

8349

8349

78-3

Form 504	
U. S. COAST AND GEODETIC SURVEY	
DEPARTMENT OF COMMERCE	
DESCRIPTIVE REPORT	
Type of Survey <u>Air Photo Compilation</u>	
Field No.	Office No. <u>T-8349</u>
LOCALITY	
State <u>Virginia</u>	
General locality <u>Rappahannock River</u>	
Locality <u>Millers Tavern</u>	
<u>1944</u>	
CHIEF OF PARTY	
<u>Comdr. Ray L. Schoppe</u>	
LIBRARY & ARCHIVES	
DATE <u>October 21, 1946</u>	

DATA RECORD

T- 8349

Quadrangle (II):

Project No. (II): 289

Field Office: Tappahannock, Va. Chief of Party: Ray L. Schoppe

Compilation Office: Tampa, Fla. Chief of Party: Ray L. Schoppe

Instructions dated (II III): 12/16/42; Copy filed in Descriptive
5/13/43 Report No. T- (VI)

Completed survey received in office: 6/10/44

Reported to Nautical Chart Section: 6/11/44

Reviewed: 10/6/44

Applied to chart No.

Date:

Redrafting Completed: 3/21/45

Registered:

3/46

Published:

1944

Compilation Scale: 1:26,000

Published Scale: 1:31,680

Scale Factor (III): 1.00

Geographic Datum (III): N.A. 1927 Datum Plane (III): M.S.L. 1929

Reference Station (III): BESTLAND, 1934

Lat.: 37°48'25.063"
(772.7M)Long.: 76°52'58.901"
(1440.9M)Adjusted
Unadjusted
#####

State Plane Geocoordinates (VII): Va. South Zone

x = 2,467,148.29 FT. y = 540,534.23 FT.

Military Grid Zone (VI) "A", overlapping zone "B"

PROJECTION (III)

<u>Sheet No.</u>	<u>Date</u>	<u>Scale</u>	<u>Projection</u>	<u>Sheet No. of Base</u>
12992	12/13/42	--	1:20,000	Inshore sheet
12993	"	---	"	"
13000	"	--	"	"
13001	"	--	"	"

Base from (III): --

Local Name: --

Base Name: --

Camera: (Kind or source) U. S. C. & G. S. Nine-Lens

Contours and T.A. Zary, A. La Fave, J. J. Babic,
Field Inspector by: E. London, R. E. Houtrouw

Date: Mar-Apr '44

Field Edit by:

John C. Lajoie Date: ?

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

Projection and Grids ruled by (III) Wash. Office

Date:

" " " checked by: " "

Date:

Control Plotted by: C. A. J. Pauw

Date: Feb. 1944

Control checked by: J. H. S. Billmyer

Date: Feb. 1944

Radial Plot by: Tampa Office Personnel

Date: Apr. 1944

Detailed by: J. Collins, J. L. White

Date: May-June '44

Reviewed in compilation office by: J. H. S. Billmyer
R. Dossett

Date: June-July - 44

Checked by: J. M. Grover
Date: April 1944

J. M. Grover

date: April 1944

STATISTICS (III)

Land Area (Sq. Statute Miles): 64.0

Shoreline (More than 200 meters to opposite shore): 0

Shoreline (Less than 200 meters to opposite shore):
87.3 statute miles

Number of Recoverable Topographic Stations established: --

Number of Temporary Hydrographic Stations located by radial
plot: --

Leveling (to control contours) - miles: 82

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

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

Remarks:

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

This quadrangle, together with similar adjoining maps produced under Project C.S. 289-C was prepared by the Coast and Geodetic Survey for the War Department under "General Specifications for War Department Mapping Program" issued about December 1941, in which is incorporated the "Standard of Accuracy for a National Map Production Program" issued by the Bureau of the Budget under date of June 10, 1941.

