable shoreline changes have occurred in the immediate vicinity of West Point, since the original field inspection. The shoreline was corrected in accordance with the field edit survey.

34. Landmarks and Aids to Navigation: - All landmarks recommended by the field edit party have been shown on the map manuscript.

35. Hydrographic Control:- The original field inspection recommended nine natural objects or structures for hydrographic control. Five of these have been eliminated by the field edit party or reviewer, because of their close proximity to previously existing triangulation and the deterioration of the structures.

Four stations were retained. They were examined by the field edit party for permanence and accuracy of identification. The reviewer verified their location by photo cuts.

37. Political Boundaries:- All boundary delineation was verified by the field edit party except for the West Point City Limits. The West Point City Limits were delineated by the reviewer from a copy of the King William County Highway Map, published in 1944.

38. Bridges:- The new Lord Delaware Bridge was delineated from Chesapeake Corporation photographs acquired by the field editor. Bridge clearances, as measured by the field edit party are being forwarded to the District Engineer at Norfolk, Virginia, as follows:

Lord Delaware Bridge, 1.3 miles above mouth of Mattaponi River at West Point, Virginia. It is a swing bridge with a horizontal clearance between fenders of 81.5 feet, and a vertical clearance, closed of 12.3 feet above M.H.W.

39. Junctions:- Quadrangle T-8333 to the south has not been compiled, and a junction was not made. The field edit party ran a planetable junction traverse on the south neat line of field edit sheet T-8338, to insure a satisfactory contour junction with T-8333.

Satisfactory planimetric and contour junctions were made with all other quadrangles, except for a portion of the contour junction between T-8338 and T-8339. The errors were isolated by the planetable contour party and reworked using the Reading Plotter. Corrections were made back into T-8339, until agreement was reached.

The contour corrections have been applied to the registered copy of T-8339 and a correction copy furnished to the U. S. Geological Survey, where <sup>T-8339</sup> it is in the process of <sup>being</sup> publishing ~~T-8339~~. For the present, map manuscript T-8339 is being used by the Geological Survey and is not available for correction.

43. Geographic Names:- All Geographic Names discrepancies were resolved by the field edit party and have been approved by the Geographic Names Section of the Division of Charts.

Attached, following the review report, is a list of all Geographic Names.

\* There are some minor differences in road classification between T8338 and adjoining maps. No attempt was made to reconcile the differences. The adjoining field edit surveys were made two years previously. It is assumed that road improvement has taken place since the 1946 Field Edit Surveys.

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, and all common topographic features are superseded by T-8338:

722	60,000	1862
722a	20,000	1858
3243	20,000	1911
3254	20,000	1912
3382	10,000	1932

45. Comparison with Nautical Charts:- Comparison was made with Nautical Chart 504, scale 1:40,000 published in 1914 and corrected 1948.

<sup>new</sup>  
No information is of sufficient importance to warrant immediate application to the chart.

47. Adequacy of Compilation:- An examination of map manuscript T-8338 reveals it to be complete in all details as a topographic quadrangle and as a base map for common area nautical charts and hydrographic surveys.

48. Accuracy Tests:-  
Horizontal:

No horizontal accuracy test was made. The combination of adequate nine-lens photographic coverage, nine-lens radial plot methods and the abundance of horizontal control, insures a horizontal accuracy equal to or better than National Map Accuracy Requirements.

Vertical:

Three vertical accuracy tests were made by the field edit party. The vertical accuracy was found to be well within the tolerances prescribed for National Map Accuracy Requirements, after changes were made, mentioned under Item 2 of this report. For further details refer to the Summary and Abstract of Vertical Accuracy Test, following this review report.

Reviewed Sept. 1, 1948

By: Harland R. Cravat  
Harland R. Cravat  
Cartographer, Photogrammetrist

APPROVED BY:

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

H. R. Edmonston  
Chief, Nautical Chart Branch  
Division of Charts

K. T. Adams  
Chief, Div. of Photogrammetry

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

# GEOGRAPHIC NAMES

Survey No.

