original

8144

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Air Photographic Topographic

Field No. 56 *Office No.* T-8144

LOCALITY

State Virginia

General locality Chesapeake Bay (Western Shore)

Locality Potomac River Mantoss Quad

1943

CHIEF OF PARTY
F.L. Gallen
Fred. L. Peacock

LIBRARY & ARCHIVES

DATE October 2, 1945

B-1870-1 (1)

8144

Form T-1

DATA RECORD

T-8144

Quadrangle (II):
Montrose 7½ minute Quadrangle
Wakefield 15 minute Quadrangle

Project No. (II):
CS-278-A

Field Office:
Salisbury, Md.

Chief of Party:
Wm. D. Patterson
F. L. Gallen

Compilation Office:
Baltimore Field Office

Chief of Party:
Fred. L. Peacock

Instructions dated (II III):
March 4, 27; June 5, 24)
August 13, 27, Sept. 3, 4) 1942

Copy filed in Descriptive Report No. T- (VI)

Completed survey received in office: 3/30/43

Reported to Nautical Chart Section: 3/43

Reviewed: 6/11/43 Applied to chart No. Date:

Redrafting Completed: 10/21/43

Registered: 9/26/45 Published: 12/23/44

Compilation Scale: 1:20,000 Published Scale:

Scale Factor (III): none

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

Reference Station (III): Nehi, 1942

Lat.: 38° 01' 48.0$^{2}_{39}$" 1481.$^{0.8}_{4}$ (368.8)m $^{S.1}$ Long.: 76° 46' 29.2$^{55}_{19}$" 712.$^{3.6}_{4}$ (750.9)m Adjusted

State Plane Coordinates (VI):

X = 2,496,922.77 (Va. North)
2,496,930.13 (Va. South)

Y = 136,982.99 (Va. North)
622,295.34 (Va. South)

Military Grid Zone (VI)

A and B

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
Nine Lens				
8873 to 8876 Inc.	4/15/42	12:51 to 12:55p.m.	1:20,000	1.45' above M. L. W.
8891 to 8893 Inc.	4/15/42	1:17 to 1:21p.m.	1:20,000	1.55' above M. L. W.
Single Lens				
FG 105-155 to FG 105-163	4/7/37	unknown	1:20,000	unknown
FG 107-08 to FG 107-16	4/7/37	unknown	1:20,000	unknown
FG 107-91 to FG 107-99	4/7/37	unknown	1:20,000	unknown
FG 109-40 to FG 109-49	4/17/37	unknown	1:20,000	unknown

Tide from (III): Tables of predicted tides, reference station Hampton Roads, Virginia, with time correction for Tappahannock, Virginia.
Mean Range: 1.6' Spring Range: 1.9'

Camera: (Kind or source) U.S.Coast & Geodetic Survey nine lens camera (focal length 8¼"). 9" x 9" single lens contact prints obtained from the Soil Conservation Service, U. S. Dept. of Agriculture

Field Inspection by: Horizontal Control: G. B. Wood date: May-June, 1942
Cultural Features: J. N. Henningsen, H.R. Cravat, A.M.Jylha, H.M.Eldridge and G. B. Wood date: October, 1942 to January, 1943

Field Edit by: Louis Levin date: Apr.-1943

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

Same as date of nine lens photographs

Projection and Grids ruled by (III) Washington Office date: Sept. 9, 1942
" " " checked by: C.H.R., J.O.N., W.C.B. Washington Office date: Sept. 9, 1942

Control plotted by: Harry L. Spaulding date: Sept.24, 1942

Control checked by: George O. Fellers date: Sept.24, 1942

Radial Plot by: J.Edward Deal, Jr. & Joseph Steinberg date: October, 1942

Detailed by: Edward H. Snyder date: Feb.,Mar.,194[illegible]

Reviewed in compilation office by: Henry P. Eichert date: March 26,1943

Elevations on Field Edit Sheet checked by: L.G.Chambers date: Apr.1943

STATISTICS (III)

Land Area (Sq Statute Miles): 56 square Statute Miles

Shoreline (More than 200 meters to opposite shore): 1

Shoreline (Less than 200 meters to opposite shore): 4.5

Number of Recoverable Topographic Stations established: 6

Number of Temporary Hydrographic Stations located by radial plot:

2

Leveling (to control contours) Statute -/miles: 55

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: Contours by: J. N. Herningsen, A.M. Jylha, H.R. Cravat, H. M. Eldridge, G. B. Wood, Oct. 1942 to January, 1943.

