

5716

5716

Form 504
U. S. COAST AND GEODETIC SURVEY DEPARTMENT OF COMMERCE
DESCRIPTIVE REPORT
Type of Survey <u>Planimetric Map</u>
Field No. <u>T-5716</u> Office No. _____
LOCALITY
State <u>Maryland</u>
General locality <u>Chesapeake Bay</u>
Locality <u>Choptank River, Lecompte Bay</u>
Photos taken 1937-38. Supplemented by other surveys to April 1941
<u>1940</u>
CHIEF OF PARTY
<u>L. W. Swanson</u>
LIBRARY & ARCHIVES
DATE _____

Applied to Chart 1225, October 1941 - H.T.G.

~~Applied to Chart 553 749 867.~~

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- 5716

REGISTER NO.

State Maryland

General locality Chesapeake Bay Choptank River

Locality Cambridge Lecompte Bay and vicinity

Scale 1 : 10,000 Date of photographs May 1, 1937 &  
May 1, 1938 (single lens)

Vessel Air Photographic Survey Party No. 2

Chief of party L. W. Swanson

Surveyed by Field Inspection by D. A. Jones & J. N. Jones

Inked by J. L. Rihn (Rough draft)

Heights in feet above \_\_\_\_\_ to ground to tops of trees

Contour, Approximate contour, Form line interval \_\_\_\_\_ feet

Instructions dated May 13, 1938, 19\_\_\_\_

Remarks: \_\_\_\_\_

DATA RECORD T-5716

PHOTOGRAPHS

	<u>Numbers</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Altitude</u>	<u>Stage of tide*</u>
1	1342-1345	5/1/37	9:14- 9:45	1:10,000	Unknown	1.2 ft. above M.L.W.
	1416-1418	5/1/37	10:27-10:49	"	"	0.8 ft above M. L. W.
	1424-1426	5/1/37	10:27-10:49	"	"	0.8ft. above M. L. W.
	1656-1659	7/8/37	10:44-11:08	"	"	0.4 ft. above M.L.W.

\* Tide from prediction tables for Choptank River Light, Md. mean range 1.3ft., spring range 1.5 ft.

Camera: U. S. Coast and Geodetic Survey nine lens camera.

Focal length of  $8\frac{1}{4}$  inches

Negatives on file in Washington office.

Single lens pictures covering the area of this sheet were obtained from the Department of Agriculture. They were originally 1:20,000 scale but have been enlarged to a 1:10,000 scale and now measure  $18\frac{1}{2}$  inches square. They were taken on May 1, 1938. The time of the day, the stage of the tide, the altitude of the plane, and focal length of the lens are all unknown.

The numbers are:

ANJ14-23 to ANJ14-25

ANJ14-29 to ANJ14-32

ANJ14-80 to ANJ14-82

ANJ29-7 to ANJ29-9

SUPPLEMENTAL SURVEYS

Graphic control surveys ----- None

Hydrographic surveys ----- None

Field inspection ----- D. A. Jones, Autumn 1939 and  
J. N. Jones, Spring 1941

The details on T-5716 are of the date of the photographs.

GENERAL INFORMATION

Chief of Party ----- L. W. Swanson

Projection by ----- Washington Office (J. P. Dunitch)

Projection checked by -- Washington Office

Control plotted by ----- J. L. Rihn ----- 1/25/41

Control checked by ----- C. Supp ----- 1/27/41

Radial plot by ----- N. Kaslow & J. L. Rihn ----- 2/18/41

Radial points pricked by - W. V. Loon

Additional points by --- J. L. Rihn ----- 3/18/41

Shore line inked by----- J. L. Rihn

Detail (Rough draft) inked --J. L. Rihn

Scale: ----- 1:10,000 (no scale factor)

210  
3 11  
25  
25  
4

### STATISTICS

Area (land) -----21.5 sq. statute miles  
Shoreline (more than 200 meters from opposite shore)----- 32.0 statute miles  
Shoreline (less than 200 meters from opposite shore)----- 15.0 statute miles  
Roads, streams, and trails-----143.0 statute miles  
Time required for detailing shoreline ----- 13.0 working days  
Time required for detailing interior ----- 28.5 working days

