

5457

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic } Sheet No. T-5457
Hydrographic }

State NORTH CAROLINA

LOCALITY

PASQUOTANK RIVER

BRICK HOUSE POINT TO

TURNERS CUT

Upper Part

Photographs taken July 9, 1937

1938

CHIEF OF PARTY

S. B. Grenell

U.S. GOVERNMENT PRINTING OFFICE: 1933

5457

Applied before review by others, through BP31339 (Advance print
of T-5457)
Examined after review - AFD, 1/30/43 and applied to Cht 1228.
Applied 1228 - July 1949. L.B.H.

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. T-5457

REGISTER NO.

State North Carolina

General locality Pasquotank River

Locality Brick House Point to Turners Cut

Scale 1:20,000 Date of survey Dec. to Feb., 1937-38.

Vessel Air Photographic Survey Party.

Chief of party S. B. Grenall

Surveyed by _____

Inked by G. C. Mast

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated August 20, 1937.

Remarks: _____



SHEET NO. T-5457

PHOTO NO. 1757
1758

TO

PHOTO NO. 1760
1767

ROUGH RADIAL PLOT S. B. Grenell

SCALE FACTOR 1:20,000

SCALE FACTOR CHECKED G. C. Mast

PROJECTION Washington Office

PROJECTION CHECKED G. C. Mast

CONTROL PLOTTED G. C. Mast

CONTROL CHECKED S. B. Grenell

TOPOGRAPHY TRANSFERRED None

TOPOGRAPHY CHECKED _____

SMOOTH RADIAL LINE PLOT S. B. Grenell

RADIAL LINE PLOT CHECKED G. C. Mast

DETAIL INKED G. C. Mast

AREA DETAIL INKED 100.8 sq. statute miles

LENGTH OF SHORELINE OVER 200m 32.3 statute miles

LENGTH OF SHORELINE UNDER 200m 18.1 statute miles

GENERAL LOCATION Pasquotank River, N. C.

LOCATION Brick House Point to Turners Cut.

DATUM STATION Burnt, 1931

Latitude 36° - 23' 21.78" N

Longitude 76° - 15' 13.66" W

DATUM North American 1927

38.024 (1172.0m)

56.116 (1398.5m)

(adjusted)

Details on T 5457 are of the date
of the photographs, July 9, 1937. Field inspection
added no details later than the photographs
and was made primarily for identification
of control. B.G. Jones 11/15/39.

REPORT OF MAP DRAWING T-5457.

RADIAL LINE PLOT:

The standard radial line plot ~~was~~ used. Some difficulty was encountered in running the plot, especially in the vicinity of Elizabeth City. This was due to the triangulation being on two different data. At the time the plot was run the error was not noted. To get good inter-sections it was necessary to put the pictures in and shade some of the triangulation stations. *See Review at back.*

Triangulation Station Elizabeth 1931 never held on any picture, this was considered to be due to the blurred condition of the edges of the pictures, and the difficulty of tying it in. Worth R. M. No. 1 did not hold on one or two pictures.

The mean scale factor for both flights on this sheet worked out to 1.022. This was so close to unity that the projection was made true scale 1:20,000.

ADJUSTMENT OF PHOTOGRAPHS:

The radial points were well selected and of a sufficient number except in a few places, where there was excessive tilt. Additional points were located at these places by the usual interlacing method acceptable in flat country.

INTERPRETATION OF DETAIL:

The photographs were very clear and no difficulty was experienced in interpreting detail with the aid of the field notes.

All of the land area on the sheet is very low; even the cultivated areas are only a few feet above the ground water level and agriculture is possible only by the use of an intricate system of drainage ditches. No unusual symbols were used.

The heavily wooded area along the Pasquotank River, north of Elizabeth City comes under the general classification of "swamp," but is not flooded except at times of excessive rain fall. Along the water courses the timber is mostly gum and cypress. Back from the water courses the timber is a mixed growth, with considerable pine on the higher ground. The northeast corner of the sheet is cut over timber land with three large ditches running into it, probably ditches thrown up for railroad embankments to get the timber out.

COMPARISONS:

The only sheets available for comparison were the adjoining map drawings, T-5456 and T-5464, the junctions with both these sheets have been carefully checked. A comparison with chart no. 1228 shows that

COMPARISONS CONTINUED:

Sawyers Ferry and Lambs Ferry with the roads leading to them have been abandoned. A large scale map was forwarded from the Washington Office showing two islands at the entrance to Cobbs Creek. These islands are no longer in existence. There are two small clumps of cypress trees standing out in the water that are shown on this sheet.

The shoreline on the southern end of the sheet shows signs of erosion on both sides of the river.

