8611

Diag'd. on diag. ch. No. 78-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic
King William
Field No. T-8611 *Office No.* CS-318

LOCALITY

State Virginia

General locality 30 ± Miles, North-East of Richmond

Locality 20± Miles North-west of West Point, Va.

1946

CHIEF OF PARTY

William F. Deane

LIBRARY & ARCHIVES

DATE Dec 21-1947

8-1870-1 (1)++

8611

Form T-1

DATA RECORD

T-8611

Quadrangle (II): King William Project No. (II): CS-318

Field Office: West Point, Va. Chief of Party: Dale E. Sturmer

Compilation Office: Baltimore, Md. Chief of Party: William E. Deane

Instructions dated (II III): March 10, 1945 Copy filed in ~~Descriptive Report No. T-~~ Div. of Photogrammetry Office files. (VI)

Completed survey received in office: Oct. 8, 1946

Reported to Nautical Chart Section: Oct. 10, 1946

Reviewed: August 1947 Applied to chart No. Date:

Redrafting Completed:

Registered: ~~Preliminary registration~~ Dec. 10, 1947 Published:

Compilation Scale: 1:20,000 (Multiplex Scale 1:8500) Published Scale: 1:24000

Scale Factor (III): 1.000

Geographic Datum (III): N.A. 1927 Datum Plane (III): Mean Sea Level

Reference Station (III): King William, 1934

Lat.: 37° 41' 16.766" Long.: 77° 00' 47.636" ~~Unadjusted~~ Adjusted

State Plane Coordinates (VI): Virginia South Zone

X = 2,430,217.37 Ft. Y = 496,600.74 Ft.

Military Grid Zone (VI)

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
45-C-1919 to 1927	3/23/45		1:20,000	
-1946 to 1954	3/23/45		"	
-1972 to 1981	3/23/45		"	
-1999 to 2007	3/23/45		"	
45-C- 399 to 401	1945		"	
45C 326	JAN 1945		"	
45C 367	" "			

Tide from (III): Tide Tables, Atlantic Ocean, 1945, White House, Pamunkey River Reference Station Hampton Roads

Mean Range: 3.0 ft **Spring Range:** 3.4 ft.

Camera: (Kind or source) C. & G. S. Single Lens "C"

Field Inspection by: Alfred R. Knaack, Thomas W. Merriken, Jr., Harland R. Cravat **date:** Fall, 1945

Field Edit by: I.Y. Fitzgerald **date:** May, 1947

Date of Mean High-Water Line Location (III): March 23, 1945

Projection and Grids ruled by (III) S. Rose **date:** May, 1945

" " " **checked by:** **date:**

Control plotted by: H.P.Eichert(1:20,000 manuscript) **date:** July, 1946

Control checked by: E.L.Bauman (1:20,000 manuscript) **date:** July, 1946

Radial Plot by: G. B. Willey **date:** Dec. 1945

Detailed by: H.P.Eichert & A. C.Rauck, Jr. **date:** March-May 1946

Reviewed in compilation office by: S.W.Trow **date:** Oct., 1946.

Elevations ~~on Field Edit Sheet~~ on Map Manuscript **checked by:** ~~Harland R Cravat~~ **date:** July, 1947

STATISTICS (III)

Land Area (Sq. Statute Miles): 59.14

Shoreline (More than 200 meters to opposite shore): 9.5

Shoreline (Less than 200 meters to opposite shore): 11.0

Number of Recoverable Topographic Stations established: None

Number of Temporary Hydrographic Stations located by radial plot: None

Multiplex models)
Leveling (to control ~~contours~~) - miles: See Field Inspection Report

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: The 1947 mean magnetic declination for the center of manuscript is 6° 15' W

Statement to Accompany Descriptive Report T-8611

1. This summary of survey methods used and the method of handling T-8611 and adjoining quadrangles is provided for the convenience of those processing and using the map in the future.

2. The several mapping operations were:

(a) Single-lens aerial photography and laboratory processing.

(b) Field surveys for identification of shoreline, clarification of photographic details, and the establishment and identification of horizontal and vertical control.

(c) Compilation of planimetry and contours by multiplex on 1:8500 scale manuscripts and the assembling of the multiplex manuscripts into a 1:20,000 scale manuscript.

(d) Preliminary office review of the compiled manuscript.

(e) Field edit and accuracy tests.

(f) Final office review of the manuscript to insure completeness and conformance with specifications. This included correction of the manuscript in accordance with the field edit survey.

3. T-8611 and the adjoining quadrangles will be smooth drafted, published, and distributed by the Geological Survey in accordance with the agreement of March 25, 1947.

