

5456

5456

Form 501  
Rev. Dec. 1933  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. PATTON, DIRECTOR

## DESCRIPTIVE REPORT

Air Photographic  
Topographic } Sheet No. T-5456  
Hydrographic }

State Virginia and No. Carolina

### LOCALITY

Dismal Swamp Canal

Photographs taken July 9, 1937

1938

CHIEF OF PARTY

S. B. Grenell

Applied to chart 829 Feb. 14, 1938 H.C.

Applied to chart 1227 Aug. 15, 1940. L.A.M.

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. B

T5456

REGISTER NO. T-5456

State Virginia and North Carolina

General locality Dismal Swamp Canal

Locality Lat. 36° 34' to 36° 24'

Scale 1:20,000 true Date of survey July 9, 1937 ~~Photos summer~~

Vessel Air Photographic Survey Party.

Chief of party S. B. Grenell

Surveyed by 9 - lens air photographs

Inked by A. L. Wardwell

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, Va. Nov. 1937 - Feb. 1938

*A. L. Wardwell*

SHEET NO. T-5456

PHOTO NO. 1754 TO PHOTO NO. 1757

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 G. C. Mast  
CONTROL PLOTTED G. C. Mast  
CONTROL CHECKED A. L. Wardwell  
TOPOGRAPHY TRANSFERRED None  
TOPOGRAPHY CHECKED None  
SMOOTH RADIAL LINE PLOT S. B. G. - A. L. W.  
RADIAL LINE PLOT CHECKED S. B. G. - A. L. W.  
DETAIL INKED A. L. Wardwell  
AREA DETAIL INKED 105 sq. statute miles  
LENGTH OF SHORELINE OVER 200 m. None statute miles  
LENGTH OF SHORELINE UNDER 200 m. 6.1 statute miles  
GENERAL LOCATION Dismal Swamp Canal - No. Carolina  
LOCATION Lat. 36 34 to Lat. 36 24  
DATUM STATION Drummond, 1933 Latitude 36° 33' 01".536 (47.2) ✓  
Longitide 76° 22' 37".449 (931.4) ✓  
DATUM N. A. 1927

(Adjusted)

*Details on T 5456 are of the  
date of the photographs, July 9, 1937*

## REPORT OF MAP DRAWING

T - 5456

### RADIAL LINE PLOT:

The standard radial line plot was used. No unusual difficulties were encountered in the plot, and all control points were held. Only one flight was made for this sheet.

The mean scale factor for this sheet was found to be 0.980. This was so close to unity that the projection was made to true scale 1:20,000.

### ADJUSTMENT OF PHOTOGRAPHS:

The radial points were well picked and but a few additional points were necessary. These were obtained by intersections, as this is flat country, and checked with the adjacent points.

Photograph No. 1757 showed considerable tilt, but the adjacent picture was very nearly true to scale throughout, so that detail was taken from No. 1757 only in the center print. No unusual difficulties were encountered in this sheet.

### INTERPRETATION OF DETAIL:

The photographs were clear for the most part, and no difficulty was experienced in interpreting detail with the aid of the field notes.

Just north of the locks at South Mills, N. C., there is a spillway to take surplus water around the locks from the higher section of the canal to the lower part which runs directly into the Pasquotank River.

The highway drawbridge at South Mills is noted on the overlay sheet. The clear span of this bridge was not obtained, but it leaves clear the entire width of the canal.

About two miles north of South Mills there is a sawmill near the west bank of the canal, and right near it is the remains of an abandoned logging railroad. All that is left is the roadbed and ditches. It is shown by a double line of dots with the dots staggered.

#### INTERPRETATION OF DETAIL ( CONT.):

All of the land covered by this sheet is low in elevation, and very flat. This necessitates a very complete system of drainage ditches in cultivated areas. A good part of the uncultivated part is flooded during wet seasons.

#### COMPARISONS WITH CONTEMPORARY SURVEYS:

The only comparisons possible were at the junctions of this sheet with the adjoining Map Drawings T-5455 and T-5457. There was not much detail at these junctions, but what detail there was checked very closely.

#### COMPARISONS WITH OTHER SURVEYS:

The only other comparison was with Chart No. 1227. No differences were found.

#### ACCURACY AND COMPLETENESS:

All definable detail is shown on the sheet, except that, in some places where the drainage ditches were closely spaced, alternate ditches were left out for the sake of clearness and appearance.

Many buildings in the area covered by this sheet are not shown because surrounding and overhanging trees made it impossible to spot the buildings definitely.

Photograph 1757 was badly tilted, so it was not used to control the plot. It was found necessary to establish an additional control point by tape and theodolite traverse to obtain a good fix for picture 1756. The plot was then run through by holding the pictures on either side of 1757, and then fitting it in between them, adjusting the picture to the control points and the radial points obtained from the other pictures. It is believed that the probable error of location of definite detail does not exceed one millimeter and is for the most part less than that.

Respectfully submitted

*Arthur L. Wardwell*  
Arthur L. Wardwell

Approved:  
*S. B. Grenell*  
S. B. Grenell  
Chief of Party.

# GEOGRAPHIC NAMES

Survey No.

T-5456

Name on Survey

	On Chart No. <u>1227</u>	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
A.	B.	C.	D.	E.	F.	G.	H.	K.	
<u>South Mills</u>	x								1
<u>Dismal Swamp Canal</u>	x								2
<u>Turners Cut</u>	x								3
<u>Pasquotank River</u>	x								4
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Names underlined in red approved

by JHE on 9/14/39

## Remarks.

## Decisions

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REVIEW OF AIR PHOTO COMPILATION NO.

Chief of Party: *J. B. Grenell* Compiled by: *A. L. Wardwell*  
 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*
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) ✓
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 field 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) ✓
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) *No L.W.L.*
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) *None*
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) *None*
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* ✓
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) ✓
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: *Survey is complete as far as can be determined from the photographs.*

18. Examined and approved; *Feb. 4, 1938*

  
Chief of Party

Section of Field Records

Review of T-5456

There are no contemporary planetables or hydrographic surveys, nor any previous planetable surveys by this Bureau in the areas covered by T-5456.

T-5456 has been compared with the photographs and the compilation of details is complete except for buildings, some of which are obscured by trees. This fact will be covered by a note on the printed map. As stated in the descriptive report, due to the close spacing, all ditches are not shown.

T-5456 has been applied to Chart 829. No changes have been made in T-5456 since the date of its application to Chart 829.

Reviewed in the office by H. D. Reed, September 11, 1939.

Inspected by B. G. Jones, September 11, 1939.

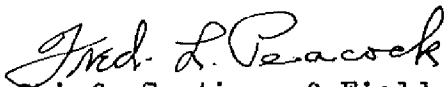
Examined and approved:




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



K. T. Adams  
Chief, Division of Charts.



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



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