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

FIELD SURVEYS

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

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

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

COMPILATION OF MANUSCRIPT

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

FIELD EDIT

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

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

PROCESSING IN THE WASHINGTON OFFICE

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

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

FIELD INSPECTION REPORT

Quadrangle T-8349

1. Description of the area:

This seven and one-half minute quadrangle lies between latitudes $37^{\circ}45'$ and $37^{\circ}52'30''$ and longitudes $76^{\circ}52'30''$ and $77^{\circ}00'00''$. For the most part this area is wooded. There are four distinctive drainage patterns: the northeast corner is drained northeastward by Mussel Swamp; the eastern and southeastern portions ~~is~~ drained off by the headwaters of Dragon Swamp; the northwestern area is drained by Sturgeon Swamp; and the southwest section is drained by Garnetts Creek. This last mentioned Creek has the most perceptible drainage pattern and characteristic of this are the deep gullies. In general, the land has been cleared for agricultural purposes where it is not seriously affected by deep gullies. The relief in the northeastern and southwestern portions is very pronounced; the elevation varies from 20 feet to above 180 feet. There are only two main highways running through this quadrangle; they are US 360 and Va, 199. There are numerous unpaved roads.

2. Completeness of Field Inspection:

Both single and 9-lens photos were used. All roads and trails have been classified. The clarification of details and the identification of buildings, types of woodland has been completed. All churches, schools, post offices, and other public buildings have been labeled and named. Any detail obscured by shadows has been clarified.

3. Interpretation of the Photographs:

Generally speaking the wooded areas appear in two hues: the darker hue is an indication of evergreen and pine growths; the lighter tone that of deciduous growth or cut-over pine areas. Usually the evergreens are found only on the high and flat areas while the deciduous growths are along the banks and bottoms of the drains. Class 3 and 4 roads appear as very good roads due to their clay or sand surface.

4. Horizontal Control:

Triangulation station Bestland, 1924 and USGS Primary Traverse Station 33 were recovered and pricked on the photographs; recovery and picking cards were submitted. USGS Primary Traverse Station 24 was searched for but not recovered; however, BM C274 is believed to be in the same position and a picking card has been submitted for this station. It's horizontal control position is doubtful and should be used with caution. See photos 12992, 13000, and 13001.

5. Vertical Control:

All U. S. Coast and Geodetic Survey bench marks were ~~were~~ recovered and recovery cards submitted. Of the USGS bench marks only those marked stations were recovered and pricked on the photos and recovery cards submitted.

Vertical control for contouring was run by James M. Grover, Photo. Aid.

Control for these fly level lines ^{was} obtained from U. S. Coast and Geodetic Survey bench marks and from USGS bench marks. Thus it was possible to run all main supplemental level lines between bench marks with spur lines running

between the main lines. The average closure for all the loops was 0.16 of a foot.

Level points were picked at road intersections, centers of bridges, road and woodline intersections, etc. An elevation enclosed within an inked circle indicates the elevation is the top of a stake driven flush with the ground and referenced by a guard stake; level points placed on the ground in the road and having a witness stake at the side of the road opposite the elevations are enclosed in parentheses when inked on the photograph.

Fly levels were run and inked on photographs 12992 and 12993. The volumes bearing the field notes for these levels are numbers 21 and 22.

Eighty-two miles of levels were run in this quadrangle.

6. Contours and Drainage:

The contouring on this quadrangle was done by Thomas A. Zary, Jr. Topo. Engr., Joseph J. Babic, Photo. Aid, Earl Loudon, Photo. Aid, R. E. Houtrouw, Sr. Photo. Aid, and Azriel LaFave, Jr. Topo. Engr.

Contouring was done on both the single lens and the 9-lens photos; the photos used were: FG series 109-33 to 109-26, and 9-lens photos: 12992, 12993, 12994, 12999, 130000, 13001, and 13002. As a rule the contouring was confined to the areas blocked off by the Washington Office except in isolated instances where more natural junctions were used.

The plane table method was used in contouring wherever it was possible to do so. In contouring woodland sections, traverses with the alidade were run either on the ridges or along the draws depending on which was the more practical. From those traverses, the Locke level and pace methods were used in running side traverses to the streams or to the tops of the ridges. The drainage patterns provided by the Washington Office proved accurate and complete in those areas with a rugged relief; in the flatter areas they were found in some instances to be inadequate and inaccurate - corrections were made. Since no contouring was done too far from the center of the photo, the scale factor was found to be negligible. Plane table traverse closures were very good.