4. The following data for T-8611 may be needed from time to time either in the U. S. Geological Survey or the Coast and Geodetic Survey. They are filed and may be obtained as follows:

(a) Filed in the Division of Photogrammetry

(1) 1:20,000 scale manuscript, field edit and final review corrections applied.

(2) Original 1:8500 scale multiplex manuscript <u>not</u> corrected after field edit.

(3) Field Edit Sheet.

(b) Filed in Coast and Geodetic Survey Archives

The descriptive report together with a 1:20,000 scale cloth mounted photographic print of manuscript is being permanently registered. When T-8611 is published a cloth backed copy of the published map will also be registered.

Harland R. Cravat

Harland R. Cravat
Cartographer Photogrammetrist
November 10, 1947

FIELD INSPECTION REPORT

T-8611, King William Quadrangle, (37 37.5 / 77 00 / 7.5)

Project CS-318

Harland R Cravat, Chief of Party

1. Description of the area:

Quadrangle T8611 is a seven and a half minute quadrangle drained by both the Mattaponi and Pamunkey Rivers in the tide water section of Virginia.

It was but a few decades ago that most travel in the area was by river boats on the Mattaponi and Pamunkey Rivers. Along these water ways are found several magnificient mansions which are reminiscent of the old slave days. Among the many intreging incidents of early american history which occurred here was the meeting of George Washington and the Widow Custis. -- The story goes as follows. On the Poplar Grove Farm where George Washington, crossing the Pamunkey River from Williams Ferry Landing was reach invited by Col. Chamberland to stop, but being in a hurry to ~~get to~~ Williamsburg, he refused until he was asked to meet the handsome wealthy young widow Custis; he was then not in such a hurry but tarried a whole day.

For the most part the land is characterized by deep, sharp drains and long narrow ridges with low flat bottom lands along the rivers. The elevation ranges from sea level to about 180 feet above mean sea level.

About half the area is covered by stands of pine, hardwoods, and mixed species. Pine is cut commercially for pulp, lumber, and wood. The hardwoods cut to a lesser extent and used chiefly for railroad ties, barrel staves and fence posts. The remainder of the land is given to agricultural activities.

There are no thickly populated areas but a good network of roads, and in many sections adequate electric power and telephone service i give the local inhabitants conveniences comparable to a more urban area.

2. Completeness of Field Inspection:

Field inspection was done in conjunction with 4th order leveling by Mr. Alfred R. Knaack, Engineering Aid. It is felt the inspection was neither adequate nor complete, and as an aid to the field edit party the phases of the field inspection are broken down under two headings, "Adequate and Inadequate." It was felt the items mentioned under inadequate could be completed efficiently and economically at the time of field edit.

"Adequate"

Woods
Classified as per the Directors Instructions dated, 30 June 1945

Bridges
Bridges over navigable waters were measured and the measurements noted on the respective photographs. The clearance was not checked against the "List of Bridges Over Navigable Waters of the United States" published by the U.S. Corps of Engineers. Since the list was not available to the field party it is recommended the check be made by the compilation office and should any discrepancy exist it can be clarified at the time of field edit. (see photo 1926- 1926)

Obscure buildings
Obscure buildings were circled in red ink.

Public buildings
Public buildings were circled in red ink, and the name of the building inked on the photo.

Boundaries
Boundaries were drawn on the photos with red ink in the fb ld.

Other photographic detail as borrow pits and sawdust which might not be obvious to the compiler have been noted on the photos.

"Inadequate"

Roads
All main roads have been classified as per the Directors Instructions dated 30 June, 1945 and road numbers have been included. A review of the photos indicates there are a large number of class 4 or less roads which were overlooked by the field man, obviously some of these should be deleted and others classified. It is hoped the compilers will show the unclassified roads, as they are an aid to the field edit man and can be classified or deleted after they have served his needs.

Telephone lines
None were located

Power lines
None were located

Out buildings and buildings past their useful life were not deleted

3. Interpretation of the Photographs:

Open lands appear on the photos from a smooth white tone to a smooth grey tone. Forested areas appear from a light mottled grey tone to a mottled black tone.

Pure stands of pine are mottled black. Pure stands of hardwoods are mottled grey. Mixed stands are a combination of the two above tones. Recently logged areas may be distinguished by white thread like fissures interwoven in the mottled grey or black tones.

Deciduous timber is found chiefly in low areas, in flat draws, and flat bottom lands. In many instances the swampy land can be delineated by the presence of deciduous timber. Generally the pine is found on the higher ground.

4. Horizontal Control:

Four horizontal control stations were pricked and recovered, of these the following were recovered early in 1944 by the War Mapping Field Party.

