

8609

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
Field No. Quinton T-8609 Office No. CS-318

LOCALITY

State Virginia
General locality 15 ± Miles East of Richmond
Locality 25 ± Miles West of West Point, Va.

1946

CHIEF OF PARTY

William F. Deane

LIBRARY & ARCHIVES

DATE Dec 29 - 1947

8609

DATA RECORD

T- 8609

Quadrangle (II): Quinton, 7½ minute

Project No. (II): CS-318

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

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

Instructions dated (II III): March 10, 1945

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

Completed survey received in office: JAN. 2, 1947

Reported to Nautical Chart Section: JAN. 5, 1947

Reviewed: Dec. 1947 Applied to chart No. Date:

Redrafting Completed:

Registered: ~~Final~~ ^{Final} Dec. 10, 1947 Published:Compilation Scale: 1:20,000 (Multiplex) Published Scale: 1:24,000
 Scale 1:8500

Scale Factor (III): 1.000

Geographic Datum (III): N.A. 1927

Datum Plane (III): Mean Sea Level

Reference Station (III): LOWER HENRICO LOOKOUT TOWER, 1941

Lat.: 37° 30' 37.603"

Long.: 77° 14' 20.551"

Adjusted
~~Final~~

State Plane Coordinates (VI): Virginia South Zone

X = 2,365,743.82

Y = 431,009.35

Military Grid Zone (VI)

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
45-C-2016 to 2024	3/23/45		1:20,000	
" 2044 to 2052	3/25/45		"	
" 2071 to 2079	3/25/45		"	
" 2088 to 2096	3/25/45		"	
9 lens, 18776	12-14-46		"	
18777	12-14-46		"	
18778	12-14-46		"	

Tide from (III): No tide water in this quadrangle

Mean Range:

Spring Range:

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

Field Inspection by: T.W. Merriken & R.R. Kim
H.R. Cravat

date: Spring 1945

Field Edit by: I.Y. FITZGERALD

date: June 1947

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

Projection and Grids ruled by (III) S. Rose

date: May 1945

" " " checked by: S. Rose

date: May 1945

Control plotted by: E. L. Bauman

date: Sept. 1946

Control checked by: H.P. Eichert

date: Sept. 1946

Radial Plot by: G.B. Willey

date: Dec. 1945

Detailed by: M.E. Richey, & A.K. Heywood
Reductions traced by: Henry P. Eichert

date: May-June 1946

date: Oct.-Dec. 1946

Reviewed in compilation office by:
S.W. Trow

date: Dec. 1946

Elevations on ^{Map Manuscript} ~~Field Edit Sheet~~
checked by: H.R. Cravat

date: Dec. 1947

STATISTICS (III)

Land Area (Sq. Statute Miles): 59.14

Shoreline (More than 200 meters to opposite shore): None

Shoreline (Less than 200 meters to opposite shore): None

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 T8609 is $6^{\circ} 15' W$.

Statement to Accompany Descriptive Report T-8609

1. This summary of survey methods used and the method of handling T-8609 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 assembly 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 1:20,000 scale manuscript in accordance with the field edit survey.
3. T-860⁹ 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-8609 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 not corrected after field edit.

(3) Field Edit Sheet.

(b) Filed in the Coast and Geodetic Survey Archives:

The descriptive report, with a 1:20,000 scale cloth mounted photographic print of manuscript is being permanently registered. When T-8609 is published, a cloth backed copy of the published map will also be registered.



Harland R. Cravat,
Cartographer (Photogrammetrist)
Dec. 10, 1947

FIELD INSPECTION REPORT

T-8609, Quinton Quadrangle, (37 30 / 77 07.5 / 7.5)

Project CS-318

Harland R. Cravat, Chief of Party

I. Description of the Area.

This is a seven and one half minute quadrangle. It extends about ~~5.5~~^{7.5} miles north of and ~~2.0~~^{1.8} miles south of the junction of highways #60 and #33 at Bottom's Bridge. The ~~eastern~~ ^{Western} boundary is about 0.5 miles west of Meadow, Va. It is about 15 miles east of Richmond, Va., 25 miles west of West Point, Va., and about 2 miles north of the Chesapeake and Ohio Railroad to Williamsburg, Va;.