FIELD INSPECTION REPORT
QUADRANGLE T-8144
Project CS-278-A
F.L.Gallen, Chief of Party

1. DESCRIPTION OF AREA - There are about 2 square miles of low, flat land part of the Rappahannock River bottom, in the southwest corner of the quadrangle and the remainder of the area is an upland cut-up principally by the Cat Point Creek drainage system, with a small area draining to Nomini Creek in the northeast corner of the quadrangle. Cat Point Creek has a wide, flat marshy bottom for a considerable distance from the mouth of the creek, but the tributary valleys mostly have firm bottoms. The valleys tend to be U-shaped with a low gradient near the mouth and become more V-shaped and steeper in gradient near the head. Most of the larger valleys have perennial streams in the bottom. The tops of the ridges between the valleys are flat to gently rolling and many are cleared and farmed. The elevations vary from a few feet above sea level to a maximum of about 160 feet.

   Except where cleared and farmed the area is heavily timbered with pine and deciduous trees and usually a moderate to heavy undergrowth of brush is present. Pine trees predominate on the ridges and deciduous trees in the valleys. Some areas have been logged in recent years and these areas are evident on the photographs by a mottled appearance and a network of minor trails. Although the timber may not be thick in these areas foot travel is often difficult due to incomplete clearance of fallen timber.

2. COMPLETENESS OF FIELD INSPECTION - The field inspection is thought to be complete on all items and only minor field inspection of the Map Manuscript should be necessary.

3. INTERPRETATION OF THE PHOTOGRAPHS - The photographs are typical for this area.

4. HORIZONTAL CONTROL - No supplemental stations were established. The necessary information to supply the names of lost and unlocated stations is not available.

5. VERTICAL CONTROL - Same as for T-8148.
   The CZ level line, a spur line, was checked by tying the end with a line through the woods. Closure 0.4 foot.

   The CBE level line had a closure of 1.48 foot which was adjusted without further field work.

   The elevation of CBE 2 is in error, probably due to a wrong location on the photograph. It was changed from 110.2 to 114.2 feet.

6. CONTOURS AND DRAINAGE - Same as for T-8148.
   The same procedure was followed as on previous quadrangles.

By G. B. Wood - NW corner of quadrangle. Photographs Nos. 8875 and 8874.

The location of streams in wide, flat valleys is doubtful, especially where marsh is indicated along with a heavy growth of timber, and it was not feasible to field inspect the actual location of the stream. The position of the stream as indicated by the stereoscope and by vegetation changes was accepted in these cases and it is believed the position as shown is within 100 feet of the correct position.

All vertical traverses were closed with less than 1 foot of error.

By J. N. Henningsen - SW part of quadrangle, Photograph No. 8873.

Due to the fact that this photograph had a large scale difference the contours were fitted to the natural features as much as possible. Drainage drawn in under a stereoscope checked good in the field. It is thought that the ideal time to contour conntry of this type is during the period when the trees are bare of leaves as it enables the topographer to rod in many more elevations than at the greenest part of the year.

There were no large closures of vertical traverses.

By H. M. Eldridge - East side of quadrangle, Photograph 8892.

The contours shown on the cloud image were located by planetable traverse. The remainder of the cloud area was contoured by A.M. Jylha on Photograph No. 8893.