Vine	1912	For further details see descriptive report submitted by the War Mapping Field Party. Quad, 8348, Project CS 289
Log	1912	

U. S. Coast and Geodetic Survey triangulation stations Rumford and King William were recovered and pricked by the substitute station method by Harland R. Cravat, in the spring of 1945.

The U. S. Geological Survey primary traverse stations in this quadrangle were not identified by the field inspection for horizontal control of the compilation. They were, however, used for horizontal accuracy testing after completion of the compilation. A summary is included at the back of this report.

4. Vertical Control

All vertical control information appears on the photographs in blue colored ink. It was planned to have this information on the odd numbered photos, but through a misunderstanding vertical control is on both the odd and even numbered photos.

Recovery

Bench mark recovery was done in conjunction with the leveling by Mr. Alfred R Knaack, Engineering Aid, and Mr. Harland R Cravat, Photogrammetric Engineer. The following BM's were pricked on appropriate photos, and recovery notes submitted.

USC & GS

Previous work	New Work
S 273, 1942	B 292, 1945
T 273, 1942	C 292, 1945
U 273, 1942	D 292, 1945
V 273, 1942	E 292, 1945
W 273, 1942	Y 292, 1945
X 273, 1942	Z 292, 1945
Y 273, 1942	B 293, 1945
Z 275, 1942	C 293, 1945
A 273, 1942	

U. S. G. S.

Pricked & Recovered	Destroyed
148 Va. 1917	57 Va. 1917
177 Va. 1917	128 Va. 1917
21 Va. 1917	
90 Va. 1917	

3rd Order Levels

Eighteen linear miles of third order leveling was completed by Mr. Alfred R. Knaack, between the dates 2-5-45, and 2-14-45. The methods used and character of marks are those as prescribed in Special Publication #140.

4th order levels

About 60 linear miles of 4th order leveling was completed by Mr. Knaa ck between the dates 6-4-45, and 6-26-45.

Elevations were carried by trigonometric methods, using a Kern Theodolite fitted with stadia hairs and Simmons-Adams leveling rods. Elevation computations were made by stadia slide rule to the nearest 1/10 of a foot. Trigonometric loops over one mile in length were closed on either a previously determined elevation or an existing bench mark. Short spur lines less than one mile in length were run either open ended or double rodded.

(Doublerodded is where a foot scale was read on the front and

a meter scale was read on the back of the rod. At the terminal point the spread between the feet and the meter values were computed. If the spread exceeded one foot the spurr was rerun.

Level information appears on the photographs in blue ink. All points were pricked, and the necessary information written on the backs of the photographs, near their respective points.

The code letters KW prefix all spot elevations and the following system was used to segregate the closed elevations from the unclosed elevations.

Elevations circled indicate the loop was not closed on a known point of elevation.

Elevations underscorred by a full line indicate the loop was closed on an existing mark or previously determined elevation.

Elevations underscorred by a dashed line indicate the point in question is a spur double rodded line.

There were no 4th order level loops known to exceed the required limits of accuracy.

Submitted with the photos is a layout showing the approximate position of the key spot elevations. Also on the fly leaf of each level volume is found the following information; loop (spot elevations), page, closure, field notes checked by, adjustment checked by, inked on Photograph #, and copy checked by.

6. Contours and Drainage:

No contouring was done at the time of Field Inspection and very little drainage clarification and classification. The swamp areas along the Mattaponi and Pamunkey Rivers have been delineated at the time of shore line inspection.

While leveling the culverts were marked in red ink; the letters CV were used and the symbol (⋎) indication the crossing.

7. Mean High Water:

Both the Mappaponi and Pamunkey Rivers are affected by tide water. Mr. Harland R Cravat inspected the shore line on the Mattaponi River, and Mr. Thomas W. Merriken Jr., Engineering Aid inspected the shore line on the Pamunkey River, during the fall of 1945.

The shore line as seen by the navigator was indicated by a red dashed line at intervals where the shore line was indistinct also a red dashed line indicates the mean high water line.

A portion of the area is in a marsh grass and swamp area. The inshore boundaries of these details were indicated by a dashed blue line. Appropriate field notes on the photographs were used as an aid to clarify the shore line details.

8. Low Water Line:

No attempt was made to locate the low water line. Marsh and grassy tufts which are awash at low water have been indicated on the photographs by field notes.

Most of the small islands are covered at MHW with docks and grass extending above the surface but at low water they are bare, with about 1.5 feet extending above the surface.

9. Wharves and Shore Line Structures:

Both the Mattaponi and Pamunkey Rivers are used for barge traffic. Much Pulp wood and wood products are transported by this means, also the waterways are extensively used for small pleasure craft.