7 through 12: These items were not applicable in this quadrangle.

13. Landing Fields:

There are none in this quadrangle.

14. Road Classification:

All roads were classified in accordance with the instructions. There are two main highways in this quadrangle: US 360 running to Richmond, Va., and State Highway 199. These two roads are hard surfaced, all weather roads, and carry the brunt of the traffic in this area. Trails and short drives were deleted although a number of trails were classified for they provide the only means of egress to some areas.

15. Bridges:

Bridges have been classified in accordance with the instructions by C. C. Fryer, Jr. Topo. Engr. and are shown on 9-lens photos 13000 and 13001.

16. Buildings and Structures:

All building were classified or deleted. Circled buildings bearing no identification are dwellings; all substantial barns were circled and labeled "b". New structures not shown on the photos were located and inked in red. All public buildings, schools, churches, postoffices, etc., have been named.

17. Boundary Monuments and Lines:

This is the subject of a special report which has been submitted by H. B. Wright, Photo. Aid.

18. Geographic Names:

This is the subject of a special report by J. Stingley, Jr. Topo. Engr.

17. Junctions:

Junctions between the various photos and the work of the various topographers to assure satisfactory junctions was checked. Junctions with T-8360 to the north and T-8350 to the east ^{have} been checked. No junction was made to the south.

18. Photographs on which Work was Accomplished:

Field inspection, contouring, political boundaries, bridge classification, recovery and fly levels were done on the following photographs:

FG series: 109-26 to 109-33 inclusive

9-lens photos: 12992 to 12994 inclusive and 12999 to 13002 inclusive.

48. Accuracy Tests:

Vertical Accuracy: refer to descriptive reports for quadrangles T-8360 and T-8350.

Horizontal Accuracy: refer to descriptive reports on the Desha - Durmsville Traverse and the Durmsville - Pitts Traverse; these two traverses were run in Quadrangles T-8350, -8359, and -8360.

Submitted by:

Aziel LaFave
Aziel LaFave,
Jr. Topo. Engr.

Approved by:

F. L. Gallen
F. L. Gallen,
Chief of Party
F.L.G.

COMPILATION REPORT
To Accompany
SHEET NO. T-8349

26. CONTROL

Three control stations fall within the tracing limits of the sheet, two of which could be held to in the radial plot. One station, "P.T.S. 24",* which could not be held, gave intersections 9 meters northeast of the plotted position in the main radial plot. * PTS 24 (USGS) was not recovered. BM C274 at the same approximate location was the point picked on the photographs.

27. RADIAL PLOT

The main radial plot, of which this sheet was a part, is covered in the compilation report for Sheet T-8359*. T-8349, T-8350, T-8359 + T-8360 were plotted as a unit. Desc. Report T-8359 states that due to inadequate control on T-8349 the accuracy of the plot, particularly in the south west quarter is doubtful.

28. DETAILING

The photographs were of good scale and sufficiently clear to insure correct interpretation of detail.

Single lens photographs were used to supplement the nine lens prints in the delineation of roads.

A few small adjustments were made in detailing drainage and contours in the southwestern portion of this sheet. These changes were made after careful study of the drainage under the stereoscope, as apparent on the single lens photographs, and only to the extent of correcting obvious errors of drainage in heavily wooded areas.

The field inspection was considered adequate.

29. SUPPLEMENTAL DATA

No maps or plans by other organizations were used to supplement the photographs or field inspection.

30. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES

A comparison was made with the U. S. Geological Survey quadrangle of this area (edition of 1926 on a scale of 1:62,500). The scale of this map was too small for a thorough comparison; however, no large discrepancies were noted.

A lot of the detail of an unimportant nature does not compare very favorably, but since the quadrangle is from much older surveys, these comparisons can be disregarded.

45. COMPARISON WITH NAUTICAL CHARTS

None of the published nautical charts show the area covered by the sheet in detail.