### REFERENCE STATION

Layton, 1934

Datum: North American 1927 (adjusted)

Latitude 38° 37' 40.192" (1239.3 meters)  
Longitude 76° 10' 11.428" (276.4 meters)

Maryland system of plane coordinates:  $X = 1,037,160.86 \text{ ft.}$   $Y = 290,414.68 \text{ ft.}$   
*Plotting checked by F.H. McBeth*

DESCRIPTIVE REPORT  
to accompany  
AIR PHOTOGRAPHIC SURVEY SHEET NO. T-5716  
STATE OF MARYLAND  
CHESAPEAKE BAY - CAMBRIDGE

Date of this report ----- June 11, 1941

INSTRUCTIONS:

The topography on this sheet is part of Project HT-215, the instructions for which are dated May 13, 1938.

CONTROL:

The control consists of five stations shown on this sheet by the triangulation symbol. The following is a list of the control and its source:

U. S. Coast and Geodetic Survey

Layton, 1934

Slagle, 1934

Maryland Shell Fish Survey with U. S. C. & G. Survey

Cherry Island water tank, flagstaff, 1910

Seth, 1910

Du Pont, 1910

The reference marks of Seth, 1910 and Slagle, 1934 which were plotted and used are shown by small ink circles. The triangular symbol is not shown for station Seth, 1910 because the reference mark and not the station itself was recovered.

This sheet also had secondary control points obtained from a radial plot of 1:20,000 scale control sheet.

RADIAL PLOT:

A radial plot of 1:20,000 scale control sheet No. 4 was made by the customary celluloid template method. Good radial points were transferred from this 1:20,000 scale plot to the 1:10,000 scale sheets T-5716, T-5719, and T-5720. A total of 18 of these secondary control points were within the limits of T-5716. This gave every picture in this area at least four of these control points.

Tilt was figured for practically every 1:10,000 scale picture in the area covered by these sheets. The amount of tilt for the pictures whose centers fall on T-5716 are as follows:

1343 --- inappreciable

1344 --- 0°-35'

1345 --- 0°-45'

1416 --- 1°-45'

1417 --- 0°-35'

1424 --- inappreciable

1425 --- 1°-30'

1426 --- 1°-22'

1657 --- 2°-13'

1658 --- 1°-46'

1659 --- 0°-52'

### RADIAL PLOT (continued)

When the 1:10,000 scale templates were made, the isocenter was the origin of radials for pictures with 0 -50' or more of tilt, while the mechanical center was the origin of radials for pictures with tilt less than 0 -50'. Therefore mechanical centers of the less tilted pictures were pricked on smoothsheet T- 5716 and isocenters of pictures tilted 0 -50' or more. Photograph No. 1426 is the only exception to this rule having its mechanical center pricked instead of its isocenter.

Even with the tilt figured the laying of the 1:10,000 scale plot for sheets T-5716, T-5719, and T-5720 was extremely difficult. A large portion of the trouble seemed to be that most of the pictures had their outer chambers twisted in various degrees to their center chamber. Because of this, four of the photographs were reprinted and mounted on aluminum. The four photographs, all in the same flight, are Nos. 1416, 1417, 1418, and 1419. In obtaining additional radial points, it was sometimes necessary to orient some of the chambers independently. Of the three sheets whose 1:10,000 scale plots were run together, sheet T-5716 was much weaker than the other two T-5719 and T-5720.