There are no large wharves or shore line structures of a permanent nature, however there are many small docks which are clearly visible on the photographs. Piers

The landings used by the pulp wood barge traffic are not of a permanent nature. New langings are frequently added as the source of pulp wood supply is shifted.

10. Details Offshore from the High-water line:

Since the shore line was inspected on foot it was difficult to obtain the off shore detail. No rocks or wreckage was visible and it is felt there were no such obstructions in the water. Local information also supports this belief.

11. Landmarks and Aids to Navigation:

There are no prominent land marks or aids to navigation within the limits of the quadrangle. The rivers wind and twist through mostly wooded sections with an occasional clearing breaking the dense woods.

The channels are marked by temporary day marks, which consist of 50 gallon oil drums weighted and dropped by the barges. They often are washed ashore and set adrift by storms.

The Fire look out tower at King William is a Land Mrk. It is a steel tower 115 feet high; it is not visible from the water.

12. Hydrographic Control:

No hydrographic control was established. ~~The five horizontal control stations recovered by the War Mapping Field Party are thought to be Hydrographic Stations. (see item 4).~~ 2.

13. Landing Fields and Aeronautical Aids:

There are no landing Fields within the limits of the area. The Mattaponi and Pamunkey Rivers, the main roads and the Fire Lookout Tower at King William are all aids to aeronautical navigation in day time flight. There are no beacons in the area.

14. Road Classification:

Roads have been classified according to the directors instructions dated 30 June, 1945. Route numbers have been included.

15. Bridges:

The State Highway bridge at Walkerton Va. is the only bridge over navigable waters.

This bridge is a swing draw and is attended 24 hours a day. While closed it has a 8 foot clearance a bove the water and when open unlimited. It has a ~~45~~ 52 foot fender clearance. (see bridges under item #2)

See Field ed.+ Report

Other bridges were classified according to War Mapping Instructions: they may be disregarded.

16. Buildings and Structures:

Obscure buildings were circled in red ink.

Public buildings were circled in red ink and the name of the building inked on the photograph.

Out buildings and buildings past their useful life have not been deleted.

17. Boundary Monuments and Lines:

The county and political boundaries were verified in the field and inked on the photos, by Mr. Alfred R. Knaack, Engineering Aid.

18. Geographic Names:

Geographic names are the subject of a special report by Mr. Harland R Cravat.

19. Coast Pilot Information:

Gasoline is available for boats on the Mattaponi River at Walkerton, Va. Docking is also available for small craft. Also see items 10, 11, and 15.

20. Notes for the compilers:

The photographs used for this quadrangle were not segregated into two sets, even numbers for interior inspection and odd numbers for vertical control. Both phases of the work appear on either set.

The horizontal control was pricked on photos of Jan. 1945, and forwarded to the Washington Office in July of 1945.

See Roads under Item #2.

The following photos are being forwarded with this quadrangle:

1975 to 1980 incl.
1920 to 1926 incl.
1947 to 1953 incl.
2000 to 2006 incl.
2024 to 2031 incl.

Photos 2024 to 2031 also cover work in quadrangles T 8612

Respectfully submitted
Nov. 7, 1945

Harland R Cravat

Harland R Cravat
Photogrammetric Engineer

26. CONTROL

The Baltimore Compilation Office was furnished by the Washington Office Vinylite work sheets at a scale of 1:8500. These were used by the Washington Office to lay a steel template radial plot. The Vinylite sheets had triangulation stations, photograph centers and photogrammetric stations plotted when received by the compilation office.

Recovery notes for horizontal control stations in this area plus stations falling just outside the limits of the quadrangle were furnished. One set of contact prints with vertical control points, horizontal control points and a set of ratio prints, scale 1:8500, which were used in making the steel template radial plot, were also furnished. The ratio prints show horizontal control points, photogrammetric control points and principal points as used in the radial plot.

The following horizontal control stations fall inside the quadrangle. All were held.

Sub. Sta. Rumford 1941
Sub. Sta. Vine 1912
Sub. Sta. Log 1912
Sub. Sta. King William 1934

27. RADIAL PLOT

A radial plot was run at the Washington Office. See "Radial Plot Report", Project CS-318, December 1945. Filed in the ~~Division of~~ Photogrammetry Dec Report T-8613

28. DETAILING

As discussed in the Field Inspection Report, the field inspection was not complete for this quadrangle. The completion of the work will be done during the field edit.

The Zeiss wide angle multiplex equipment was used for plotting all of the topography for this quadrangle. It was compiled from sectional strips of four or five models each. The quadrangle comprised in the main, a total of eight such strips. The plotting scale was 1:8500.

