

5455

5455

Form 504
Rev. Dec. 1933

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT
Air Photographic
Topographic }
Hydrographic } Sheet No. 7-5455

State Virginia

LOCALITY
Dismal Swamp Canal
Northern Part

Photographs taken July 9, 1937
1938

CHIEF OF PARTY
S. B. Grenell

Applied to Chart 829, Feb. 14, 1938 HRL. (Before Review)

Applied to Chart 1227 August 15, 1940 Same.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. A

REGISTER NO. T-5455

T5455

State Virginia

General locality Dismal Swamp Canal

Locality Lat. 36° 44' to Lat. 36° 34'

Scale 1:20,000 true Date of survey July 9 Photos Summer, 19 37

Vessel Air Photographic Survey Party

Chief of party S. R. Grenall

Surveyed by 9-lens air photographs

Inked by C. F. Chenworth

Heights in feet above ----- to ground to tops of trees

Contour, Approximate contour, Form line interval ---- feet

Instructions dated August 20, 19 37

Remarks: Compiled at Norfolk, Virginia, Nov. 1937 - Jan. 1938

GPO

C. F. Chenworth

①

SHEET NO. T-5455

PHOTO NO. 1750 TO PHOTO NO. 1754

ROUGH RADIAL PLOT S. B. Grenell

SCALE FACTOR S. B. Grenell, 1.00 - 1:20,000

SCALE FACTOR CHECKED G. C. Mast

PROJECTION Washington Office

PROJECTION CHECKED C. F. Chenworth

CONTROL PLOTTED C. F. Chenworth

CONTROL CHECKED G. C. Mast

TOPOGRAPHY TRANSFERRED None

TOPOGRAPHY CHECKED None

SMOOTH RADIAL LINE PLOT S. B. G. - C. F. C.

RADIAL LINE PLOT CHECKED S. B. G. - C. F. C.

DETAIL INKED C. F. Chenworth

AREA DETAIL INKED 91 sq. statute miles

LENGTH OF SHORELINE OVER 200m 3.7 statute miles

LENGTH OF SHORELINE UNDER 200m 2.0 statute miles

GENERAL LOCATION Dismal Swamp Canal - Virginia

LOCATION Lat. 36 44' to Lat. 36 34'

DATUM STATION Wallaceton, 1933 Latitude 36 39' 10.830 (333.8m)
Longitude 76 22' 09.360 (232.5m)

DATUM N. A. 1927

(Adjusted)

*Details on T 5455 are of the date
of the photographs, July 9, 1937.
Aug. 9/1/39*

27

DESCRIPTIVE REPORT
To Accompany Map Drawing No. T-5455

RADIAL LINE PLOT

The standard radial line plot was used. No unusual difficulties were encountered and all control points held. There was but one flight over this area and the mean scale factor on this sheet was 0.981. This was so nearly unity that the projection was made to true scale 1; 20,000.

ADJUSTMENT OF PHOTOGRAPHS

In general the radial points were well selected and of a sufficient number to permit tracing without excessive adjustment by using the various photographs in such a manner as to avoid tracing from photographs where certain areas were greatly affected by tilt. It was necessary to establish a few additional points. These were located by the usual interlacing methods acceptable in flat country, and checked with the existing points.

INTERPRETATION OF DETAIL

The photographs were not particularly clear and some difficulty was experienced in tracing roads through heavily wooded areas. It was also quite difficult to spot buildings in a number of cases. Most of the buildings showed up rather small on this scale, many fail to show under trees, and it was impossible to positively identify others on the unclear pictures; as a result many buildings are not shown on the drawing since only those which could be positively identified were drawn in.

All of the area on the sheet is quite low and flat; even the cultivated areas are but a few feet above the ground water level, which necessitates the use of the intricate system of drainage ditches.

The area to the West of the canal which is shown on chart No. 1227 as cypress swamp is not cypress standing in water. As shown on the overlay sheet, it is a mixture of cane, grass, brush, and timber. The land is very low but seems to be dry except during the wet seasons. This area has probably been drained to some extent by the drainage ditches and the deepening of canals.

Attempt has been made to show the light and heavily wooded sections by the density of the symbols.

East of the canal and near the Northern limit of the sheet is an abandoned logging railroad. The tracks have been ripped up and all that remains is the roadbed and the drainage ditches. It is shown as a double dotted line with the dots staggered. As shown on the overlay sheet, the single bascule of the bridge which carried the track across the canal is now in a permanent vertical position and furnishes a good landmark in the flat country.

COMPARISONS

Comparison was made at the Northern limit of this sheet with a reproduction of map drawing No. T-5149, reduced in scale from 1:10,000 to 1:20,000, and junctions were found to be satisfactory. Likewise comparison was made with map drawing No. T-5456 at the Southern limit. This was an area of very little detail, but the few roads and ditches forming the junction checked very closely.

(3)

From comparison with chart No. 1227, it was found that Herring Canal and Northwest Canal as shown on the chart are merely small drainage canals no larger than the others in the region and of no more importance. The small stream which is the continuation of Northwest River and which is shown on the chart as crossing the Canal, is not in evidence and has probably drained and filled over with underbrush as a result of deepening the Canal and the construction of drainage ditches. Wallacetown as shown on the chart consists of but several buildings along the road and there is nothing to make it conspicuous enough to be given a name.

