

5695

5695

Form 504 Rev. April 1935	
DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Air Photographic Survey	
XXXXXXXXXX	Sheet No. T-5695
XXXXXXXXXX	
State Maryland	
LOCALITY	
Chesapeake Bay	
Tolchester Beach and Vicinity	
Date of photographs May 1, 1937	
July 8, 1937	
1940	
CHIEF OF PARTY	
L. W. Swanson	

Applied to Chart drawing 549 May 28, 1941. HEM.

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-5695

REGISTER NO.

State Maryland

General locality Chesapeake Bay

Locality Tolchester Beach

Scale 1:10,000 x 0.955 DATE OF SURVEY May 1, 1937 & July 8, 1937 19

Vessel Air Photographic Survey Party No. 2

Chief of party L. W. Swanson

Surveyed by Field inspection by W. C. Russell and D. A. Jones

Inked by J. L. Rihn (Rough draft); D. A. Jones (Shore line)

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated _____ May 13, 1938

Remarks: _____

DATA RECORD T-5695

PHOTOGRAPHS

Numbers	Date	Time	Scale	Altitude	Stage of tide*
1365-1367	5/1/37	9:14-9:45	1:10,000 x 0.955	Approx 6875 ft	1.2 ft. above M.L.W.
1396-1398	5/1/37	10:17-10:24	"		1.3 ft. above M.L.W.
1472-1473	5/1/37	2:18-2:25	"		0.8 ft. above M.L.W.
1678-1680	7/8/37	10:44-11:08	"		1.3 ft. above M.L.W.

* Tide from predicted tables for Tolchester Beach, Md. mean range 1.3 ft., spring range 1.5 ft.

Camera: U. S. Coast and Geodetic Survey nine lens camera.
Focal length $8\frac{1}{4}$ inches.
Negatives on file in Washington office.

SUPPLEMENTAL SURVEYS

Graphic control surveys ----- None
Hydrographic surveys ----- None
Field inspection :--W. C. Russell and D. A. Jones ---- Fall, 1939

The details on T-5695 are of the date of the photographs with the exception of minor items noted in the last paragraph of the review.

GENERAL INFORMATION

Chief of Party --- L. W. Swanson
Projection by: ---Washington Office ---- Ruling machine --- 5/4/39
Projection checked by: --- Washington Office ----- 5/4/39
Control plotted by: ---W. C. Russell ----- 5/8/39
Control checked by: -- R. A. Gilmore----- 5/9/39
Radial plot made by: --- R. A. Gilmore and W. C. Russell ----- 5/17/39
Radial points pricked by: W. C. Russell and R. A. Gilmore
Additional radial points by: J. L. Rihn
Shoreline inked by: --- D. A. Jones
Detail (rough draft) inked by: --- J. L. Rihn -----9/19/40
Scale: ---- 10,000 x 0.955

Statistics

Area (land)	25.0 sq. statute miles
Shoreline (more than 200 meters from opposite shore)	7.0 statute miles
Shoreline (less than 200 meters from opposite shore)	5.0 statute miles
Roads, streams, and trails	166.0 statute miles
Time required for detailing	40.0 working days

REFERENCE STATION

Clough, 1896, 1933 Datum: North America 1927 (Adj.)

Latitude: $39^{\circ} 12' 06.132''$ (189.1 meters)
Longitude: $76^{\circ} 11' 27.492''$ (659.7 Meters)

Maryland system of plane coordinates: x Y

x coordinate: 1,029,272.68 FT.
y coordinate: 499,353.15 FT.

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DESCRIPTIVE REPORT
to accompany
AIR PHOTOGRAPHIC SURVEY SHEET NO. T-5695
STATE OF MARYLAND
CHESAPEAKE BAY-TOLCHESTER BEACH

Date of this report -----September 23, 1940

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 ten 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 Triangulation

Tol, 1935	Tolchester 1927 (Ches. B. Brdg. Co)
Lee, 1935	East 1927 (Ches. Bay Bridge Co)
Clough, 1896 1933	
Chy., Center, Yellow House, 1935	↑ added in office, but not used to control photos.
Cupola, Red Barn, 1935	
Cupola, Ferry Wharf, 1935	
Light, Ferry Wharf, 1935 1936	
Mitchells Bluff, Tower No. 11, 1918 1933	
Gales Farm, Tower No. 12, 1919 (adjusted)	
Top White Silo, 1935	

Reference marks for stations Tol, 1935, Lee, 1935, and Clough, 1896 1933 were also plotted because they were much easier to prick than the stations themselves. They are shown by small blue squares.