In each strip the horizontal control points from the radial plot were held as near on as possible. The endeavor was made to obtain the best overall scale for the strip. Readily identifiable triangulation stations were, of course, given more weight than photogrammetric stations. Photogrammetric

points which were poorly identifiable were sometimes sacrificed when they would not hold with more positively identifiable points.

In preparation for contouring each model was horizontalized using the prerequisitioned vertical control stations furnished by the field party. There were at least four vertical points available for each model except where a model contained a considerable water area. In these cases it was necessary to level at the water's edge.

All plotting of detail was done with the aid of the available field inspection. During the field edit the manuscript is subject to corrections, additions and deletions.

29. SUPPLEMENTAL DATA:

None

30. MEAN HIGH-WATER LINE:

The Mean High-Water Line was plotted with the multiplex equipment. No correction was made for time of tide for this was too small to be discernible. The Field inspection data served as a guide to the compilers interpretation of the Mean High-Water Line.

31. LOW-WATER AND SHOAL LINES:

Data pertaining to low-water and shoal lines were not furnished by the field inspection party. As these were not readily discernible to the compiler, no attempt has been made at office interpretation.

32. DETAILS OFFSHORE FROM THE HIGH-WATER LINE:

Off the east bank of the Mataponi River at the north limit of the quadrangle, there appear probable obstructions which should be investigated during the field edit.

33. WHARVES AND SHORE LINE STRUCTURES:

Numerous piers, inspected in the field and visible on the photographs, have been shown on the map manuscript.

34. LANDMARKS AND AIDS TO NAVIGATION:

See paragraph No. 11 of the Field Inspection Report.

35. HYDROGRAPHIC CONTROL:

None has been plotted with the multiplex equipment.

36. LANDING FIELDS AND AERONAUTICAL AIDS:

See paragraph No. 13 of the Field Inspection Report

37. DISCREPANCY OVERLAY:

A discrepancy overlay has been prepared to serve as an aid to the field edit party.

38. GEOGRAPHIC NAMES:

A special report by Mr. Harland R. Cravat was written on geographic names. (See paragraph 18). A copy of this report was not furnished the compilation office. Copy filed in Geographic Names Section of Division of Charts

40. JUNCTIONS:

Junction should be satisfactory with T-8613 to the north as tie-ins were made on the multiplex strips during compilation.

The junctions on the south with T-8610 and on the west with T-8612 are satisfactory as these junctions were plotted across with the multiplex.

To the east T-8348 has been compiled with the 9-lens plotter. As this was in the process of compilation at the same time as T-8611, satisfactory junction could not be made. In order to facilitate the making of satisfactory junction, a strip of topography at the junction has been transferred to the Discrepancy Overlay from an ozalid of T-8348. The topography on T-8348 was extended beyond the limits of the quadrangle and into the limits of T-8611. This will be very helpful to the making of final junction.

44. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES:

Comparison was made with the U. S. Geological Survey, King William, 15 minute quadrangle, surveyed in 1917-18 and published at 1:62,500 scale. The topography was in poor agreement with the exception of roads, which,in general,was good.

45. COMPARISON WITH NAUTICAL CHARTS:

Comparison was made with U. S. Coast and Geodetic Survey Chart No. 504, Scale of 1:40,000 published March 1936, re-issued May 1939.

Along the Mattaponi River the agreement is only fair. Many of the differences in the location of the shoreline may be the result of natural changes. Numerous piers have since been built which do not appear on Chart No. 504.

45. COMPARISON WITH NAUTICAL CHARTS: (Continued)

Along the Pamunkey River agreement is, in general, good.

Respectfully submitted:
October 3, 1946

Henry P. Eichert
Photogrammetrist

Map manuscript, discrepancy overlay and wood overlay reviewed by:

Stanley W. Trow
Cartographer

Compilation of map manuscript supervised by:

Stanley W. Trow
Cartographer

Approved and Forwarded
9 October 1946

William F. Deane
Lieutenant, C&G Survey
Officer in Charge
Baltimore Photogrammetric Office

ADDENDA TO T-8611

38. GEOGRAPHIC NAMES:

A special report by Mr. Harland R. Cravat was received by the compilation office 16 October 1946. All names furnished in this report have been shown on the map manuscript. Copy filed in General Files of Division of Photogrammetry

40. JUNCTIONS:

The junction with map manuscript for Survey No. T-8348 to the east was made. Planimetry and most of the contours are in agreement. In cases where contours could not be junctioned they were carried into Survey No. T-8348 to a point where they were in agreement. This method was successful except the area just north of Pamunkey River, where the field edit party will have to check and join the contours as shown on the discrepancy overlay.