T-8338

WEST POINT 7 $\frac{1}{2}$ ' quadrangle

1 Name on Survey

	A	B	C	D	E	F	G	H	K	
Virginia									USGB	1
King and Queen County										2
No Buena Vista District					✓					3 ✓
King William County										4
No West Point District					✓					5 ✓
New Kent County										6
No Weir Creek District										7
No Cumberland District (section of Hill Marsh apparently in this district)					✓					8 ✓
York River										9
Pamunkey River									USGB	10
Mattaponi River									"	11
Southern Railway										12
State Roads Nos. 14, 30, 33										13
										14
Mattaponi East of York and Pamunkey Rivers:										15 ✓
Bakers Creek					✓					16 ✓
Robinson Creek					✓					17 ✓
Golders Creek					✓				USGB	18
Goff Point					✓					19 ✓
Municipal West Point Army Airfield										20 ✓
Lord Delaware Graham Bridge										21 ✓
Chain Ferry Road										22 ✓
Burnt Mill Creek					✓					23
Corbin Creek					✓					24
Corbin Pond					✓					25 ✓
Elson					✓					26 ✓
Muddy Point					✓					27

## GEOGRAPHIC NAMES

Survey No.

T-8338

GEOGRAPHIC NAMES												
Survey No.												
T-8338												
Name on Survey		A	B	C	D	E	F	G	H	K		
2	Goose Creek <sup>ND</sup>	(name from a letter received in 1941 about Dixon and Ryefield Creeks: probably the northerly of two small creeks just north of Muddy Point)									1 =	
											2	
	Dixon Landing	(as on chart 504)				✓ = as on chart 504					3 ✓	
	Dixon Creek	(positions of Dixon and Ryefield Creeks reversed from those on USGS quadrangle)									4 ✓	
	Ryefield Creek	✓ = Northerly									5 ✓	
	Ryefield Landing	✓ = as on chart 504									6 ✓	
	Waterfence Landing	✓ = waterfence									7 ✓	
	Waterfront Landing	(first name is from a 1912 C & G S survey: no objection to change, if it agrees with local usage. Waterfence checked as correct in original names report) (See page 4, line 8)									8 ✓	
											9 ✓	
	Shanghai	✓ = position slightly to NW (at Pleasant Hill school)									10 ✓	
	Pleasant Hill School	✓									11 ✓	
	Tastine Swamp	(note item in original names report separating it into Big and Little Tastine Swamps: proper application of these names should be checked)									12	
		(use only Tastine Swamp)									13	
	Clifton										14	
	Plymouth Swamp	(original names report showed local usage to be Plymouth Swamp: presumably from name Little Plymouth to east of it)									15	
											16	
	Old Mill Creek	✓									17	
	Boardley	✓									18	
	Heartquake Creek	✓ = Boardley Cr. however, stat Heartquake pending U.S. B-N decision.									19	
											20	
	Between Mattaponi and Pamunkey Rivers:										21	
	Foxes <sup>ND</sup>	(these two names on chart 504 apparently apply to old estates: the former map be on quadrangle to north; latter on edge of this quad. Both checked as OK by original names report)									22	
	Huntington <sup>ND</sup>										23	
											24	
	Custis Pond	(outlet is Mill Creek)									25	
	Mill Creek	✓									26	
	Kentuckey Farms	(any reason to change from "Farm" on chart 504?)									27	