COMPLETENESS AND ACCURACY:

All definite detail has been shown within the limits of the sheet as completely as it could be defined from the photographs and field notes. Many houses have not been shown due to the difficulty of locating them accurately on account of the large trees shading them.

It was thought that the sheet might be out an appreciable amount due to the control being plotted on two different data planes. For this reason a new projection was sent from the Washington Office. On this new projection all the control was plotted on the 1927 North American Datum. And then a smooth radial plot run. This plot was much easier to run than the first one and excellent intersections obtained. A comparison was then made between the sheets. There seemed to be no appreciable difference between the radial points. This is probably due to the grouping of the triangulation on the North American Datum in a small area and the fact that Triangulation Station Gregory 1931 was held on the original plot. It was thought then that the maximum error would be in the vicinity of Triangulation Stations Last 1916, Dare 1916 and Neck 1916. Since these points had been held in tracing the detail. A picture was then put under the new projection and the shoreline and some detail traced on it, ^{and} a comparison made with the original sheet. This did not appear to be out more than the amount of the drafting error. This seems to be due to the fact that the shoreline has a ragged edge caused by cypress standing out in the water and the adjusting between radial points, and lining up the radial points in the direction the detailing was being done. The street system in Elizabeth City was taken from radial points and the Triangulation Station Court House Spire 1916 was not rigidly held in the first plot due to the difficulty of picking it on most of the pictures. All the area covered by chart 829 seems to be within one-half millimeter. The worst disagreement between the two sheets seems to be in the northwest corner of the sheet. In this area only two cuts could be obtained on the new projection, and one of these from photograph 1757, which is the worst tilted photograph in the entire flight.

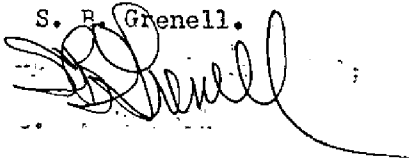
See review at back.

NAMES:

Names appearing on the overlay were all taken from charts 1227 and 1228 with the exception of the towns of Camden and Belcross. These names were obtained from the field inspection party.

Approved and forwarded:

S. B. Grenell.



Respectfully submitted,

G. C. Mast
G. C. Mast.

REVIEW OF AIR PHOTO COMPILATION NO. T-5457

Chief of Party: *S.B. Grenell*Compiled by: *G.C. Mast.*Project: *Pasquotank River, N.C.*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) ✓
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)
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) *See descriptive report relative to new radial plot and Δ datum corrections.*
7. High water line on marshy and ~~mangrove~~ ^{cypress} 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 low water line shown.*
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)~~
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.*
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) *Bridge data can be obtained from publication by U.S.E.D. "Bridges Over Navigable Streams of U.S." - This publication not on hand.*
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. C. S. Quadrangles~~ is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k)
13. The geographic datum of the compilation is *N.A. 1927*^{*} and the reference station is correctly noted.
** See descriptive report relative to Datum.*
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: *Special note should be made concerning comparison between T-5457 and skeleton radial plot run in on control in vicinity of Elizabeth City corrected for Datum.*

18. Examined and approved;

Feb. 28, 1938



Chief of Party

19. Remarks after review in office:

Reviewed in office by:

Examined and approved:

Chief, Section of Field Records

Chief, Section of Field Work

Chief, Division of Charts

Chief, Division of Hydrography
and Topography.

Remarks.

Decisions

1		361760
2		362762
3		362761
4		" USGB
5		"
6		362762
7		362761
8		" USGB
9		363762
10		362761
11		"
12		363761
13		"
14		363762
15	<i>not to be shown.</i>	"
16	Chart 1228, latest print; USE B1.Pr. 1933, 26557/8	"
17		"
18		"
19		"
20		"
21	Chart 1227 (?) USE B1.Pr. 1933, 26,555	"
22		"
23	Chart 1227 (?) USE B1.Pr. 1933, 26,554	"
24		"
25		"
26		"
27		

GEOGRAPHIC NAMES

Survey No. T-5457

GEOGRAPHIC NAMES											
Survey No. T-5457											
Name on Survey											
	A.	B.	C.	D.	E.	F.	G.	H.	K.		
<u>Pasquotank River</u> ✓											1
<u>Elizabeth City</u> ✓											2
<u>Brickhouse Pt.</u> ✓											3
<u>Davis Bay</u> ✓											4
<u>Cobb Pt.</u> ✓											5
<u>Cottage Pt.</u> ✓											6
<u>Hospital Pt.</u> ✓											7
<u>Forbes Bay</u> ✓											8
<u>Knobb Creek</u> ✓											9
<u>Anson Pt.</u> ✓											10
<u>Areneuse Creek</u> ✓											11
<u>Belcross</u> ✓											12
<u>Camden</u> ✓											13
<u>Goat Island</u> ✓											14
<u>Shipyard Bar</u> ✓											15
<u>Shipyard Landing</u> ✓											16
<u>Cooper Creek</u> ✓											17
<u>Possum Quarter Creek</u> ✓											18
<u>Possum Quarter Landing</u> ✓											19
<u>Turners Cut</u> ✓											20
<u>Sawyer Ferry</u>											21
<u>Joes Island Creek</u> ✓											22
<u>Smithson Landing</u> ✓											23
<u>Machelhe I.</u>					L. Heck	12/7/39					24
<u>Reed I.</u>											25
<u>Sawyers Cr.</u>											26
											27