Drainage was checked by traverse shots and by pacing from known points such as vegetation changes. It was found that in wide, flat, heavily timbered bottoms the streams meandered from side to side. However when the distances checked to the center of the draws the stream locations were accepted as correct.

Most vertical traverses closed with less than 1 foot error. At the start of the work on this photograph inclined distances were not corrected before computing elevations with the Hypsograph and the vertical closures were from 1 to 2 feet, with one closure of 3 feet. The 3 foot closure was on a traverse through the woods and since no elevations were left on the photograph the line was not adjusted.

By A. M. Jylha - East side of quadrangle. Photograph 8893.

Due to a cloud image on Photograph 8892 it was necessary to work far out from the principal point on the NW part of Photograph 8893. There is considerable scale factor in this area and stereopsis was poor. Most of this area was either rodded or paced in from surrounding detail.

There are no large vertical closures and most closures were under 1 foot.

Most streams are perennial and are fed by spring seepages at the source.

7-11. Same as for T-8148.

12. HYDROGRAPHIC CONTROL - There is no shoreline of Navigable Waters within the limits of this quadrangle.

13-16. Same as for T-8148

17. BOUNDARY MONUMENTS AND LINES - The Westmoreland-Richmond County Line will be added to the Map Manuscript.

18. Same as for T-8114.

Submitted by,

G. R. Fish,
Lieut. U. S. C. & G. S.

Approved and forwarded:

F. L. Gallen,
Chief of Party.

The Westmoreland-Richmond County boundary line between Cat Point Creek and Brokenbrough Creek was changed, July 21,1945, by a Commission appointed by the Judge of the Circuit County of the two counties. For complete information see the U.S.C.& G.S. library files.

The change has been noted on all the necessary maps.

Compilation Report

26 CONTROL:

There is one U. S. Coast & Geodetic Survey triangulation station within the detailed limits of this map manuscript, namely, Nehi, 1942.

There are six U. S. Coast & Geodetic Survey triangulation stations just beyond the detailed limits of this map manuscript, namely:

Nash, 1934
Chilton, 1934
Hollis, 1932
Smarts, 1932
Church, 1932
Westmoreland Lookout Tower, 1942

27 RADIAL PLOT:

The radial plot for this map manuscript is described in section one of the descriptive report for the Radial Plot of sub-projects CS-278-A and CS-278-D which has previously been submitted.

28 DETAILING:

Most of the detailing was done from the nine lens photographs using the center chambers as much as possible. Where relief was exceptionally great, the single lens photographs received from the Soil Conservation Service were used to a large extent.

Field inspection for the entire area of this map manuscript was generally satisfactory.

All drainage was determined by stereoscopic examination of the office photographs, the single lens pictures being used in most cases. Where very slight discrepancies occured between this examination and the field inspection, the drainage was adjusted to agree with the field inspection. This was donein order to facilitate more accurate contouring. Where drainage discrepancies were considerable however, the contours were adjusted to fit the office interpretation of the drainage. Where field inspection was in disagreement with the office interpretation of the marsh areas, appropriate notes have been made on the discrepancy overlay.

29 SUPPLEMENTAL DATA:

Previous Surveys No. T-1104, T-2808, and H-3011acover portions of the detailed area of this map manuscript. Copies of these surveys were not available to this compilation office.

30 MEAN HIGH WATER LINE:

The stage of tide of the nine lens photographs was computed from tables of predicted tides, before detailing of the Mean High Water Line was attempted.

31 [illegible]

31 LOW WATER AND SHOAL LINES:

There are no low water areas or shoal lines indicated on the field inspection and none were discernible on the office photographs.

32 DETAILS OFFSHORE FROM THE HIGH WATER LINE:

There are no offshore details discernible on the office photographs within the limits of this map manuscript and none were indicated by the field inspection.

33 WHARVES AND SHORELINE STRUCTURES:

Wharves and shoreline structures were not discernible on the office photographs and none were indicated on the field inspection photographs.