Respectfully submitted,

J. Collins

J. Collins,
Sr. Photo. Aid.

J. L. White

J. L. White,
Prin. Photo. Aid.

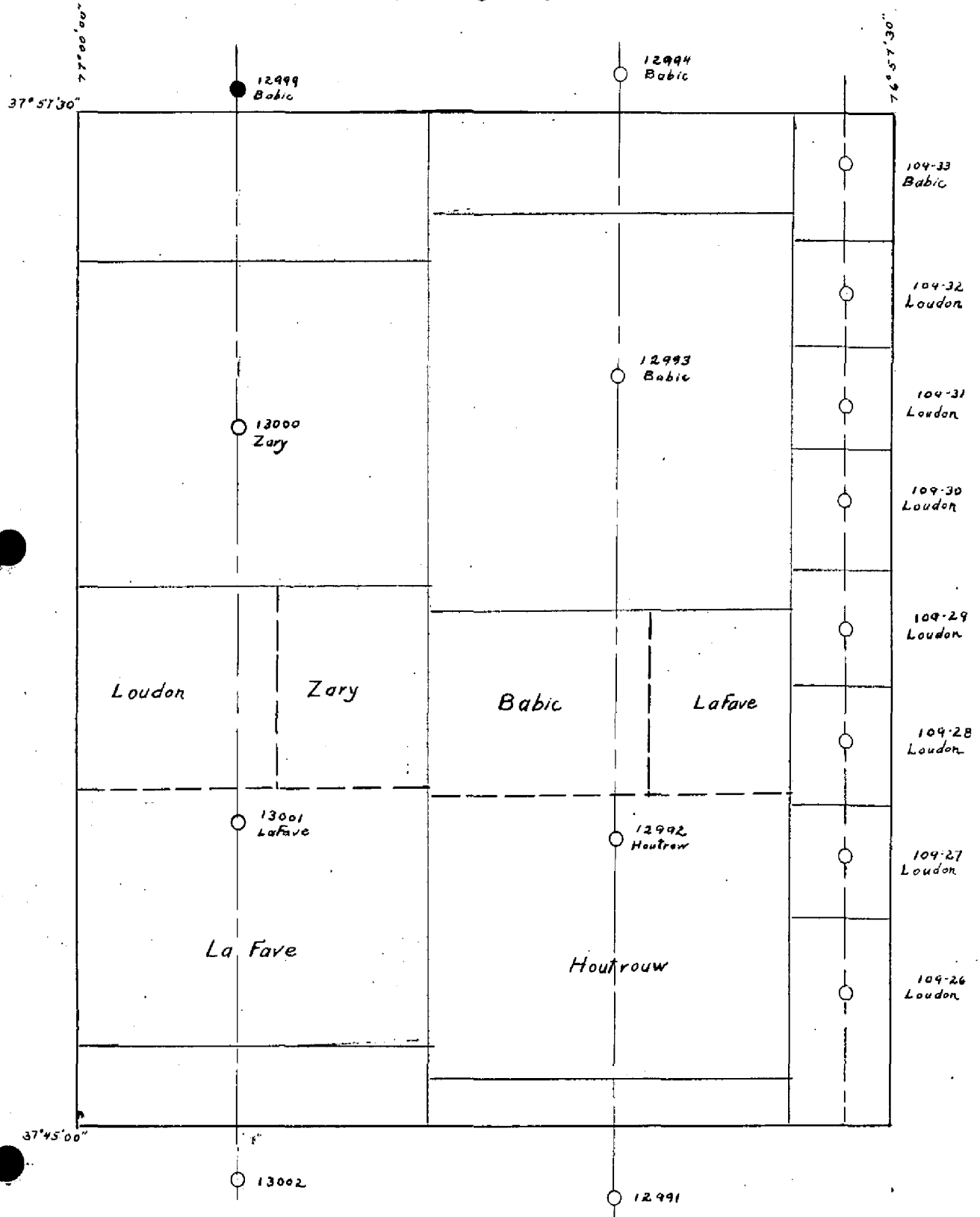
Forwarded by:

Ray L. Schoppe
Ray L. Schoppe,
Chief of Party.