The drainage goes to the Pamunkey and Chickahominy Rivers. The drains are wide flat bottomed streams with a great deal of swamp lands in various spots.

The area is heavily wooded in places with both hardwoods and softwoods. Pine is cut extensively for pulpwood and lumber. Cultivated fields dot the whole area. The chief crops are corn and soya beans, which are used for livestock feed.

A great deal of history took place in this area. Lafayette and Cornwallis' Armies both marched through the area along the Williamsburg road in 1781. McClellans Army came through here in 1862 advancing on Richmond in pursuit of the Confederates.

2. Completeness of Field Inspection:

Field ^{an} inspection was done in conjunction with 4th order leveling by Messrs. Thomas W. Merriken Jr., Engineering Aid and Robert R. Kem, Photogrammetric Aid.

It is felt the inspection is neither adequate nor complete and as an aid to the field edit party, the phases of field inspection are broken down under two headings; "Adequate and Inadequate". It is felt the items mentioned under inadequate could be completed efficiently and economically at the time of field edit.

"Adequate"

Roads

All main roads have been classified as per The Director's Instructions dated 30 June '45 and road numbers or names have been included where they exist.

Woods

Classified as per The Director's Instructions dated 30 June '45.

Bridges

There are no bridges over navigable waterways.

Public Buildings

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

Obscure buildings

Obscure buildings were circled and circled in red ink on the photographs.

Outbuildings and buildings past ^{their} ~~then~~ useful life have been deleted.

"Inadequate"

Boundaries

The county boundaries have been drawn on the photos in red ink but the precinct names and boundaries are complete only for New Kent County. The only district positively identified was Black Creek District in New Kent County.

Power Lines

At the time of field inspection the power lines were adequate, but new lines were started soon after the war's end and are still being laid.

Telephones Lines

At the time of field inspection the telephone lines were adequate, but new lines were started soon after the war's end and are still being laid.

3. Interpretation of the Photographs

Open fields appear on the photos from a smooth light grey to a smooth dark grey tone. The wooded areas appear from a mottled dark grey to a mottled black tone. The mottled dark grey is hardwood and the mottled black is mostly pine. Mixed stands appear as a combination of the two tones. Areas recently logged can be distinguished by white thread-like lines interwoven in the mottled grey and black tones. Generally hardwoods are found in low lands and pine is on higher ground. Small white blotches in wooded areas are usually sawdust piles.

4. Horizontal Control

The work consisted of ^{identifying} ~~locating~~ the existing horizontal control and the establishing of new control by 3rd order traverse methods. The work was done early in the spring of 1945, by Mr. Harland R. Cravat, under the direction of Lt. Dale S. Sturmer, U. S. Coast and Geodetic Survey.

Lower Henrico Fire Lookout Tower was the only existing triangulation station which fell within the limits of the quadrangle. Measurements were taken from points of detail and arcs were swung to prick the triangulation point. A stereoscopic examination later indicated it could be pricked direct.

Cold Harbor Triangulation Station which was west of the area was pricked by the substitute station method.

3rd Order Traverse

About one linear mile of 3rd order open ended traverse was completed; starting at Triangulation Station Cold Harbor and run eastward to the western limits of the quad.

Angle measurements were made with a 7-inch White Theodolite. Three D and R angles were measured at each hub with a horizon closure of less than 10 seconds. The horizontal distances were measured with a 100-foot steel tape and check measurements with a 40-meter steel tape.

The azimuth at the terminal point was checked by two complete sets of sun observations.

The field party computed the traverse and the sun azimuths. The sun azimuth checked the azimuth of the traverse within 3rd order limits.

No stations were monumented along the traverse and either a hub in the traverse or a substitute station was pricked for photographic control.

U.S.G.S. - P.T.S.

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.

5. Vertical Control

All vertical control appears on the photographs in blue ink. Vertical control is on odd numbered photographs with the exception of U.S.G.S. BM-57-1917. It is pricked on photo 2078.