M 234



# GEOGRAPHIC NAMES

Survey No. T-8338

3	Name on Survey	A	B	C	D	E	F	G	H	K
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	F. Fair Sheet	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
✓	Chelsea <del>Farm</del> Name Farm omitted by <del>Hand</del> ✓ = new position in bank Mattapan R. 35.9' / 49.61					✓				1 ✓
✓	Ephesus Church					✓				2 ✓
✓	Romanoke					✓				3 ✓
✓	Port Richmond					✓			USGB	4 ✓
✓	Sunny Slope Cemetery								(per original names report, it is at "cam" of USGS quad. between Port Richmond and West Point)	5 ✓
✓	Herrick Creek					✓				6 ✓
✓	Olssons Pond								(new name, on Herrick Creek)	7 ✓
✓	Lee Marsh					✓				8 ✓
✓	West Point					✓			USGB.	9 ✓
✓	Pamunkey Trail - Washington					✓				10 ✓
✓	Burgess Route								State No. 30	11 ✓
✓	South end west of Pamunkey River:									12
✓	Eltham Bridge					✓				13 ✓
✓	Baker Creek					✓				14 ✓
✓	Plum Point					✓			USGB	15 ✓
✓	Plum Point School					✓				16 ✓
✓	St. Lukes Church					✓				17 ✓
✓	Ferry Creek					✓				18 ✓
✓	Mill Creek								(new name: trib of Thorofare)	19 ✓
✓	Thorofare					✓				20 ✓
✓	Eltham Marsh					✓				21 ✓
✓	Hill Marsh					✓				22 ✓
✓	<del>Bow Hook Road</del> No. Rd. <del>Hand</del> ✓ Not Hill Marsh									23
✓	New names in original names report, not located in absence of accompanying marked copy of "New Kent" quadrangle:									24
✓	Chelsea Road								✓ NEly from Romanoke to Chelsea Farm	25 ✓
✓	Clifton Road								✓ NEly from Clifton	26
✓	Old Colonial Church								✓ Old church - W. side #14, 36.2' / 46.3'	27 ✓

## GEOGRAPHIC NAMES

Survey No.

T-8338

4	Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E Field Edit On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K
	<u>Dixon Road</u>					✓ = wly from #14 to Dixon Ldy				1 ✓
	<u>Fork Shop</u>					✓ = former name of a mill = see below				2 ✓
	<u>Kentucky Road</u>					✓ = NNEly from #30 to Kentucky Farm				3 ✓
	<u>Custis Mill Road</u>					✓ = Custis Mill Road				4
	<del>Baptist</del> Delete denomination <u>Olivet Church</u> +Pb					✓ on #14 = 26.4'/46.5'				5
	<u>Shipyard Road</u>					✓ Port Richmond to Mattaponi R.				6 ✓
	<u>Walton Road</u>					✓ = SWly from #14 to near E. bank Mattaponi R. lat. 34.2, long 46.9				7 ✓
	<u>Water Fence Road</u>				(see line 7, page 2)	✓ = one word: NEly from water- fence ldy to position of Shanghai				8 ✓
	<u>West Point Country Club</u>					✓ = about 33.5'/49.5'				9 ✓
	<u>Brookeshire</u>					✓ (East bank, opp. lower end of West Point)				10
	Names underlined in red are approved, and finally located: positions and applications of other names should be newly investigated. 1/20/48									12
	L. Heck									13
	<u>Fork Shop Road</u>					✓ = Ely from #14 at 55.9' 45.9'				14
	<u>St. Theresa Cemetery</u>					✓ = south side sunny slope Cem.				15 ✓
	Above list revised 8/24/48 on basis of Field Edit Sheet. L. Heck									16 ✓
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27



## TOPOGRAPHIC MAPPING

## Summary &amp; Abstract of Vertical Accuracy Test

Project No. 289 w-1 Quad. No. 8338 Quad. Name West Point  
 Method of Testing Plane table profile levels  
 Tested by Hawthorn Date June 1948 Evaluated by W.P.L.  
 Contour interval 20 ft. 63 M.M. allowable shift at 1:20,000  
~~map or manuscript scale.~~

\* and supplemental 10' contours.