When additional radial points were being cut in, it was found desirable to strengthen some of the points by additional cuts. Consequently some of the Department of Agriculture (A. A. A.) single lens pictures were used to obtain more radials to some of the weak points. It was not necessary to use all of the single lens photographs. The ones that were used have their center pricked on the smooth sheet. Although there was no appreciable tilt in any of these single lens pictures, there was considerable distortion in some of them. The single lens pictures that were used radially are as follows:

ANJ 14-23  
ANJ 14-25  
ANJ 14-30  
ANJ 14-32  
ANJ 14-80  
ANJ 14-81  
ANJ 14-82

Much more pains were taken with the 1:20,000 scale plot of Control Sheet No. 4 and subsequent 1:10,000 scale plots of T-5715, T-5716, T-5718, T-5719, and T-5720 than had been taken heretofore. The calculation of tilt of practically all of the nine lens pictures is some indication of this. The re-printing of four of the nine lens pictures, the request and use of the single lens pictures, the obtaining of additional Field Inspection Stations, and the many times that the various radial plots were layed and relayed is some more evidence of the pains taken with this area.

#### RADIAL PLOT (continued)

Nevertheless, the possible error in the map drawings for this area is noticeably more than had been encountered before. The increase in the possible error is probably due to:

1. The sparseness -extreme on some sheets- of triangulation stations.
2. The poor spacing of the photographs.
3. The large amount and prevalence of tilt in the photographs.
4. Slight disagreements between the projections of the 1:20,000 scale sheet and the 1:10,000 scale sheets
5. Poorer printing of the photographs - i. e. more twist of the outer chambers in relation to the center chamber (see first print of Photograph No. 1416).

#### SCALE:

The scale of this sheet is 1:10,000. There is no scale factor.

#### DETAILING:

The interior or inshore detailing where ever possible was done with the single lens pictures. They were better than the nine lens photos for detail in inshore because the single lens pictures had no appreciable tilt, the single lens pictures were closer to the scale of the sheet, and the single lens pictures had no break in continuity because of mask lines. The single lens pictures were not so good for detailing the shoreline. The enlarging of these pictures from 1:20,000 to 1:10,000 scale meant that the high water line and other shoreline detail was not as sharp as on the nine lens pictures. More over there is a year difference in photographing which made radial points along the shoreline difficult to identify on both sets of photographs.

Except for control and geographic names all information on this sheet was taken from the field inspection notes and the photographs. A new dock at Lat 38 35.1' and Long. 76 07.1' was copied from the field inspection print because that was the only place it was found.

The stereoscope was used to examine all drainage on this sheet. The customary symbols were used for topography. The projection machine was used through out the sheet with both nine and single lens photographs.



COMPARISON WITH PREVIOUS SURVEYS:

1. Chart No. 77 (1936) and Chart No. 1225 (1935) --- Travers Wharf no longer exists and there is now a small island at the entrance to Jenkins Creek but other wise as nearly as could be ascertained, the shoreline agrees with these charts. Because of the large difference in scale, no detailed comparison could be made.

2. Topographic Survey No. T-2494 (1900) --- The projection lines for a N. A. 1927 datum were scaled on this survey so that an accurate comparison could be made.

a. Due to erosion, the shoreline from the western limits of the sheet to Chapel Creek has traveled an average of 50 meters southwardly. Corners wharf no longer exists.

b. The Chapel Creek shoreline and also the Lecompte Creek and Jenkins Creek shoreline have remained essentially unchanged.

c. From Chapel Creek to Castlehaven Pt. the shoreline has eroded from 60 to 100 meters southwardly.

d. The sand bar at Castlehaven Pt. has shifted 60 meters southward and has shortened about 300 meters.

e. The western shore of Lecompte Bay has eroded an average of about 45 meters.

f. The only other point of appreciable erosion is at Horn Pt. which shows the greatest erosion at the tip amounting to 80 meters.

g. The rest of the shoreline of T-2494 and T-5716 shows remarkably good agreement.

h. The inshore detail does not show such good agreement. At some places, the difference amounts to as much as 40 meters.

3. Topographic Survey No. T-2561 (1901) --- The projection lines for a N. A. 1927 datum were also scaled on this survey so that an accurate comparison could be made.

a. The shoreline of T-2561 along Phillips Creek, Beckwith Creek, and the Little Choptank River is in good agreement with this sheet.

b. Lee Creek and Gary Creek show a southward erosion of about 40 meters. Lee Creek just before it widens out seems to have moved south 100 meters.

c. There is very poor agreement of inshore detail both in location and azimuth. The differences in location of topographic features have a maximum of 60 meters.