Recovery

BM recovery was done by Messrs. Thomas W. Merriken, Jr., Engineering Aid and Robert R. Kim, Photogrammetric Aid. It is suggested that U.S.G.S. BM 152 (1917) be searched for by the field edit party.

The following BM's were pricked on appropriate photographs and recovery cards submitted.

U.S.C. & G.S.

Previous Work

T 274 1942
U 274 1942
V 274 1942
W 274 1942
X 274 1942
B 49 1934
C 49 1934
D 49 1934
U 263 1942
V 263 1942
W 263 1942
X 263 1942
~~X 263 1942~~
Y 263 1942
Z 263 1942

New Work

J 292 1945
P 292 1945
Q 292 1945
R 292 1945
S 292 1945
T 292 1945
U 292 1945
V 292 1945
W 292 1945
X 292 1945
R 293 1945
S 293 1945

U.S.G.S.

Pricked and Recovered

126 VA 1917-125.700

Cold Harbor

86 ✓ 1917

177 ✓ 1917

151 PTS 45 ✓ 1916-150.96

155 PTS 46 ✓ 1916-135.42

Not Recovered

152 V1 1917

3rd Order Levels

12.4 linear miles of third order leveling were completed by Mr. Alfred R. Knaack between the dates 3-25-45 and 3-30-45. The methods used and character of marks are as prescribed in Special Publication No. 140.

4th Order Levels

About 63 linear miles of fourth order leveling were completed by Messrs. Thomas W. Merriken, Jr., Engineering Aid, and Robert R. Kin, Photogrammetric Aid, between the dates 9-12-45 and 10-23-45.

Elevations were carried by trigonometric methods, using a 7-inch Berger Theodolite equipped with stadia hairs and Simmons-Adams Leveling Rods. Elevation computations were made with a stadia slide rule to the nearest 1/10 of a foot. Trigonometric loops longer than one mile were closed on either a previously determined elevation or an existing bench mark. Other spur lines less than a mile were double rodded. (Double rodded is where the foot scale was read on the front of the rod and a meter scale was read on the back. At the terminal point the spread between the feet and meters was completed. If the spread exceeded one foot the spur 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 photos near their respective points.

The code letters QU prefix all spot elevations and the following code was used to distinguish the closed elevations and the unclosed elevations.

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

Elevations underscored by a dashed line indicate that the loop is a double rodded line.

Elevations underscored by a solid line indicate that the loop is closed on a previously determined elevation or an existing bench mark.

There were no fourth order loops known to exceed the required limits of accuracy.

Submitted with the photos is a layout showing the approximate position of the spot elevations. Also on the fly leaf of each level volume is the following information; loop (spot elevation), page, closure, field notes checked by, adjustment checked by, inked on photo no. 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.

While leveling the culverts and bridges were marked in red ink; the letters CU or BR were used and the symbol (X) indicates the crossing.

7. Mean High Water

Not applicable.

8. Low Water Line

Not applicable.

9. Wharves and Shoreline Structures

Not applicable.

10. Details Offshore from the High-Water Line

Not applicable.

11. Landmarks and Aids to Navigation

The Lower Henrico Forest Fire Lookout Tower, on route #60, 1/2 mile ~~west~~^{east} of the western boundary of the quadrangle, is the only prominent land mark. The tower is 100 feet high and the elevation at the base is 157.1 feet.

12. Hydrographic Control

Not applicable.

13. Landing Field and Aeronautical Aids

There are no landing fields within the limits of the quadrangle. The main roads, the Southern Railroad and the Lower Henrico Forest Fire Lookout Tower are all aids to aeronautical navigation in daytime 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

There are no bridges over navigable waterways.

16. Buildings and Structures

Obscure buildings have been pricked and circled in red ink.

Public buildings have been circled in red ink and the name of the building inked on the photo.

Outbuilding and buildings past their useful life have been deleted in green ink.

17. Boundary Monuments and Lines

The county boundaries were ^evaried^{if} in the field and inked on the photographs in red ink by Mr. Thomas W. Merriken, Jr., Engineering Aid. The precinct boundaries for New Kent County have been varied in the field and inked on the photographs in red ink by Mr. Thomas W. Merriken, Jr. It is felt the precinct boundaries for Hanover and Henrico Counties can be varified efficiently and economically at the time of field edit.