34 LANDMARKS AND AIDS TO NAVIGATION:

No landmarks or aids to navigation appear on this map manuscript and none were indicated by field inspection.

35 HYDROGRAPHIC CONTROL:

Five recoverable topographic stations fall within the detailed limits of this map manuscript, namely:

T. T. Station No. 10 W, 1929, 1942
T. T. Station No. 5 W, 1929, 1942
T. T. Station No. 20 W, 1929, 1942
T. T. Station No. 9 W, 1929, 1942
T. T. Station No. 8 W, 1929, 1942

Forms No. 524 are being submitted with this descriptive report for the above stations.

These stations are not suitable for any future Hydrographic survey.

Two temporary hydrographic signals were radially plotted and are described on the discrepancy overlay.

37 AZIMUTH REFERENCE MONUMENTS:

There is one Azimuth reference monument, namely, Nehi Azimuth, R. M. 1942.

A description of this station is submitted herewith on form No. 524.

38 JUNCTIONS:

No contemporary surveys border this map manuscript to the south. A complete junction was made with T-8141 to the north, T-8143 to the west and T-8145 to the east.

39 GEOGRAPHIC NAMES:

A list of undisputed and disputed geographic names, as recorded on U. S. Geological 15 min. Wakefield, Va. Quadrangle, by the Field Inspection Party, has been prepared and is attached to this descriptive report.

40 DISCREPANCY OVERLAY:

A discrepancy overlay has been prepared to accompany this map manuscript. On it are noted questions concerning correct interpretation, comments, and such notes as are deemed likely to be of assistance during the field edit.

Also shown for the use of the Baltimore Compilation office, are the names or numbers of all bench marks.

41 HORIZONTAL ACCURACY:

Horizontal accuracy of the location of well-defined and less well-defined points of detail is believed to be within the limits as set forth in the instructions for Project CS-278, Paragraph 54, dated March 4, 1942.

42 RECOMMENDATION FOR FUTURE SURVEYS:

The planimetric detail as presented on this map manuscript is believed complete, but is subject to field edit for corrections, additions, and deletions.

43 REMARKS:

The area covered by this map manuscript is very rolling and has greater differences in elevations than any of the other map manuscripts in Projects CS-278-A and CS-278-B. Except in a small area in the southwest corner, the 20 ft. contours are very intense.

The description of the area, covered by this map manuscript, which is included in the field report herein attached, is considered adequate.

44 COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES:

Due to scale differences, an accurate comparison of this survey with the U. S. Geological Survey Quadrangle of this area, issued 1932, is not practicable. An approximate comparison reveals little change, except for the addition of some few roads since the date of the Geological Survey.

45 COMPARISON WITH NAUTICAL CHARTS:

The area of this map manuscript is not covered by any U. S. Coast & Geodetic Survey Chart.

Respectfully submitted,
March 26, 1943

Edward H. Snyder
Photogrammetric Aid

Map Manuscript, Discrepancy Overlay and Descriptive Report Reviewed by:

Henry P. Eichert
Jr. Photogrammetric Eng.

Compilation of Map Manuscript Supervised by:

J. Edward Deal, Jr.
Asst. Photogrammetric Eng.

and

Joseph Steinberg
Asst. Photogrammetric Eng.