JUNCTIONS:

Good junctions were made with map drawing T-5715 on the west and T-5719 on the south, Map drawing T-5720 on the east has not been detailed yet. The junction with T-5717 on the north is completely in the water.

NAMES:

The geographic names are on the overlay sheet and are listed on form 234 in the appendix.

LANDMARKS:

Landmarks for this sheet are listed on Form 567 in the appendix.

RECOVERABLE HYDROGRAPHIC AND TOPOGRAPHIC STATIONS:

These stations are indicated by the proper symbol on the rough draft sheet No. T-5716.

REMARKS:

This sheet is believed to be complete in all detail of importance for charting and no additional surveys are required.  
error

The probable error is not greater than five meters for radial points shown in blue on the back of this sheet and well defined objects along the water front. The error of other detail is not greater than ten meters. At Horn Pt. and its immediate vicinity the radial plot is weakest. The probable error for radial points etc. is from 5 to 10 meters.

Respectfully submitted,

*Jack L. Rihn*

Jack L. Rihn  
Senior Photogrammetric Aide (field)

*Forwarded approved*  
*H. W. Swanson*  
*Ch. of Party*  
*6/18/41*

# GEOGRAPHIC NAMES

Survey No. T-5716

On Chart  
No. 1225

On Chart  
No. 1225

On previous survey  
No. T-2494 & T-2561

On U. S. quadrangle  
Maps

From local  
information

State Hwy Map  
On local Maps  
of Dorchester Co. 14

P. O. Guide or Map

Rand McNally Atlas

U. S. Light List

Local Signs

Name on Survey

	A	B	C	D	E	F	G	H	I
✓✓ Choptank River x	x	x	x	x	x			x	1
✓✓ Chapel Creek	x	x	x	1,2,3	x				2
✓✓ Castle Haven Pt. Castlehaven Pt. *	*	#	x	1,3	x			*	3
✓ Lecompte Bay x	x	¢	x	1,2	x				4
✓ Lecompte Creek	x	@	x	1,2	x				5
✓ Horn Pt. x	x	x	x	1,2	x				6
✓ Jenkins Cr.	x	x	x	1,2	x				7
✓ Little Choptank River x	x	x	x		x			x	8
✓ Phillips Cr.	x	&	x	1,2,3	x				9
✓ Beekwith Cr.	x	\$	x	1,3	x				10
✓ Cherry Island	x	x	x	1,2,3	x			x	11
✓ Solomons Cove	x	%	x	1,2,3					12
✓ Gary Cr.	x		*	1,3	*				13
✓ Lee Cr.	x		#	1,3	#				14
✓ Ross Neck	x		x						15
✓ Bar Neck	x		x	1,2,3					16
✓ Morris Neck			x	2					17
✓ Cornersville	x		x	1,2,3	x			x	18
✓ Lloyds	x		x	1,2,3	x			x	19
✓ Travers Whf. x	x		x						20
✓ Corners Wharf			x						21
✓ Town Point Neck									22
									23
									24
									25
									26
									27
									M 234

Name, under  
by L. Heck on 7/16/41

## Remarks

## Decisions

1		385762
2		385762
3	*Castle Haven. # Castlehaven. Also known locally as Castlehaven	386761 - U.S.G.B. (1938)
4	∠ Lecomptes Bay	386761
5	@ Lecomptes Cr.	386761
6		386761
7		385761
8		385762 U.S.G.B.
9	& The printing of Phillips Creek is much lighter than other printing.	385762 U.S.G.B.
10	\$ Beckwiths Cr.	385762
11		385762
12	% Solomons Cove	385761
13	* Carey Cr.	385761 U.S.G.B.
14	# Gaines Creek	385761 U.S.G.B.
15		385762
16		385762
17		385761
18		386762
19		385761
20	This wharf no longer exists.	385761 U.S.G.B.
21	This wharf has not been in existence for many years. (386762)	
22		
23	Local information was obtained from:	
24	1. Mr. L. R. Slacum, Cambridge, Md.	
25	2. Mr. Wm. Kastenhuber, Easton, Md.	
26	3. Mr. W. F. Moore, Oxford, Md.	
27		

REVIEW OF AIR PHOTO COMPILATION NO. T- 5716

Chief of Party: L.W. Swanson

Compiled by: Jack L. Rihn.