18. Geographic Names 814 ✓

Geographic names are the subject of a special report by Mr. Harland R. Cravat. Filed under Special Report - Geographic Names, Project 318 in general file of the Division of Photogrammetry, and in the Geographic Names Section, Division of Charts.

19. Notes for the Compilers

The photographs used for this quadrangle were segregated into two sets, even numbers for interior inspection and odd numbers for leveling, except for photo #2016. It is the only coverage for that area and had to be used for leveling and interior inspection. Also U.S.G.S. BM 57 (1917) is pricked on photo #2078.

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

See "boundaries" under Item #2.

The following photographs are being forwarded with the quadrangle:

2041-2050 incl.
2073-2081 incl.
2087-2095 incl.

Respectfully submitted,
January 1, 1946

Thomas W. Merriken, Jr.

Thomas W. Merriken, Jr.
Engineering Aid

Approved January 1, 1946 by

Harland R. Cravat

Harland R. Cravat
Photogrammetric Engineer

*Corrections in red made by Baltimore Photogrammetric Office
SWT.*

26. CONTROL:

A radial plot, using slotted, steel templates, was laid at the Washington Office on the vinylite work sheets used for the multiplex compilation. As received from the Washington Office, photograph centers and photo stations were furnished on the work sheets.

Recovery notes for horizontal control stations both within the limits of the quadrangle and just outside the limits, 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 the radial plot were also furnished. The ratio prints show horizontal control points, photo control points, and principal points as used in the radial plot.

There is only one horizontal control station, namely, LOWED HENRICO LOOKOUT TOWER, 1941, within the limits of this quadrangle.

27. RADIAL PLOT:

See "Radial Plot Report", Project CS-318, December 1945, for a description of the radial plot laid at the Washington Office.

(Filed in ~~the Division of Photogrammetry~~
~~General Staff~~ Desc Report T-8613)

28. DETAILING:

As discussed in the Field Inspection Report, the field inspection was not completed for this quadrangle. It is to be completed at the time of the field edit.

The Zeiss wide angle multiplex equipment was used for plotting 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 were held as near on as possible. An endeavor was made to obtain the best overall scale for the strip. Photo points from the radial line plot which were poorly identifiable were sometimes sacrificed when they would not hold with more positively identifiable points.

In preparation for the drawing of contours, each model was horizontalized using the prereditioned vertical control points furnished by the field party. There were at least four vertical points available for each model:

Plotting of detail was done with the aid of data supplied by the Field Inspection Party. All data such as road and woods classifications, public buildings, etc. were transferred to the map drawing from the field inspection photographs. During the field edit the map drawing is subject to corrections, additions and deletions.

* The 1:8500 scale multiplex sheets was reduced photographically and hand copied to the 1:20,000 copies.
BAG

29. SUPPLEMENTAL DATA:

None

Items 30-33 (inclusive) are not applicable as there are no navigable waters within the limits of this quadrangle.

34. LANDMARKS AND AIDS TO NAVIGATION:

See item No. 11 of the Field Inspection Report.

35. HYDROGRAPHIC CONTROL:

None

36. LANDING FIELDS AND AERONAUTICAL AIDS:

See item 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: 614 ✓

A special report on Geographic Names for quadrangles T-8609 to T-8613 (incl.), a copy of which was furnished the compilation office, was written by Mr. Harland R. Cravat. Filed as a Special Report on Geographic Names, Project 318, in General Files of the Division of Photogrammetry and in the Geographic Names Section, Division of Charts.
All names, namely, base-map names, new names, undisputed, disputed, and recommended names, were indicated on a 15 minute, King William, Va. quadrangle of the U.S. Geological Survey. All names except those not recommended have been shown on the map manuscript.

39. JUNCTIONS:

Satisfactory junction has been made on the north with T-8612 and to the east with T-8610.

Complete, satisfactory junction has not yet been made to the west with the U. S. Geological Survey, Seven Pines quadrangle, Scale of 1:31,680. In order to facilitate subsequent junction, a strip of the topography at the junction has been transferred from the Seven Pines quadrangle to the map drawing. Notes have also been added to the discrepancy overlay as an aid to the field edit party in checking junction points.