Approved & Forwarded:
March 27, 1943

Fred. L. Peacock
Officer-in-Charge
Baltimore Field Office

LIST OF GEOGRAPHIC NAMES

Undisputed

Bailey Swamp
Big Swamp
Black Swamp
Bowens Swamp
Bumbers Branch
Cat Point Creek
Chandlers Millpond
Chandlers Mill Run
China Hill Road
Connellee Mill
Connellee Mill Run
County Bridge
County Bridge Road
Crookhorn Branch
Crusenberry Meadow
Davis Branch
East End
East End Church
Farmers Fork
Finchs Branch
Finchs Bridge
Finchs Hill
Finchs Road
Galilee Church
Grand Mammy Swamp
Hall Branch
Havelock
Jones Branch
Knapper Run
Lawrence Swamp
Lyell Branch
Marshall Creek
Meadow Farm
Menokin Bay
Menokin Church
Menokin Farm
Menokin Landing
Menokin Millpond
Menokin Mill Run
Montross
Montross Bridge
Nanny Sanford Swamp
Newland
New Zion Church
Nomini School
Oak Row Road
Omahundra Mill Pond
Omahundra Run
Pantico Bridge
Pantico Pond
Pantico Run
Poorhouse Swamp
Porridge Pot
Porters Meadow
Ramey Fork
Reeds Swamp
Richmond County
Rock Springs Hill
Ruin Branch
Scates Branch
Scates Mill Stream
Sexton Hill
Sexton Hill Branch
Sissen Run
Snyder Road
Snyder Swamp
Springfield Branch
Stony Hill
Tallent Town
Templeman Run
Waterview Creek
Webb Run
Welcome Grove Church
Westmoreland County
Wilna Creek
Woodville Creek
Woodville Farm
Zacata

LIST OF GEOGRAPHIC NAMES

Recommended	Disputed
Bellfield Creek	Omahundra Creek
Canal Swamp	Rock Springs Creek
County Line Fork	Pantico Pond Fork
Dividing Swamp	Grant Swamp Custis Swamp
George Washington Memorial Hwy.	Kings Highway
Mitchell Run	Marriner Swamp
Muddy Run	Muddy Gut Swamp
Parker Run	Masten Mill Run
Peirce Creek	Peirces Creek
Templeman Cross Roads	Templeman Crossroads
Weavers Millpond	Webers Millpond

FIELD EDIT REPORT
T-8144

46. The field edit was done by visual inspection using the map manuscript in the field and transferring all additions, deletions and corrections while inking.

The inking was done in accordance with the following scheme:

Features	Colors
Additions, bench marks, wye level elevations and crosses.	Black
Deletions	Green
Contours	Brown
Drainage features	Blue
Civil boundaries	Violet

47. The position and amount of detail on this map manuscript is believed to be complete and accurate.

48. The horizontal accuracy test is the subject of a special report by L. G. Chambers on Project 278-A.

The vertical accuracy test is the subject of a special report by Lieut. G. R. Fish on Project 278-A.

Respectfully submitted,
Louis Levin per FLG.
Louis Levin,
Photogrammetric Aid.

Approved and forwarded:
F. L. Gallen
F. L. Gallen,
Chief of Party.

T-8144

No. 1

	Remarks	Decisions
1		380767
2		"
3		"
4		"
5		"
6		"
7		"
8		"
9		"
10		"
11		"
12		"
13		" USGB
14		"
15		"
16		"
17		" USGB
18		"
19		"
20		"
21		"
22		"
23		"
24		"
25		"
26		"
27		

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GEOGRAPHIC NAMES

Survey No. T-8144

MONTROSS quadrangle

No. 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	
Muddy Run		✓								1
Connellee Mill		✓								2
Connellee Mill Run		✓								3
Webb Run										4
Knapper Run										5
Pentico Pond		not shown								6
County Line Fork	✓ (settlement)									7
Marshall Creek	✓									8
Omahundra Millpond	✓									9
Omahundra Run	✓									10
Galilee Church	✓									11
Momini ~~School~~ church	✓									12
Templeman	✓									13
Templeman Run	✓									14
Reeds Swamp	✓	—	?							15
Scates Branch										16
Weavers Millpond										17
Sisson Run	✓									18
Pentico Bridge	✓									19
Farmers Fork	(settlement)									20
Sexton Hill										21
Menokin Farm										22
Menokin Millpond	✓									23
Hall Branch	✓									24
Lyell Branch	✓									25
Tollent Town										26
										27