When the radial plot was run, it was found that stations Cupola, Ferry Wharf, 1935 and Light, Ferry Wharf, 1935 1936 could not be held. These two stations were destroyed by storm

RADIAL PLOT:

The radial plot for this sheet was run in conjunction with that of sheets 5692, 5698, 5701, and 5703. A description of the radial plot is given in the descriptive report for sheet 5698.

SCALE:

The scale of this sheet is 1:10,000 x 0.955. The results of the scale plot can be found in the descriptive report for sheet 5692.

DETAILING:

Except for control and geographic names, all information on this sheet was taken from the field inspection notes and from the photographs. The number and spacing of the photographs were quite adequate for detailing.

COMPARISON WITH PREVIOUS SURVEYS:

1. Chart No. 549 (1938) -- As nearly as could be ascertained, the shoreline agrees with that of Chart No. 549. Because of the large difference in scale, no detailed comparison could be made.

2. Map Drawing No. T-5427 (1933) -- The shoreline and inland topographic features agree remarkably well

3. Map Drawing No. T-5428 (1933) -- The fast shoreline agrees fairly well although in some places erosion has caused a difference of ten meters and in one place twenty meters. Much of the shoreline in marshy areas has changed twenty to thirty meters. Roads and other inland topography are in good agreement.

4. (U. S. G. S. Quadrangle "Chestertown, Md.") ⁽¹⁹⁰¹⁾ An examination of this map shows a conflict with both the existence or nonexistence of some of the roads and also the location of the drainage.
No comparison needed because of date of the quadrangle

JUNCTIONS:

Good junctions were made with map drawing T-5692 on the north and map drawing T-5698 on the south. T-5699, also on the south, has not been detailed yet. Considerable difficulty was encountered in making a good junction of radial points with map drawing T-5696 on the east, because of the large difference in scale factors: 0.955 for T-5696 and 1.000 for T-5698. This was overcome by the use of a Dummy sheet and the projecting machine.

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. *Turned over to Nautical Charts Section 7/31/41*

RECOVERABLE HYDROGRAPHIC AND TOPOGRAPHIC STATIONS:

These stations are indicated by the proper symbol on the rough draft sheet No. T-5695.

REMARKS:

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

intersected 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. *See note in revision number under "radial plot."*

Respectfully submitted,

Jack L. Rihn

Jack L. Rihn
Photogrammetric Aide (Field)

Formal Approval
Oct 3, 1940
L. W. Savage
Ch. of Party

GEOGRAPHIC NAMES

Survey No. T-5695

GEOGRAPHIC NAMES		Survey No. T-5695									
Name on Survey		On Chart No. 548 On Chart No. 1226 On previous survey No. On U. S. quadrangle Maps From local information Highway Map of Kent Co. Md. On local maps F. Mc. (1887) or Map Lake, Griffiths, Stevens. G. J. Rand McNally Atlas U. S. Light List On Chart No. 549									
		A.	B.	C.	D.	E.	F.	G.	H.	K.	
Chesapeake Bay	x	x	x-5428	x	x	x	x	x		x	1
Tolchester Beach		x	x "	x	x	*		x	*	x	2
Mitchell Bluff		x	x "		x					x	3
Fairlee Creek		x	x "	x	x	x	#				4
Georgetown		x	x "	x		x					5
Tavern Creek	x	x	x-5427	x	x	x				x	6
Swan Creek	x	x	x "	x	x	x	x			x	7
Shipyard Creek	x	x	x-2291	x	x	x					8
Poplar Neck	x	x	x "	x	x						9
West Fork	x	x	* "	x	x	x	x				10
Fairlee		x		x		x	x	x			11
Sandy Bottom				x		x					12
Langford				x		x	@				13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27
											M 234