No junction has been made to the south.

40. HORIZONTAL ACCURACY:

The horizontal accuracy for points in this quadrangle should meet the requirements as established for the War Mapping projects.

41. VERTICAL ACCURACY:

It is believed that 90% of the contours are in error no more than one-half the contour interval.

44. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES:

By means of the vertical projector, the U.S.G.S. King William 15 minute quadrangle, scale 1:62,500, was enlarged to the scale of the map manuscript; permitting the making of a ready comparison.

The more important roads and the Southern Railroad were in good agreement. Drainage and contours, on the other hand, were in very poor agreement.

As there was disagreement in the location of the main branch of Chickahominy River, which traverses a wide swamp in this locality, there is considerable difference in the location of the Henrico County boundary line which follows the main branch.

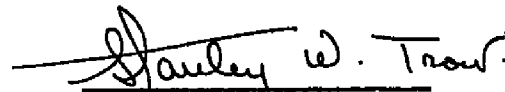
45. COMPARISON WITH NAUTICAL CHARTS:

There are no U.S.Coast and Geodetic Survey nautical charts of this area available for comparison.


Respectfully submitted
18 December 1946


Henry P. Eichert
Photogrammetrist


Map drawing and discrepancy
overlay reviewed by:


Stanley W. Trow
Cartographer

Compilation of map drawing
supervised by:


Stanley W. Trow
Cartographer

Approved and forwarded
2 January 1947


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

FIELD EDIT REPORT
T-9609
Quinton Quadrangle
(37.30.0 / 77°-07.5 / 7.5)
Project CS-318
Riley J. Sipe, Chief of Party

The field edit of this quadrangle was completed in the period 11 to 27 June 1947, by I. Y. Fitzgerald, Cartographer. 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. Other recent Instructions applicable to field edit were also followed as noted herein.

46. METHODS:

All delineated features such as roads, structures, woods lines, and drainage were checked while walking and/or riding over the roads and trails.

The relief as depicted by the contours was observed closely while checking other features. In areas where the contours did not appear to "fit the ground" the planetable was used to check and, if necessary, corrections were made. Some minor corrections were made visually.

Deletions and some additions were made directly on the field edit sheet. Some additions and corrections were noted on the photographs and a reference to the appropriate photograph made on the field edit sheet.

Buildings and changes in woods lines since photography were located by measurements from topographic details or by planetable methods.

The uses of the various colored inks were noted on the field edit sheet.

47. ADEQUACY OF THE COMPILATION:

With due consideration given to the field inspection completed prior to office compilation, the compilation appeared adequate and complete.

48. ACCURACY TESTS:

One vertical accuracy test was made. Starting on a third order BM and closing on a spot elevation. Vertical closure 1.3 ft. low. See Review Report for Accuracy Tests.

6. CONTOURS AND DRAINAGE:

The contours, with few minor exceptions, adequately depict the topography.

Drainage, on the whole, was adequate. Compiled perennial streams were, in a few instances, changed to intermittent.

14. ROAD CLASSIFICATION:

All roads were reclassified in accordance with Photogrammetry Instructions No. 10, Road Classification, dated 14 April 1947.

Construction is under way on a project making U. S. Route 60 a four lane road instead of the existing two lane. In conjunction with this construction a channel change of the Chickahominy River is being made

Blueprints of the Plans, Profiles and cross sections of this work were secured from the Virginia Department of Highways and are submitted herewith. Four points of the highway survey were located on the field edit sheet by planetable methods.

Profile and cross section elevations are based upon U.S.G.S. BM 56, 1917. This BM was reset in 1929. Reset elevation is 57.420. Elevation used by Virginia Department of Highways 57.29. This places the Highway Departments datum plane 0.13 ft. below Mean Sea Level.

15. BRIDGES:

There are no bridges over navigable water in this quadrangle. However, the channel of the Chickahominy River is being changed by highway construction referred to in Item 14. Blueprints submitted of this construction are considered adequate to make this change without additional field work.