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T-8144

No. 2

	Remarks	Decisions
1		380768
2		"
3		"
4		"
5		"
6		"
7		"
8		"
9		"
10		"
11		"
12		"
13		"
14		"
15		"
16		"
17		"
18		"
19		"
20		"
21		"
22		"
23		"
24		"
25		"
26		"
27		"

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GEOGRAPHIC NAMES

Survey No. T-8144

No. 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	
Menokin Landing	✓									1
Menokin Bay	✓									2
Menokin Church	✓									3
Sexton Hill Branch	✓									4
Woodville Creek	✓									5
Woodville Farm	✓									6
Canal Swamp	✓									7
Rock Springs Hill	✓									8
County Bridge	✓									9
County Bridge Road	✓									10
Bellfield Creek	✓									11
Pantico Run	✓									12
Parker Run	✓									13
Jones Branch	✓									14
Crookhorn Branch	✓									15
East End	✓									16
East End Church	✓									17
Montross	✓									18
Ruin Branch	✓									19
Stony Hill	✓									20
Chandlers Mill Run	✓									21
Finchs Bridge	✓									22
Finchs Road	✓									23
[illegible] Bridge										24
The Big Swamp	✓									25
Mitchell Run	✓									26
China Hill Road	✓									27

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No. 3

	Remarks	Decisions
1		380768
2		"
3		"
4		"
5		"
6		"
7		"
8		"
9		"
10		"
11		"
12		"
13		"
14		"
15		379768
16		"
17		381768
18		"
19		"
20		"
21		"
22		"
23		"
24		"
25		"
26		381767
27		"

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GEOGRAPHIC NAMES

Survey No. T-8144

No. 3

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	
Bailey Swamp	✓									1
Montross Bridge	✓									2
Snyder Road	✓									3
Snyder Swamp	✓									4
Oak Row Road	✓									5
Bowen Swamp	✓									6
Grand Mammy Swamp	✓									7
Newland	✓									8
Porridge Pot	✓ (pond)									9
Welcome Grove Church	✓									10
Ramey Fork	✓ (settlement)									11
Scates Mill Stream	✓									12
Havelock	✓									13
New Zion Church	✓									14
Cat Point Creek	✓									15
Waterview Creek	✓									16
Finchs Hill	✓									17
Chandlers Millpond	✓									18
Black Swamp	–									19
Dividing Swamp	✓									20
Crusenberry Meadow	✓									21
Porters Meadow	✓									22
Nanny Sanford Swamp	✓									23
Davis Branch	✓									24
Poorhouse Swamp	✓									25
Zacata	✓									26
Bumbers Branch	✓									27

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T-8144

No. 4

	Remarks	Decisions
1		381767 USGB
2		"
3		"
4		"
5		
6		
7		
8		
9		381768
10		Road Maps
11		"
12		"
13		"
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GEOGRAPHIC NAMES

Survey No. T-8144

No. 4

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	
Peirce Creek	✓									1
Meadow Farm	✓									2
Lawrence Swamp	✓									3
Springfield Branch	✓									4
										5
Westmoreland County										6
Richmond County	✓									7
										8
George Washington Memorial Highway (preferred by names report over older Kings Road)										9
Va. Highway No. 3										10
" No. 204	through Newland									11
" No. 202	Templeman to SSW									12
" No. 214	To Montross from NNE									13
										14
										15
										16
										17
	Names underlined in red approved by W.F.P. 6-28-43									18
										19
										20
										21
										22
										23
										24
										25
										26
										27

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RECORDS

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

Registered and Filed in the Vault

Cloth-mounted copy of the published quadrangle.

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

Descriptive Report.

Filed in the Photogrammetric Section - Surveys Branch

Field inspection photographs.

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

Field edit sheet.

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

Supplementary traverse and level records.

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

Reproduction proof.

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

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

Original celluloid manuscript.

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

Filed in Reproduction Branch

Glass negatives of the color separation drawings.

Filed in the Library

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

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

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

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

Delivered to the Army Map Service in accordance with the contract

Film negatives and film positives of the color separation drawings.