Respectfully submitted;
22 October 1946

Stanley W. Trow

Stanley W. Trow
Cartographer

Approved:
22 October 1946

William F. Deane

William F. Deane,
Lieutenant, C. & G. Survey,
Officer-in-Charge,
Baltimore Photogrammetric Office

R ELD EDIT REPORT
T-8611
King William Quadrangle
(37-37.5 / 77-00 / 7.5)
Project CS-318
R. J. Sipe, Chief of Party

The field edit of this quadrangle was completed in the period 9 May to 21 May 1947, by I. Y. Fitzgerald, Photogrammetric Aid. All work was done in accordance with the Director's Field Edit Instructions, dated 24 August 1945 and Field Edit Instructions-Supplement 1, dated 4 February 1946.

46. METHODS:

All delineated data such as roads, structures, and drainage were checked by riding or walking over the roads and trails.

The relief as depicted by the contours was observed closely while examining other delineated data. In areas where the contours seemed to give a false or incorrect representation of the relief, the plane table was used to check them.

Deletions and some additions and corrections were noted directly on a copy of the map manuscript. Some additions and corrections were noted on the photographs and a reference to the appropriate photograph made on the copy of the map manuscript.

The uses of the various colored inks were noted on the copy of the map manuscript.

47. ADEQUACY OF THE COMPILATION:

With due consideration given to the amount of field inspection made prior to office compilation, the compilation appeared to be very adequate and complete. Some roads and obscure buildings were, of course, omitted during office compilation.

48. ACCURACY TEST:

One vertical accuracy test was made, running between U.S.C.& G.S. BM D-292 1945 along Route 632 to U.S.C.& G.S. BM C-292 1945. Closure was 0.80' low. The results are as follows:

48. ACCURACY TEST (Cont'd)

18 Points tested
1 Point in error more than ½ contour interval
0 Point in error more than a full contour interval
94.5% of all points tested were within ½ contour interval

Note: See Vertical Accuracy Test, Review Report. No horizontal displacement has been assumed in arriving at the above results.

6. CONTOURS AND DRAINAGE:

On the whole the contours and drainage appeared adequate and complete.

The contour junction between T-8611 and T-8348 along the Northern section of the quadrangle was made. See Field Edit Report T-8613 (Northern Portion) for contour junction of T-8611 and T-8613.

9. WHARVES AND SHORELINE STRUCTURES:

A submerged cable crossing just above the drawbridge at Walkerton was added to the manuscript.

The four tanks shown as ELEV. were found to be fuel storage tanks of the upright type and are not elevated tanks at all.

14. ROAD CLASSIFICATION:

Roads were classified in accordance with Photogrammetry Instructions No. 10, Road Classification, dated 14 April 1947.

15. BRIDGES:

The clearances of the swing draw bridge over the Mattaponi River at Walkerton were measured in accordance with Photogrammetry Instructions No. 13, Bridge Clearances, dated 23 April 1947. The clearances are as follows:

Hor. Clearance .....52.0 ft.
Vertical Cl.(above est. MHW) ..... 7.0 ft.

16. BUILDINGS AND STRUCTURES:

New structures were added where necessary. Obscure buildings which were not delineated by the field inspection were added to the map manuscript. Many buildings shown on the map manuscript were deleted.

16. BUILDINGS AND STRUCTURES (Cont'd)

All power lines shown were deleted. They are all for local distribution. In the main, they follow highways and are not a landmark feature as would be the case if they were cross country trunk lines.

17. BOUNDARY MONUMENTS AND LINES:

The boundary line between King and Queen and King William Counties along the Mattaponi River was investigated and found to be in error as shown on the U.S.G.S. quadrangle. The correct boundary according to all available information is as shown by field edit on the double weight manuscript print. This boundary line follows the main, or, as known locally, the big channel of the Mattaponi River.

The boundary between West Point and Acquinton Magisterial Districts was also ~~xx~~ investigated. This boundary was found to be correct as shown on the map manuscript.

The boundary is an imaginary line from a point at the mouth of Pollards Creek (in T-8348) and the boundary between King and Queen and King William Counties to the intersection of Virginia Route 30 and Route 633; thence, along Route 633 to its junction with Route 621; thence, along Route 621 to the Southern limit of the quadrangle.

The preceding information was furnished by the Clerk of Court, King William County, Mr. B. C. Garrett, King William Court House, Virginia.