16. BUILDINGS AND STRUCTURES:

All out buildings were deleted on the field edit sheets. In many cases, out buildings were compiled instead of the correct buildings to be shown. New structures were added to the field edit sheet.

1.- The roads shown by the reviewer were only those which existed at the time of Field Edit. Unforeseen problems often arise which completely change the plans and blueprints of proposed new construction.

Eravat

17. BOUNDARY MONUMENTS AND LINES:

The boundary line between Hanover and New Kent Counties was found to be in error.

The records of the Clerks of Court, Hanover and New Kent Counties were searched for any information on this line. The following was found:

At the direction of two commissions, one from New Kent County and one from Hanover County, each appointed by the Judge of the Circuit Court of its respective county, this line was re-surveyed 3 September 1907 to 24 April 1908, by O. M. Chandler, Surveyor of New Kent County. The results of this survey were accepted by the Court of each County and ordered to be recorded by the respective Clerks of Court. This survey was ordered to become record according to law by the Court of Hanover County 22 September 1908 and recorded in Plat Book 4, page 195 in the Clerk's office at Hanover Court House, Virginia.

From the King William, Hanover and New Kent Counties line in the channel of the Pamunkey River opposite the mouth of Matadequin Creek, up this said creek 124.56 chains to its confluence with Beaver Branch; thence up Beaver Branch 54.75 chains to the crossing of a road (known locally as the Three Devil Jump Road, now abandoned) thence along this road to McMinn's Corner; thence west along the Tunstall Road to a stone. (A distance of $1\frac{1}{2}$ miles $14\frac{1}{2}$ rods to this last stone). Thence, along the south side of the aforementioned road to a stone; (A total distance of 3 miles $28\frac{1}{2}$ rods from Beaver Branch to this point). Thence S 49° W 248 chains to a stone; thence, S $24\frac{1}{4}$ W 18.8 chains to a stone; thence S 42° W 62 chains to a stone; thence S 75° W $58\frac{1}{2}$ chains to a stone on a branch and on the north side of public road to Dispatch; thence, with this branch to the Chickahominy River. (This branch is referred to as a swamp in the Hanover County Records, and a branch in New Kent County records.)

A search was made for each of the monuments established on this boundary by the survey of 1908. Three of them were not recovered. All monuments recovered were identified on field photographs. Forms 524 and M-2226-12 were submitted for those monuments recovered.

18. GEOGRAPHIC NAMES: 94

It is recommended the following names be deleted as they are now obsolete:

HOLT This was the name of a station on the Richmond, Rappahannock River R.R. This railroad was abandoned 33 years ago. The name is no longer used.

GEOGRAPHIC NAMES, (Cont'd)

References:

J. P. Black, Merchant - Resident 50 years
Quinton, Va.

J. A. Williams, Rural Carrier - Resident 60 years
Quinton, Va.

J. D. West, Merchant - Resident 50 years
R.F.D. #1
Tunstall, Va.

✓ CORPAX This name is spelled incorrectly on the manuscript. The correct spelling is ORAPAX. But this name is now obsolete. Several years ago there was a railroad switch station known as Dispatch. The switch house was removed, leaving a siding. This siding came to be known as Orapax as it was a passenger stop for Camp Orapax. Later, the siding was removed, the railroad discontinued passenger traffic. The name Orapax is no longer used.

References:

H. L. Peace, Farmer - Resident 40 years
R.F.D. #3
Richmond, Va.

J. A. Williams, Rural Carrier - Resident 60 years
Quinton, Va.

J. P. Black, Merchant - Resident 50 years
Quinton, Va.

✓ FLANAGAN'S MILL is correct. Parsley's Grist Mill should be deleted. Flanagan was the builder and original owner of this mill. The mill is known as Flanagan's Mill.

References:

H. L. Peace, Farmer - Resident 40 years
R.F.D. #3
Richmond, Va.

J. S. Williams, Rural Carrier - Resident 60 years
Quinton, Va.

J. P. Black, Merchant - Resident 50 years
Quinton, Va.

49. REVIEW OF THE FIRST PROOF:

Mr. J. A. Williams, Quinton, Va., has consented to review one of the first proofs of this quadrangle. Mr. Williams is a rural carrier. He is thoroughly familiar with the entire region as well as the area of this quadrangle.