M 234

Remarks.

Decisions

1	For T5457 only	363761
2	"	"
3	"	363762
4	"	"
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GEOGRAPHIC NAMES

Survey No. T 5457

#2.

Name on Survey

	On Chart No.	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.	
Hastings corner									1
Spences corner									2
Lambs corner									3
Burnt Mills									4
									5
									6
	Names underlined in red appear								7
	by L. Heck on 11/29/40								8
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									27

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

TO BE CHARTED }
TO BE DELETED }
STRIKE OUT ONE

Norfolk, Va.

Feb. 25, 1938

I recommend that the following objects which have (*have not*) been inspected from seaward to determine their value as landmarks, be charted on (*deleted from*) the charts indicated.

The positions given have been checked after listing.

[illegible]

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-5457 (1:20,000)

November 15, 1939

T-5457 as ^{received}~~reviewed~~ from the field in March 1938 was plotted on two datums. The 1931 triangulation was on N. A. 1927 datum. The 1916 triangulation, all of which is in the immediate area of Elizabeth City, was plotted on the North American datum. Due to the close grouping of the 1916 stations the original plot was adjusted to closure without finding the error in datums which was found when the sheet was applied to chart 829 about April 1938.

In order to check the error in the original compilation a new projection was made, all control plotted thereon from N. A. 1927 positions, and the photographic plot was rerun. This was done by the field party and was later checked in the office as a part of this review. Comparison of point locations between the new plot and the original showed the error due to the datum difference to be confined to Elizabeth City and vicinity and to amount to about 15 meters in latitude or approximately the datum difference. That is, the area immediately around Elizabeth City was on North American datum and the remainder of the sheet was on N. A. 1927 datum.

The map has been approximately corrected by shifting the Elizabeth City section bodily by the amount of the datum difference, 15 meters or 3/4 millimeter on the map drawing. After shifting this section the edges, lying entirely in the open country outside of Elizabeth City, have been pulled together to make an exact junction of detail.

Recompilation of the entire sheet was considered but rejected because of the fact that the quality and coverage of the photographs are not such as to enable a strong plot and exact detailing to be accomplished.

Due to large tilt in photograph 1757 the plot in the northwest corner of the sheet is very weak. Details in this section have been removed prior to reproduction.

Comparison with Charts 829 (39-4-3) and 1228 (38-10-5)

T-5457 has not been applied to chart 1228.

The corrections noted on this page were made by processing onto a blue line and the entire sheet was redrafted.

* Since T5457 was compiled a Coast Guard
air station has been built at Lat $36^{\circ}16'$ and
Long $76^{\circ}11'$ (approx) This air station does
not appear on the photos and cannot be
located accurately from the Usee. "Weekly Notes
to Airmen 11-14-40, Vol 8 No 23" to be applied to T5457

L.C.R.
6-6-41

T-5457 was applied to the original drawing of chart 829 in April 1938. The errors in T-5457 discussed in the preceding paragraphs were known at the time and were disregarded as too small to be appreciable except in the case of landmarks at Elizabeth City. *See opposite page **

Landmarks were corrected to N. A. 1927 datum and applied to chart 829 as shown in black on the attached Form 567.

Miscellaneous

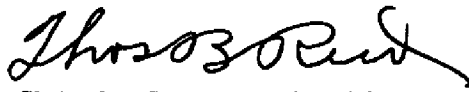
There are no other topographic or hydrographic surveys by this Bureau within the area of T-5457.

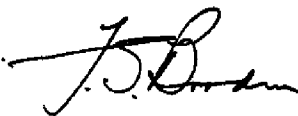
The sheet as now accepted is considered within the accuracy necessary for charting but is not up to usual standards. There may remain errors in location of points of detail from 0 to 15 meters.


Reviewed in office by - H. D. Reed, Nov. 15, 1939


Inspected by - B. G. Jones, November 15, 1939

Examined and approved:


Chief, Surveys Section


Chief, Division of Charts


Chief, Section of Topography


Chief, Division of Coastal
Surveys