154 Total number of points tested

90 % of points within  $\frac{1}{2}$  contour interval or better

140 Test points correct within  $\frac{1}{2}$  contour interval

12 Test points in error between  $\frac{1}{2}$  and full contour interval

2 Test points in error over full contour interval

Test Elev.	Map Elev.	Error	Error after shift	Remarks	Test Elev.	Map Elev.	Error	Error after shift	Remarks
49	49	0	0		32	40	8	0	steep
38	38	0	0		41	39	2	0	
33	33	0	0		26	24	2	0	
30	28	2	2		28	30	5	0	
30	33	3	2		34	18	16	9	steep
28	31	3	2		57	25	32	27	
30	27	3	2		69	59	10	10	
29	25	4	1		64	59	5	5	
30	20	10	8		48	21	27	18	steep
20	21	1	1		29	29	0	0	
13	21	8	6		40	38	2	1	
31	18	13	11		29	29	0	0	
12	19	7	5		54	45	9	8	
29	22	7	6		108	108	0	0	
11	18	7	7		106	106	0	0	
31	20	11	8		104	104	0	0	
61	60	1	0		103	99	4	4	
28	28	0	0		104	99	5	5	
53	25	28	14	steep	104	99	4	4	
28	22	6	5		92	85	7	7	
33	50	17	7	steep	42	42	0	0	
58	48	10	4		46	46	0	0	
23	20	3	2		44	44	0	0	
61	22	39	39	Mix-placed dots	87	82	5	0	
49	20	29	28	" "	66	82	16	14	
44	44	0	0		98	90	8	6	
47	47	0	0		65	60	5	0	
48	48	0	0		13	20	7	4	
58	61	3	2		34	34	0	0	
68	68	0	0		29	29	0	0	
67	67	0	0		38	38	0	0	
67	59	8	8		36	36	0	0	
59	55	4	4		17	27	10	9	
41	50	9	9		40	39	1	0	
52	50	2	2		30	34	4	4	



## TOPOGRAPHIC MAPPING

## Summary &amp; Abstract of Vertical Accuracy Test

Project No. \_\_\_\_\_ Quad. No. \_\_\_\_\_ Quad. Name \_\_\_\_\_  
 Method of Testing \_\_\_\_\_  
 Tested by \_\_\_\_\_ Date \_\_\_\_\_ Evaluated by \_\_\_\_\_  
 Contour interval \_\_\_\_\_ ft. \_\_\_\_\_ M.M. allowable shift at \_\_\_\_\_  
 map or manuscript scale.

\_\_\_\_\_ Total number of points tested  
 \_\_\_\_\_ % of points within  $\frac{1}{2}$  contour interval or better  
 \_\_\_\_\_ Test points correct within  $\frac{1}{2}$  contour interval  
 \_\_\_\_\_ Test points in error between  $\frac{1}{2}$  and full contour interval  
 \_\_\_\_\_ Test points in error over full contour interval

Test Elev.	Map Elev.	Error	Error after shift	Remarks	Test Elev.	Map Elev.	Error	Error after shift	Remarks
43	43	0	0		71	41	30	20	
39	41	2	1		97	80	17	16	
52	60	8	7		94	94	0	0	
47	47	0	0		53	53	0	0	
44	44	0	0		53	60	7	0	
45	45	0	0		91	78	13	9	
77	62	15	5	steep	97	101	4	4	
92	92	0	0		68	81	13	9	
115	115	0	0		106	106	0	0	
107	107	0	0		103	93	10	3	
88	100	12	5		71	100	29	14	Very steep
56	79	23	6	very steep	95	101	6	5	
78	74	4	4		89	80	9	7	
73	60	13	10		66	50	16	6	
30	39	9	8		49	81	32	20	steep
72	61	11	6		84	80	4	0	
91	78	13	9		93	93	0	0	
71	75	4	0		92	92	0	0	
106	83	23	17		62	72	10	0	
97	95	2	0		97	97	0	0	
123	123	0	0		72	75	3	0	
78	98	20	9	Road Cut	91	91	0	0	
51	59	8	7		66	66	0	0	
41	39	2	0		62	50	12	0	steep
31	41	10	10		75	70	5	0	
49	49	0	0		31	31	0	0	
82	60	22	14		36	35	1	1	
41	41	0	0		40	41	1	0	
52	70	18	8		42	41	1	0	
93	93	0	0		33	33	0	0	
92	101	9	9		39	39	0	0	
80	95	15	11		38	38	0	0	
58	81	23	12		53	53	0	0	
86	98	12	10		61	60	1	0	
40	40	0	0		70	71	1	0	



Test Elev.	Map Elev.	Error	Error after shift	Remarks
93	84	9	0	Steep
53	49	3	2	
62	62	0	0	
93	79	14	9	
65	60	5	0	
62	60	2	0	
92	70	22	17	
62	58	4	4	
48	48	0	0	
88	81	7	5	
56	60	4	0	
62	62	0	0	
48	48	0	0	
93	81	12	5	

## NAUTICAL CHARTS BRANCH

SURVEY NO. T-8338

### 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.



## NAUTICAL CHARTS BRANCH

## 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.