Submitted:
9 July 1947

I. Y. Fitzgerald per. *TRP*
Isaiah Y. Fitzgerald,
Cartographer

Division of Photogrammetry
Review Report of
Topographic Map Manuscript T-8609

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

17. Boundary Monuments and Lines:

The Hanover, New Kent County line was delineated from the records of the respective county courts and monuments which were recovered and identified on photographs by the field edit party. Geographic positions for the recovered monuments were determined by photogrammetric methods and submitted on form No. 524.

28. Detailing:

All additions and corrections, made by the reviewers have been shown in red ink on the 1:20,000 scale map manuscript; no corrections were made on the original multiplex manuscripts.

In addition to the routine review corrections, the following changes were made:

- A Multiplex spot elevations removed
- B Denomination in church names removed
- C Doubtful bench mark locations clarified
- D Woods reclassified in accordance with
Photogrammetry Instructions No. 15, dated
June 16, 1947.

34. Landmarks and Aids to Navigation:

Lower Henrico Forest Fire Lookout Tower has been submitted as a landmark for Aeronautical Charts on Form No. 567.

39. Junctions:

As mentioned in the compilation report a satisfactory junction to the west with the U. S. Geological Survey, Seven Pines Quadrangle, scale of 1:31,680 was not made.

Using new photographs the Washington office laid an independent plot along this junction and detailed an area showing main planimetric details extending one minute inside the Seven Pines Quadrangle. The new radial plot verified the original U. S. Coast and Geodetic Survey work on T-8609, as being satisfactory and in all but a few instances a satisfactory junction

with the planimetry on the Seven Pines Quadrangle was made between longitude $77^{\circ}15'$ and $77^{\circ}16'$.

The contours were junctioned in the field by planetable methods. A satisfactory contour junction was made on the map manuscript about one inch west of longitude $77^{\circ}15'$. In all cases the contours have been extended into the Seven Pines Quadrangle until agreement was reached.

44. Comparison with Existing Topographic Surveys:

Comparison was made with both (A) Previous Surveys and (B) Quadrangle. The planimetry and topography in all common areas is superseded by T-8609.

A. Previous Surveys

3383 1:20,000 1912-1913

(Less than one square mile of common area)

B. U.S.G.S. King Williams, Va. 15' 1:62,500 1917-1918

45. Comparison with Nautical Charts

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

(No common area detailed on chart)

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

98% of 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.

Fifteen 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 test were well within the limits of national map accuracy requirements. A tabulation of the horizontal accuracy test is attached to this report.

Reviewed by

Harland R. Cravat
Harland R. Cravat
Cartographer (Photogrammetrist)

Reviewed under direction of:

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

Approved by

B. J. Jones 12/47
Technical Asst. to the
Chief, Div. of Photogrammetry

J. P. Steadman
Chief, Nautical Chart Branch
Div. of Charts

K. T. Adams
Chief Division of Photogrammetry

C. H. Green
Chief, Division of Coastal
Surveys

GEOGRAPHIC NAMES

Survey No. T-8609

T-8609

2 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
<u>Black Creek</u>									1
<u>Camp Kent Wood</u>									2
<u>Higgins Swamp</u>									3
<u>Bottoms Bridge</u>									4
<u>Boar Swamp</u>									5
<u>White Oak Road</u>									6
<u>Antioch School</u>									7
<u>Lower Henrico Lookout Tower</u>									8
<u>Mt. Zion Church</u>									9
<u>Bear Swamp School</u>									10
<u>Antioch Church</u>									11
<u>Meadow Road</u>									12
<u>Meadow</u>									13
<u>Black Creek Church</u>									14
<u>Parsleys Mill Pond</u>									15
<u>Parsleys Mill</u>									16
<u>Woodlawn</u>									17
<u>Parsleys Creek</u>									18
<u>Westwood</u>									19
<u>Parsleys Store</u>									(not Parsley's) 20
<u>Flanagans Mill</u>									(not Flanagan's) 21
<u>Metadequin Creek</u>								USGB	22
<u>Hopewell Baptist Church</u>									23
<u>Prospect Church</u>									24
									Names underlined in red are approved 12/1/47 L. Heck 25
									26
									27