All color separation drawings.

~~Original celluloid manuscript.~~

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

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

This quadrangle, together with similar adjoining maps produced under Project C.S.278-A was prepared by the Coast and Geodetic Survey for the War Department under "General Specifications for War Department Mapping Program" issued about December 1941, in which is incorporated the "Standard of Accuracy for a National Map Production Program" issued by the Bureau of the Budget under date of June 10, 1941.

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

FIELD SURVEYS

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

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

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

COMPILATION OF MANUSCRIPT

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

FIELD EDIT

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

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

PROCESSING IN THE WASHINGTON OFFICE

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

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

DIVISION OF CHARTS

SURVEYS BRANCH

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-8144

MONTROSS 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 — attached at back.

The horizontal accuracy test on this map consisted of the comparison of scale positions with the traverse position for the same features as determined by the U.S.Geological Survey. This showed an average of 1.0mm. for all points tested. It is considered possible that this may be due to datum differences. See next page.

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 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:

There are no nautical charts in 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.

An attempt was made to use existing geological survey traverse points (withheld during the radial plot) for testing this and other quadrangles on project 278 A. In all cases the tests were not satisfactory showing differences of 1 to 2 millimeters where radial plots had been carefully made on strong control. These tests were disregarded ~~as~~ the known of uncertainty of ~~accuracy~~ accuracy and identification of the U.S.G.S. traverse. B.G. Jones.

Reviewed April 1943 **By** Peter Kerr per W.M.

under direction of D. H. Benson

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

Examined and approved:

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

F. Braun
Chief, Div. of Charts

K.T. Adams
Chief, Topography Section

Raymond R. Tyson
Acting **Chief, Div. of Coastal Surveys**

Horizontal Accuracy Tests

Comparison of U.S.G.S. Transit Traverse Points with Plotted Positions on U.S. Coast and Geodetic Survey Quadrangles

Project 278-A

Quad T-8144

Point	Lat.	G.P. M	Plotted Positions M	Long.	G.P. M	Plotted Positions M	Position Diff. (mm) Direction
20 1916	38°00'	795.5	816	76°45'	209.8	205	1.0 mm ~~N.N.E~~ NNE
21. 1916	38°00'	1510.9	1527	76°46'	92.7	85	.9mm ~~N.N.~~ NNE
22. 1916	38°00'	252.8	263	76°49'	793.0	780	.82mm N.E.
23. 1916	38°00'	228.2	255	76°50'	1376.0	1373	1.4 mm ~~N.N.~~ NNE
24. 1929	38°00'	1742.8	1763	76°50'	1199.9	1195	1.0 mm ~~N.N.~~ NNE
25. 1929	38°05'	1152.0	1170	76°50'	497.6	503	.9 mm ~~N.N.~~ NNW
26. 1929	38°05	1189.3	1216	76°49'	491.8	497	1.4 mm ~~N.N.~~ NNW
27. 1929	38°04	1827.6	1837	76°47'	445.3	429	.91 mm ~~E.N~~ ENE
28. 1929	38°02	1394.6	1410	76°45'	1001.8	987	1.06 mm ~~N.E~~ NE
P.T. Sta. 1916 No. 20 ~~NW~~	38°01'	409.5	436	76°50'	512.3	509	1.3 mm ~~N.N.E~~ NNE
T.T Sta. 1929 No. 5-W	38°02'	1053.6	1064	76°51'	1017.5	1026	.6 mm N.W.
T.T. Sta. 1929 No. 8-W	38°04'	899.4	917	76°46'	866.4	902	2.0 mm ~~W.N.~~ WNW
T.T. Sta. 1929 No. 9-W	38°01'	1609.6	1624	76°45'	931.6	921	.8m m N.E.
T.T. Sta. 1929 No. 10-W	38°07	288.9	301	76°47'	82.3	66	1.0 mm N.E

Computed by L.L.C. Checked By O.W.D.

Checked by A.M.D.