Project: HT 215

Instructions dated: May 13, 1939.

Aug. 28, 1939.

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, ~~d~~, e, ~~f~~ 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)

There are no ground surveys.

~~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)

No prints from other sources are forwarded with this Map Drawing.

~~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.

There are 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, ~~f~~, 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)

~~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)

Form 524 is not submitted with this Map Drawing.

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)

~~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)

There are no bridges on this Map Drawing.

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 ~~65~~)

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, ~~47~~)

16. ✓ No additional surveying is recommended at this time.

17. Remarks:

In comparing this Map Drawing with T-2561 it should be noted that the agreement of the shoreline where the Creeks are navigable is exceptionally good; but, at the head waters of the creeks and the inshore detail common to the two surveys the differences are as great as 100 meters.

18. ✓ Examined and approved;

  
Chief of Party

6/18/41

19. Remarks after review in office:

Reviewed in office by:

Examined and approved:

\_\_\_\_\_  
Chief, Section of Field Records

\_\_\_\_\_  
Chief, Division of Charts

\_\_\_\_\_  
Chief, Section of Field Work

\_\_\_\_\_  
Chief, Division of Hydrography  
and Topography

## LANDMARKS FOR CHARTS

**TO BE CHARTED  
~~AT THE EXPENSE OF THE~~** } STRIKE OUT ONE

Baltimore, Maryland June 11, 1941, 1983

I recommend that the following objects which have ~~(been)~~ been inspected from seaward to determine their value as landmarks, be charted on ~~(the)~~ the charts indicated.

The positions given have been checked after listing.

F. L. L. in hand. L. W. Swanson. L. W. Swanson. 352411

*Chief of Party.*

[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 sheets. Information under each column heading should be given.



DIVISION OF PHOTOGRAMMETRY  
REVIEW OF PLANIMETRIC MAP T-5716

Radial Plot:

The radial plot is described in detail in the descriptive report. It was accepted without checking in this office.

Field Inspection and Detailing:

Adequate

Comparison with Previous Surveys:

T-5716 is complete and adequate to supersede those sections of the following old surveys which it covers:

T-225	1:20,000	1847
T-250	1:20,000	1847
T-253	1:20,000	1848
T-2494	1:20,000	1900
T-2561	1:20,000	1901

Comparison with Nautical Charts:

T-5716 was applied to Chart 1225 prior to this review. No changes were made during the review of importance to the chart.

Reviewed under direction of D. H. Benson, June 1942

Review report prepared by B. G. Jones, July 1946, from reviewer's notes.

NOTE:

T-5716 was compiled in 1941 and reviewed in 1942, but processing in the Washington Office was not completed until July 1946 because of war map work of the Bureau. Meanwhile, the Coast and Geodetic Survey produced topographic quadrangles (manuscript scale 1:20,000) for the War Department of this same area. Planimetric details from T-5716 were used as a base in preparing quadrangles T-8242, T-8243, and T-8249, which were completed in 1943. These quadrangles are more recent and more complete as regards map details than T-5716, but are at a smaller scale.

APPROVED BY:

*B. G. Jones*

B. G. Jones, Technical Asst.  
Div. of Photogrammetry

*Robert W. King*

Chief, Nautical Chart Branch  
Division of Charts

*K. T. Adams*

Chief, Div. of Photogrammetry

*Raymond B. Egan*

Chief, Div. of Coastal Surveys

## NAUTICAL CHARTS BRANCH

SURVEY NO. T 5716

### 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.