Remarks

Decisions

1		U.S.G.B
2	* Only the word "Tolchester"	392762
3		"
4	# Fairlee's Creek	392762 U.S.G.B
5		392761
6		391762
7		"
8		391761
9		391761
10	* West Arm of Langford Creek	"
11		392761 U.S.G.B.
12		391761
13	@ Lankford	391761 U.S.G.B
14		
15		
16	Previous surveys nos. 5428 & 5427 were made in 1933;	
17	survey no. 2291 was made 1897-1905.	
18		
19		
20		
21	by L. Heck on 3/18/41	
22		
23		
24		
25		
26		
27		
M 234		

REVIEW OF AIR PHOTO COMPILATION NO. T 5695

Chief of Party: L. W. Swanson

Compiled by: Jack L. Rihn.

Project: H. T. 215

Instructions dated: May 13, 1938

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, f~~ and ~~g~~; 28; 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. 28; and 66 ~~g, h~~)
See remarks this review.
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)
None
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)
See Report T 5698
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)
- 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)
- ~~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 ~~65k~~)
- ~~13.~~ The geographic datum of the compilation is N. A. 1927 adj. 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: Cupola Ferry Wharf, 1935 and Light Ferry Wharf, 1935 were destroyed by storm during 1936. There is considerable change in the ferry wharf at Tolchester.
The greatest change along shore of Chesapeake Bay, approximately 20 meters, is in Latitude 39 13.9 to 39 14.1.
Some changes were noted in the upper reaches of Fairlee Creek.

18. Examined and approved;

Oct. 3, 1940

L. W. Swanson
Chief of Party

19. Remarks after review in office:

Reviewed in office by:

Examined and approved:

Robert W. King
Chief, Section of Field Records

Frederic L. Peacock
Chief, Division of Charts
Topography Section

J. S. Bond
Chief, Section of Field Work

G. H. de
Chief, Division of Hydrography
and Topography.

Division of Charts
Surveys Section

Review of Air Photographic Survey T-5695
July 28, 1941

There are no contemporary graphic control surveys in this area.

Comparison with Hydrographic Surveys

H-6372 1/10000 Sept.-Oct. 1938

Only the upper reaches of Fairlee Creek are common to both surveys. The shoreline is the same for both surveys.

H-6374 1/10000 Sept 1938

The shoreline for H-6374 was taken from air photographic survey sheets T-5427 and T-5428 (1933). There are shoreline differences between H-6374 and T-5695 up to 20 meters where the shore is gradually wearing away.

The Folkestone ferry wharf has been changed somewhat in shape and the location of "Ferry" ^{on H-6374} Light Ferry wharf is about 1 mm. (10 meters) north of that shown on T-5695. The Descriptive Report T-5695 states that the light was destroyed by storm and relocated, the new position being reported on form 567.

Several fences extending into the water, some fish stakes, a rock crush, and two short piers

are shown on H-6314 but are not shown on T-5695 as they could not be identified on the photographs and are not mentioned in the field report which is later than the hydrographic survey. It is not recommended that the photographs of H-6314 be copied to agree with T-5695 since H-6314 has been examined and approved for comparison with T-5428 (Air Photo Compilation) 1/10000.

Chesapeake Bay shoreline coincides in places and at other places apparently has receded from 10 to 20 meters. There are changes (recession) up to 20 meters in the shoreline of Fannie Creek, both along cliffs and marshy areas.

The interior detail has not changed appreciably but on T-5695 the drainage lines have been delineated in fuller detail than on T-5428.

The slope of the Solentec Ferry wharf has been changed since the earlier compilation and the two triangulation stations formerly located on the wharf have been destroyed according to a note on the field inspection print.

T-5695 supersedes T-5428 for charting purposes.

Comparison with T-5427 (Air Photo Compilation) 1/10000 - 1933

The shoreline of the two sheets were practically identical and there is no conflict in the interior details, although T-5695 shows the drainage in greater detail than T-5427.