Disposition Of Topography

BY PHOTOS IN

QUAD - 8349



Field Edit Report
Quadrangle T-8349
Project CS 289 C

1. Items 1 through 4: See Field Inspection Report

5. Vertical Control:

All elevations should be checked by the Washington Office. All bench marks have been checked by the Field Edit Party.

6. Contours and Drainages:

See Field Inspection Report. A representative check was made of the drainage and no changes were found.

A few small changes were made on the North edge of this quadrangle, in effecting a junction with the contours on Quadrangle 8360.

7. Mean High Water Line:

Not applicable to this quadrangle.

8. Mean Low Water Line:

Not applicable to this quadrangle.

9. Wharves and Shoreline Structures:

Not applicable to this quadrangle.

10. Details Offshore From High Water Line:

Not applicable to this quadrangle.

11. Landmarks and Aids to Navigation:

Not applicable to this quadrangle.

12. Hydrographic Control:

Not applicable to this quadrangle.

13. Landing Fields and Aeronautical Aids:

There were no landing fields or aeronautical aids in this quadrangle.

14. Road Classification:

All roads were classified and shown in accordance with the instructions from the Army War College, dated January 12, 1942.

15. Bridge Inspection:

Bridges were classified by C. C. Fryer, Jr. Topo. Engr. A culvert referred to

on the discrepancy overlay as a bridge was investigated. One small bridge was classified.

16. Buildings:

In general there were few buildings to be classified, added, or deleted. Buildings which have burned or have reached such an advanced state of delapidation as to no longer fall within the general classification for habitable structures, have been deleted. All public buildings were named and verified in the field.

17. Boundary Monuments and Lines:

The political boundaries were traced from the overlay to the smooth sheet and were verified in the field.

18. Geographic Names:

This is included in the Special Report of Investigation of Geographic Names, Part of Project CS 289 W, Virginia, May, 1944, submitted by Jack W. Stingley, Jr. Topo. Engr.

The name sheets and Geographic Name report have already been forwarded to the Washington Office.

19. Junctions:

Satisfactory junctions were made with Sheet T-8360 to the North and Sheet T-8350 to the East. To the South a satisfactory junction was made with the field inspection photographs in this area for project 289 W.

46. Methods:

This quadrangle was field edited on an ozalid and later transferred to a duplicate in the office. Discrepancies not covered by a suitable symbol were noted on the compilation by a sentence and an arrow to the point in question. All symbols used were standard topographic symbols except that a green X was used for deletions and a tick mark was used to show the limits of deletion and the points of change in road classification. The following color scheme was used:

Deletions	Green
Additions, Classifications, Names, Notes, Etc.	Black
Water Culture	Blue
Political Boundaries	Purple
Contours	Brown

47. Adequacy of the Compilation:

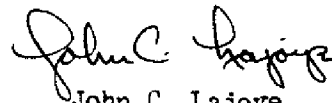
The compilation of this sheet was adequate and complete with few deletions, additions, or classifications necessary.

48. Accuracy Tests:


Horizontal: See Field Edit Report for T-8350 and T-8360, for closest test.

Vertical: See Field Inspection Reports for T-8350 and T-8360, for closest test.

Submitted by:


John C. Lajoie
Prin. Photo. Aid.

Approved by:


F. L. Gallen
Chief of Party

1-8349

No. 1
Decisions
Remarks

1	USCB	
2		
3		
4		
5	Road Maps	
6	"	
7		
8		
9		
10		
11		
12	377768	
13	"	
14	377769	
15	377767	
16	377769	Use this name pending USCB decision
17	"	
18	"	
19	"	
20	"	
21	"	
22	"	
23	376769	
24	377769	
25	"	
26	"	
27	"	
M 234		