A change in the boundary between Newtown and Stevensville Magisterial Districts was made in 1944 according to the following Record of the Court, King and Queen County:

RE-ARRANGEMENT OF NEWTOWN AND STEVENSVILLE MAGISTERIAL DISTRICTS

This cause came on this day to be heard upon the petition of fifty qualified voters of Newtown and Stevensville Matisterial Districts, in King and Queen County, asking for a re-arrangement of the said districts, and it appearing to the court that a copy of the said petition has been previously posted 30 days at the Court House of said County and at each voting place in the said districts to affected by the proposed change, and good cause having been shown for the proposed changes in the arrangements of the said Newtown and Stevensville Magisterial Districts, the Court doth order that the Newtown Magisterial District in said County be arranged as to embrace and include all of that portion of land lying and being in the village of Walkerton, Virginia, which is bounded as follows:

Beginning at the Mill Race on the Walkerton Mill Dam and running in an Easterly direction down the Mill Creek as it meanders to the Mattaponi River, thence up the said river in a Westerly direction, along the lands of W. S. Reynolds, C. C. Caldwell, L. S. Wilson, W. L. M-George, J. D. Whitehell and the Mattaponi Pickling Company to the public steam boat wharf now occupies by the Virginia Steam Ship Company, and thence along the public road leading from the steam boat wharf, through the Village of Walkerton to said Mill Race, the point at the beginning.

And the Court doth further order that a copy of this order be recorded by the clerk of this court in the current deed book of this court, and the said clerk transmit a like copy to the Secretary of the Commonwealth.

18. GEOGRAPHIC NAMES:

Change Walkerton Branch to Clark's Swamp. Move Walkerton Branch to next stream West. (See Field Edit Report T-8613, Item 18). Add Taylor's Creek and Walkerton Mill Pond. R14 ✓

References:

Wesley D. Braine, Farmer - Merchant
Walkerton, Va. Resident - 40 years

W. B. Clark, Farmer
Walkerton, Va. Resident - 60 years

49. MR. B.C. Garrett, clerk of Court, King William Co., King William Court House, P.O., Virginia has expressed his willingness to review one of the first proofs of this quadrangle.

Submitted
21 May 1947

Isaiah Y. Fitzgerald
Isaiah Y. Fitzgerald,
Cartographer

Division of Photogrammetry
Review Report of
Topographic Map Manuscript T-8611

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

26. Control.

A narrow unchecked scheme of third order triangulation extends up the Mattaponi River. In Project 289W considerable difficulty was encountered by the field party in the recovery of stations in this scheme. Instructions for Project 318 eliminated the systematic recovery of these stations and only sufficient stations needed to control the radial plot were recovered. The field party reported these stations to be in excellent condition.

In order to provide additional horizontal control for the area, the reviewer has plotted three triangulation stations, viz. Goffners, 1912; Syc, 1912; and North 1912 on the map manuscript. They were selected as follows:

A. Monumented station

B. Plotted position in agreement with detail

C. No information to indicate that the station would be disturbed

D. Proximity of adjacent stations

28. Detailing

All additions and corrections made by the reviewer, have been shown in red ink on the map manuscript. In addition to the routine review corrections the following changes were made:

A. Multiplex spot elevations removed

B. Obsolete bridge classifications removed

C. Denominations in church names removed

D. Doubtful bench mark locations ~~classified~~ Clarified

E. Woods re-classified in accordance with Photogrammetry Instructions No. 15, dated June 16, 1947.

J/R

44. Comparison with Existing Topographic Surveys

Comparison was made with the following (A) Previous Surveys and (B) Quadrangle and the planimetry and topography in all common areas is superseded by T-8611.

A. Previous Surveys

T-3256	1:20,000	1912
T-3283	1:20,000	1912-13

The shoreline varies as much as 80 meters, probably due to tidal action.

B. Quadrangle

U.S.G.S. King William, Va. 15' 1:62,500 1917-18

45. Comparison with Nautical Charts

504 1:40,000 March 1936 Re-issue January 1947

Planimetric and shoreline details on the chart are superseded by those on T-8611 in all areas common to both. This map manuscript has not been applied to nautical charts.

47. Adequacy of Compilation

This compilation is believed to be adequate and complete. It meets all national map accuracy requirements.

48. Accuracy Tests

A. Vertical

All points tested were within a tolerance of one-half contour interval of error or better. A Summary and Abstract of Vertical Accuracy Test is attached to this report.

B. Horizontal

A U. S. Geological Survey 1916 transit traverse, adjusted to the North American 1927 datum, was used to make a horizontal accuracy investigation.

Twelve of these described points, verified as identical points, were plotted on the map manuscript by geographic coordinates. No attempt was made to verify indefinite points such as Y road intersections.

The results of the accuracy tests were well within the limits for national standard map accuracy requirements. A Tabulation of Horizontal Accuracy Test is attached to this report.