T-5695 supersedes T-5427 for charting purposes.

Comparison with U.S.G.S. Quadrangle 'Chester town' - 1/62500 (1901)

While the Descriptive Report states there are conflicts in the locations of roads and drainage between the U.S.G.S. quadrangle and T-5695, no important differences could be found in this office. The quad was compiled from a 1900 survey, and there have been some road changes since that time, but most of the roads appearing on the quad are still in existence. T-5695 shows the drainage in greater detail than the quadrangle, but cannot be said to conflict with it.

Comparison was not made with earlier C. & G. S. topographic surveys as T-5427 and T-5428 superseded the earlier surveys except for contour lines.

Charts 549 + 1226

T-5695 was applied to chart 549 May 28, 1941. no important changes have been made to T-5695 since its application to the chart.

Radial plot

The radial plot for this area is discussed in detail in the descriptive report accompanying T-5698. The control for the sheet west of $76^{\circ}10'$ was sufficient for a strong plot but east of $76^{\circ}10'$ it was necessary to make adjustments of as much as 1.5 mm. in some radial points. It is probable that radial points on the western part of the sheet are within $\frac{1}{2}$ mm. of correct position while those on the east are within 1 mm. of true position.

Field inspection & Detailing

The field inspection and detailing of T-5695 are complete.

Some revision of approximate stream lines through wooded ravines was made after careful inspection of the photographs under the stereoscope. Several fence lines were corrected by radial

plotting and a few buildings were added.

The detailing is as of the date of the photographs except for small drainage inlets along the shoreline which have closed up since the photographs were taken, and the shape of Solihastan ferry wharf, which were changed in accordance with field inspection notes made in the fall of 1939.

Reviewed in office by D. H. Benson July 30, 1941
Inspected by B. G. Jones

usual signatures

PLANE COORDINATE GRID SYSTEM

Positions of grid intersections used for fitting the grid to this compilation were computed by Division of Geodesy and the computation forms are included in this report.

Positions plotted by N.L. Wilansky

Positions checked by J.P. Danich

Grid inked on machine by N.L. Wilansky

Intersections inked by E. Holz

checked by J.P. Danich.

Points used for plotting grid:

$\theta = 39^\circ 14' 42.4002''$ $x = 1,010,000$ $\theta = 39^\circ 13' 02.3153''$ $x = 1,025,000$
 $\lambda = 76^\circ 15' 30.6919''$ $y = 515,000$ $\lambda = 76^\circ 12' 21.1421''$ $y = 505,000$

$\theta = 39^\circ 14' 39.8197''$ $x = 1,040,000$ x
 $\lambda = 76^\circ 09' 09.3828''$ $y = 515,000$ y

$\theta = 39^\circ 11' 24.7230''$ $x = 1,010,000$ x
 $\lambda = 76^\circ 15' 32.7551''$ $y = 495,000$ y

$\theta = 39^\circ 11' 22.1445''$ $x = 1,040,000$ x
 $\lambda = 76^\circ 09' 11.7408''$ $y = 495,000$ y

Triangulation stations used for checking grid:

- C/ough, 1896-1933 1. $\theta = 39^\circ 12' 06.132''$ $x = 1,029,272.48$ 5. _____
 $\lambda = 76^\circ 11' 27.492''$ $y = 499,353.15$
- Eosf, 1927 2. $\theta = 39^\circ 12' 17.823''$ $x = 1,013,036.14$ 6. _____
 $\lambda = 76^\circ 14' 53.630''$ $y = 500,397.19$
- Steel Tower #13, 1918 3. $\theta = 39^\circ 10' 50.626''$ $x = 1,008,099.23$ 7. _____
 $\lambda = 76^\circ 15' 57.250''$ $y = 491,534.30$
- Mitchell's Bluff, '31 4. $\theta = 39^\circ 13' 26.876''$ $x = 1,015,512.12$ 8. _____
 $\lambda = 76^\circ 14' 21.446''$ $y = 507,302.97$