GEOGRAPHIC NAMES

Survey No. T-8349

HOWERTONS quadrangle

1 Name on Survey

	A	B	C	D	E	F	G	H	K	
Virginia	✓									1
Essex County	✓									2
King and Queen County	✓									3
Dragon Swamp	✓	✓								4
U.S. 360	✓									5
Va. No. 14, 199	✓									6
Rappahannock District	✓		(Essex County)							7
Central District	✓	✓	"							8
NEW TOWN Clarks District	✓	✓	(King and Queen County)							9
Stevensville District	✓	✓	"							10
										11
Bestland Bridge	✓	✓								12
Crouch	✓	✓								13
Va. State Fish Hatchery	✓	✓								14
Exel Swamp	✓	✓								15
Daisy	✓	✓								16
Prince Road	✓	✓								17
Prince	✓	✓								18
Jones Bridge	✓	✓								19
Powcan	✓	✓								20
Providence Church	✓	✓								21
Smyrna Church	✓	✓								22
Garnetts Creek	✓	✓								23
Edge Hill School	✓	✓								24
Bruington	✓	2								25
Bethlehem Church	✓	✓								26
Ridge Road	✓	✓								27

T-8349

No. 2

Remarks.

Decisions

1		377769
2		"
3		378769
4		"
5		"
6		"
7		"
8		"
9		"
10		"
11		378768
12		"
13		"
14		"
15		"
16		"
17		377768
18		
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24		
25		
26		
27		

GEOGRAPHIC NAMES

Survey No. T-8349

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	
✓	Henleys Fork	✓	✓								1
✓	Dogwood Fork	✓	✓								2
✓	Minor	✓	✓								3
✓	St. Pauls Church	✓	✓								4
✓	Millers Tavern	✓	✓								5
✓	John Moncure School	✓	✓								6
✓	Wrights Millpond	✓	✓								7
✓	Trinity Church	✓	✓								8
✓	Beulah Church	✓	✓								9
✓	Sturgeon Swamp	✓	✓								10
✓	Pauls Cross Roads	✓	✓								11
✓	Mussel Swamp	✓	✓								12
✓	Howertons	✓	✓								13
✓	Howertons Road	✓	✓								14
✓	Covington Bridge	✓	✓								15
✓	Bestland	✓	✓								16
✓	Dragon Run	✓	✓								17
											18
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											25
											26
											27

Names determined in rec approved
by L. H. H. on 1/30/45

RECORDS

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

Registered and Filed in the Vault

Cloth-mounted copy of the published quadrangle.

published quadrangle at 1:20,000 scale.

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

Descriptive Report.

Division.

Filed in the Photogrammetric Section - ~~Surveys Branch~~

Field inspection photographs.

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

Field edit sheet.

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

Supplementary traverse and level records.

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

Reproduction proof.

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

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

Original celluloid manuscript.

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

Filed in Reproduction Branch

Glass negatives of the color separation drawings.

Filed in the Library

~~Special report on field work by Commander K. T.
Adams, 1944.~~

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

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

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

Delivered to the Army Map Service in accordance
with the contract

Film negatives and film positives of the color
separation drawings.

All color separation drawings.

~~Original celluloid manuscript.~~

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

DIVISION OF CHARTS

SURVEYS BRANCH

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-8349

HOWERTONS QUADRANGLE

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

Horizontal and Vertical Accuracy

The nearest horizontal accuracy test was run in quadrangles T-8350 and T-8360.

The nearest vertical accuracy test was run in quadrangles T-8350 and T-8360.

Previous Surveys

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

There are no previous topographic surveys in this area.

Comparison with Nautical Charts Nos.

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

No nautical charts cover this area.

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

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

A junction discrepancy was found on this quadrangle during the mapping of the adjoining quadrangle T8613, (Aylett, Va.) Project 318.

The discrepancy was resolved in the Washington Office and verified by the field party during the field edit of T8613.

The corrections have been applied in red ink to the registered copy of T8349 as well as to the original map manuscript. A copy of these corrections have been furnished to the Chief of Engineers, U. S. Army Map Service.

March 12, 1948

Harland P. Crovat

Reviewed 10-6-44 By Lillian A. Lee
under direction of D. H. Benson

Inspected by B. G. Jones B. G. Jones 8/46

Examined and approved:

K. T. Adams
Chief, Surveys Branch
Division of Photogrammetry

Chief, Topography Section

Robert W. Kna
Chief, Div. of Charts
Nautical Chart Branch
Raymond E. Lyman
Chief, Div. of Coastal
Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. 8349

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.