Reviewed by:

Harland R. Cravat
Photogrammetrist

Reviewed under direction of:

S. V. Griffith
Chief, Review Section

APPROVED BY:

B.J. Jones 12/4.7
Technical Assistant to the
Chief, Div. of Photogrammetry

Chief, Nautical Chart Br.
Division of Charts

K.T. Adams
Chief, Div. of Photogrammetry

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

GEOGRAPHIC NAMES

Survey No. T-8611

KING WILLIAM quadrangle

1 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	
Virginia									USGS	1
King and Queen County										2
Stevensville District										3
Newtown District										4
King William County										5
West Point District		(names of districts checked with Census map of minor political subdivisions)								6
Acquinton District										7
Hanover County										8
Henry District										9
New Kent County										10
Black Creek District										11
Mattaponi River									USGS	12
Pamunkey River									*	
Va. No. 30 Pamunkey Trail										13
Harrison Creek	(name added)									14
Mallory Creek										15
Jacks Creek										16
Mt. Olive School										17
Mt. Olive Baptist Church										
Falls										18
Montague Creek									USGS	19
Cheriocke	(not Cherycock)									20
Broad Creek										21
Clapper Creek										22
Grimes Landing										23
Piping Tree Ferry										24
Liberty Church										25
Baptist Liberty Church	(old quadrangle shows two church symbols here									
Acquinton Creek										26
Whites Shop	(not White Shop)									27

M 234

GEOGRAPHIC NAMES

Survey No. T-8611

2 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	K	
King William		(village)								1
King William Lookout Tower										2
St. James Presbyterian Church										3
King William Training School										4
Third Union Baptist Church										5
Romford		(note change in position)								6
Four Forks Inn										7
~~Bethel~~ Gethsemane Church										8
Indian View School										9
Indian View Baptist Church										10
Roanes Wharf										11
Whitehall										12
Whitebank										13
Locust Grove										14
Peavine Island										15
Walkerton										16
Mizpah Methodist Church										17
Walkerton Branch		(at new position)								18
Walkerton Millpond		(not Mill Pond)								19
Clark Swamp		(not Clark's)								20
Taylor Creek		(not Taylor's)								21
										22
										23
										24
										25
										26
										27

Names underlined is not approved
by L. Heck 7/22/47

M 234

TOPOGRAPHIC MAPPING

Summary & Abstract of Vertical Accuracy Test

Project No. 318 Quad. No. T 8611 Quad. Name King William
Method of Testing Planetable profile
Tested by I.Y.F. Date May 1947 Evaluated by H.R.C.
Contour interval 2.0 ft. 0.6 M.M. allowable shift at 1:20,000
~~map or~~ manuscript scale.

18 Total number of points tested
100 % of points within ½ contour interval or better
18 Test points correct within ½ contour interval
0 Test points in error between ½ and full contour interval
0 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
59	59	0	0	Steep					
50	52	2	1	Flat					
55	58	3	0	Smooth					
61	61	0	0	"					
90	90	0	0	Flat					
101	99	2	2	"					
106	99	7	7	"					
98	97	1	1	"					
83	79	4	0	Steep					
41	35	6	6	stream bottom					
51	51	0	0	steep					
73	77	4	0	"					
90	85	5	3	Smooth					
98	95	3	1	"					
99	99	0	0	Flat					
100	102	2	2	"					
92	88	4	0	Steep					
102	102	0	0	Steep					

TABULATION

OF

HORIZONTAL ACCURACY TEST

Project CS 318 Quad. T 8611 Test applied by Hynson

Scale of manuscript 1/20,000 Publication Scale 1/24,000

Allowable horizontal displacement at manuscript scale 0.6 mm

Method of testing U.S. Geological Survey, 3rd order Transit Traverse

Description of Point	Latitude ° ' "	Longitude ° ' "	Displacement M.M.	Displacement Inch	Displacement Dir. *	REMARKS
T-Rd E	37 39 39.60	77-00-00.93	0.51	.020	↗	
Fork of roads	37 40 05.28	77 00 26.73	0.28	.011	→	
T Rd SW at Blacksmith Shop	37 41 38.89	77 01 58.49	0.39	.015	→	
T-Rd N at C.H. King William	37-41-13.22	77 00 50.59	0.29	.011	↗	
Fork at Road E.	37 42 52.70	77 01 52.19	0.34	.013	↑	
Fork at Rd SE	37 44 12.99	77 00 22.57	0.42	.016	←	
T Rd North	37 42 14.78	77 07 12.72	0	0		
center of grass Triangle at Rd Fk	37 43 19.72	77 06 50.61	0	0		
T Rd North	37 43 16.78	77 04 59.54	0	0		
T Rd North at Terry Brooks Store	37 43 02.31	77 03 50.55	0	0		

* Arrows are from plotted positions to detailed position.

NAUTICAL CHARTS BRANCH

SURVEY NO. 8611

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
10-31-51	504	James Ball	~~Before~~ After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2188-1

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.