ACCURACY AND COMPLETENESS

All definite detail has been shown as completely as it could be defined from the photographs and field notes. As was explained in a previous paragraph of this report, many houses have not been shown, and due to the small scale of this sheet and the close spacing of the ditch systems, not all of the ditches have been shown.

Very little detail shown above here → Due to the poor control in this area, no detail north of Lat. 36° 45' is accurate. The roads and head of the small stream, and the section of the Norfolk & Western Railway which fall North of this line are located as accurately as possible merely for general information. *

Upon comparison with reproduction of map drawing No. T-5149, it was found that there is an error in azimuth along the Norfolk & Western Railway, and it is thought that, due to the weak control in this area, the error is on this sheet, and it is recommended that the azimuth as given on map drawing T-5149 be held as correct. *

The control was adequate, the radial intersections excellent and the various check positions showed a smooth uniform plot. In view of the above, it is believed that the probable error of location of definite detail does not exceed one millimeter and is in general, less than this.

LAKE DRUMMOND CANAL

Lake Drummond Canal supplies water to the Dismal Swamp Canal from Lake Drummond. The supply is controlled by the locks near Lake Drummond, the lake being on relatively higher ground, and the Dismal Swamp Canal being higher than the surrounding territory at the locks on both ends.

Approved

S. B. Grenell
S. B. Grenell
H. & G. Engr.

Respectfully Submitted

C. F. Chenworth
C. F. Chenworth
Aid, C. & G. Survey

* The detail north of 36° 45' will be removed from the negatives of T5455 as of insufficient accuracy for publication on a scale of 1:20,000. This detail will remain on the celluloid in Room 2229 for application to chart 1227 and west of 76° 21' - ?

Remarks.

Decisions

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7	<i>Converted into drainage ditch</i>	
8	<i>" " " "</i>	
9	<i>Recommend deletion (D.R.)</i>	
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GEOGRAPHIC NAMES

Survey No.

75455

Name on Survey

	A.	B.	C.	D.	E.	F.	G.	H.	K.	
										1
<u>Deep Creek</u>	X									2
<u>New Mill Creek</u>	X									3
<u>Dismal Swamp Canal</u>	X									4
<u>Lake Drummond Canal</u>				✓						5
<u>Lake Drummond</u>				✓						6
Herting Canal	✓									7
Northwest Canal	✓									8
Wallacetown	✓									9
										10
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										15
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										20
										21
										22
Names underlined in red	approved									23
by <u>HFE</u> on 9/14/39										24
										25
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										27

REVIEW OF AIR PHOTO COMPILATION NO.

Chief of Party: *S. B. Grenell*Compiled by: *C. F. Chenworth*Project: *Dismal Swamp Canal*Instructions dated: *Aug. 20, 1937*

1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b, c, d, e, g and i; 26; and 64) ✓
2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g, n) *No changes noted*
3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and ~~all such surveys are discussed in the descriptive report.~~ (Par. 65; and 66 d, e)
Theodolite and tape traverse for radial plot control
4. Blue-prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28) *None*
5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.
No contemporary surveys
6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c, h, i) *Yes.*
7. High water line ~~on marshy and mangrove coast~~ is clear and adequate for chart compilation. (Par. 16a, 43, and 44)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs."

8. The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41) *None of the above*
9. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)
No objects shown on form 524
10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60) *Form 567 attached to sheet.*
11. All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. ~~Additional information of importance to navigation is given in the descriptive report.~~ (Par. 16c)
12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)
Charted names only are shown.
13. The geographic datum of the compilation is *N.A. 1927* and the reference station is correctly noted.
14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j) *Yes*
15. The drafting is satisfactory and particular attention has been given the following:
 1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report. ✓
 2. The degrees and minutes of Latitude and Longitude are correctly marked. ✓

- 3. All station points are exactly marked by fine black dots. ✓
- 4. Closely spaced lines are drawn sharp and clear for printing. ✓
- 5. Topographic symbols for similar features are of uniform weight. ✓
- 6. All drawing has been retouched where partially rubbed off. ✓
- 7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground. ✓

(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

16. No additional surveying is recommended at this time.

17. Remarks:

18. Examined and approved;

Feb. 1, 1938


Chief of Party

19. Remarks after review in office:

Section of Field Records

Review of T-5455

There are no contemporary planetable or hydrographic surveys, or any previous planetable surveys by this Bureau in the area of T-5455.

T-5455 has been compared with the photographs and is sufficiently complete for chart compilation.

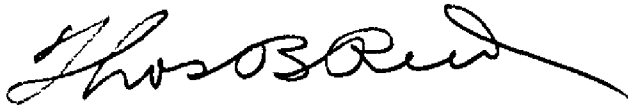
Refer to page 3 of the descriptive report regarding details removed from the printed copies of T-5455, but retained on the celluloid drawing for correction of Chart 1227.


T-5455 was applied to Chart 829 prior to this review. No changes have been made in T-5455 since its application to Chart 827.

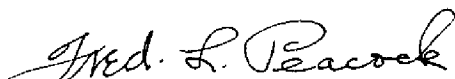
Reviewed by H. D. Reed.

Inspected by B. G. Jones.

Examined and approved:


T. B. Reed,
Chief, Section of Field Records.


K. T. Adams
Chief, Division of Charts.


Fred. L. Peacock
Chief, Section of Field Work.


G. H. de
Chief, Division of H. & T.