GEOGRAPHIC NAMES

Survey No. T-8609

QUINTON, Va, 7 1/2' quadrangle

1	Name on Survey	Source										
		A	B	C	D	E	F	G	H	K		
	<u>Virginia</u>										USGB	1
	<u>Henrico County</u>											2
	<u>Fairfield District</u>											3
	<u>New Kent County</u>											4
	<u>St. Peters District</u>											5
	<u>Black Creek District</u>											6
	<u>Hanover County</u>											7
	<u>Henry District</u>											8
	<u>Southern Railway</u>											9
	<u>U.S. No. 60 Pocahontas Trail</u>											10
	<u>State No. 33 Old Williamsburg Road</u>											11
	<u>State No. 156 Battlefield Park Road</u>											12
	<u>Chickahominy River</u>										USGB	13
												14
	<u>Orumps Swamp</u>											15
	<u>Christians</u>											16
	<u>Providence Methodist Church & Cemetery</u>											17
	<u>Davis Store</u>										(not Davis')	18
	<u>Quinton Edna Elementary School</u>											19
	<u>Union Baptist Church</u>											20
	<u>Quinton</u>											21
	<u>Blacks Store</u>										(not Black's)	22
	<u>Cattail Swamp</u>											23
	<u>Camp Orpex</u>											24
	<u>Methodist Orphanage Farm</u>											25
	<u>Camp Mataoka</u>											26
	<u>Camp Mastin</u>											27

TOPOGRAPHIC MAPPING

Summary & Abstract of Vertical Accuracy Test

Project No. 318 Quad. No. T 8609 Quad. Name Quinton
 Method of Testing Planetable Profile
 Tested by IYF Date _____ Evaluated by HRC
 Contour interval 2.0 ft. 0.6 M.M. allowable shift at 1:20,000
~~map~~ or manuscript scale.

- 71 Total number of points tested
- 98.5% of points within $\frac{1}{2}$ contour interval or better
- 70 Test points correct within $\frac{1}{2}$ contour interval
- 1 Test points in error between $\frac{1}{2}$ 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
139	146	7	7	Flat	138	138	0	0	steep
133	141	8	8	"	155	165	10	5	"
143	143	0	0	"	162	162	0	0	"
153	153	0	0	"	140	141	1	0	"
165	166	1	1	"	159	165	6	1	"
162	162	0	0	"	159	159	0	0	"
169	169	0	0	"	153	153	0	0	Smooth
163	163	0	0	"	164	164	0	0	"
163	163	0	0	"	152	152	0	0	"
161	162	1	1	"	149	149	0	0	"
154	155	1	0	Smooth	158	160	2	0	"
146	141	5	0	steep	164	160	4	2	"
126	130	4	0	"	167	161	6	5	"
89	90	1	0	"	166	166	0	0	Flat
80	81	1	1	drain Bottom	162	162	0	0	Smooth
104	102	2	0	steep	159	159	0	0	"
94	112	18	18	Drain Bottom	160	162	2	2	Flat
118	118	0	0	"	142	142	0	0	Smooth
139	141	2	0	steep	147	147	0	0	"
156	161	5	5	Flat	143	143	0	0	"
136	136	0	0	Drain Bottom	177	177	0	0	Flat
156	158	2	2	Flat	168	168	0	0	Flat
153	153	0	0	"	166	166	0	0	"
146	146	0	0	"	160	162	2	2	"
138	142	4	3	Smooth	149	149	0	0	"
118	118	0	0	steep	149	149	0	0	"
98	97	1	1	drain Bottom	157	157	0	0	"
103	103	0	0	Smooth	144	144	0	0	"
121	130	9	7	"	139	142	3	2	Smooth
153	159	6	3	"	141	145	4	2	"
162	162	0	0	"	135	139	4	3	"
166	166	0	0	"	132	132	0	0	"
164	164	0	0	steep	136	142	6	3	"
156	161	5	0	"	127	130	3	1	"
129	129	0	0	Smooth	139	140	1	0	"
					132	132	0	0	"

