

5426

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

FEB 28 1936

Acc. No.

Form 504 Rev. Dec. 1933	
DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY R. S. PATTON, DIRECTOR	
DESCRIPTIVE REPORT	
Air Photo Topographic Hydrographic	Sheet No. 5426
State Maryland	
LOCALITY	
Chesapeake Bay	
Hart Island Miller Island	
Project No. HT-175	
19353	
CHIEF OF PARTY	
J.C. Partington Jr. H. & G.E.	

U. S. GOVERNMENT PRINTING OFFICE: 1934

5426

Applied to New Comp of Chart 544 May 24-1939 Chas R Bush Jr

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

REG. NO.

AIR PHOTO
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. 5426

REGISTER NO.

State Maryland

General locality Chesapeake Bay

Locality Hart Island - Miller Island

Date of Photographs November 16, 1933

Scale 1:10,000 Date of ~~Survey~~ Compilation July 16, 1935

~~Vessel~~ Photo Compilation Party # 25

Reviewed and recommended for approval

Chief of party Lieut. (J.G.) J.C. Partington, July 17, 1935

Photographs plotted by R.D. Cross, December 17, 1934

Inked by B.W. Waltrup, A.F. Gerrito July 16, 1935

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

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

Instructions dated March 14, 1934, 19.....

Remarks: Compilation of aerial photographs Nos. 84-100; 111-128

Blue print only, scale 1:4671 filed 2/23/36

-STATISTICS-

on

SHEET, FIELD NO. 5426, REG. NO. 7-5426

PHOTOS, NO. 84 to 100

DATE OF PHOTOGRAPHS November 16, 1933

10:15 A.M. to 12:00 Noon

	BY	DATE FROM	TO
ROUGH RADIAL PLOT	S.M. Stoler	9-27-34	10- 3-34
SCALE FACTOR (1.034)	S.M. Stoler	10- 1-34	10- 3-34
SCALE FACTOR CHECKED	<i>R.D. Cross</i> R.D. Cross	10- 5-34	10- 5-34
PROJECTION	<i>R.D. Cross</i> R.D. Cross	11- 9-34	11- 9-34
PROJECTION CHECKED	<i>J.W. Seager</i> J.W. Seager	11- 9-34	11- 9-34
CONTROL PLOTTED	<i>R.D. Cross</i> R.D. Cross	11-10-34	11-10-34
CONTROL CHECKED	<i>J.W. Seager</i> J.W. Seager	11-10-34	11-10-34
TOPOGRAPHY TRANSFERRED	No recent data available.		
SMOOTH RADIAL LINE PLOT	<i>R.D. Cross</i> R.D. Cross	12-13-34	12-17-34
RADIAL LINE PLOT CHECKED	<i>J.C. Partington</i> J.C. Partington	12-18-34	12-18-34

PROJECTION DIAGRAM

Sheet No. 5426

Scale = 1:10,000

Scale Factor = 1.034

Distances Multiplied by Scale Factor are Given in Red.

- - - - -

76° 25'	24'	23'	22'	21'	76° 20'	19'	18'	17'
17'				(1486.9) 1438.0 (3826.4) 3700.6	(2973.8) 2876.0	(4460.8) 4314.1	(5947.7) 5752.1	17'
16'				(1487.3) 1438.4 (1913.2) 1850.3	(2974.5) 2876.7	(4461.8) 4315.1	(5949.1) 5753.5	16'
39°15'				(1487.6) 1438.7	(2975.2) 2877.4	(4462.8) 4316.1	(5950.6) 5754.9	39°15'
14'				(1488.0) 1439.1	(2976.0) 2878.1	(4464.0) 4317.2	(5951.9) 5756.2	14'
13'				(1488.3) 1439.4	(2976.7) 2878.8	(4465.0) 4318.2	(5953.4) 5757.6	13'
76° 25'	24'	23'	22'	21'	76° 20'	19'	18'	17'

Layout by R.D.C.
Checked by J.F.B.

SHEET NO. 5426

SCALE FACTOR COMPUTATIONS

Photos 84-106

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Measured Distance</u>	<u>Computed Distance</u>	<u>Scale Factor Meas./Comp.</u>
Miller 1934*		Hart 1934*	2835	2719	1.043
Miller 1934*		Craighill Channel Rear Range Light 1896 r'34 *	4817	4630	1.040
Miller 1934*		Bay Shore Cupola 1915	8651	8314	1.040
Miller 1934*		North Point Lower Lighthouse 1842	10662	10243	1.041
Miller 1934*		Lynch 1934	7605	7314	1.040
Miller 1934*		Clay 1934*	5397	5190	1.040
Craighill Chan-Lynch 1934 nel Rear Range Light 1896 r'34*			4542	4376	1.038
Craighill Chan-Bay Shore Cupola nel Rear Range 1915 Light 1896 r'34*			3838	3688	1.041
Craighill Chan-Broring 1933 r'34* nel Rear Range Light 1896 r'34			6620	6645	1.043
Craighill Chan-North Point Lower nel Rear Range Lighthouse 1842 Light 1896 r'34			5846	5616	1.041
Broring 1933 r'34 *		North Point Lower Lighthouse 1842	11815	11331	1.043
Broring 1933 r'34 *		Bay Shore Cupola 1915	10100	9682	1.043
Broring 1933 r'34 *		Lynch 1934	6899	6628	1.041
Lynch 1934		Bay Shore Cupola 1915	5128	4922	1.042
Hart 1934*		Craighill Channel Rear Range Light 1896 r'34	2131	2057	1.036

SHEET NO. 5426

SCALE FACTOR COMPUTATIONS

Photos 84-106 (Cont'd)

- - -

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Measured Distance</u>	<u>Computed Distance</u>	<u>Scale Factor Meas./Comp.</u>
Hart 1934*		Broring 1933 r'34*	4650	4440	1.047
Hart 1934*		Bay Shore Cupola 1915	5937	5710	1.040
Average Scale Factor				=	<hr/> 1.041

This average scale factor is computed for the entire flight but only part of this flight (84-100) falls on the tracing area of the sheet.

Triangulation stations marked (*) fall on this sheet.

Scale Factor used for sheet was 1.034 in order to agree with adjoining sheets.

Computed by S.M.S. 10/3/34
Checked by R.D.C.

SHEET NO. 5426

CONTROL DATA

- - -

Station	North American 1927 Datum				x Scale Factor
	°	'	"	M.	m.
Broring 1933 r'34	39	17	07.087	(1631.8) 218.5 (43.6)	(1687.3) 225.9 (45.1)
	76	22	58.179	1394.4	1441.8
Clay 1934	39	14	50.666	(287.9) 1562.4 (82.2)	(297.6) 1615.5 (84.9)
	76	24	56.579	1356.9	1403.0
Craighill Channel Rear Range Light 1896 r'34	39	13	44.108	(490.1) 1360.2 (454.0)	(506.7) 1406.4 (469.4)
	76	23	41.074	985.2	1018.7
Hart 1934	39	14	43.136	(520.1) 1330.2 (1411.2)	(537.7) 1375.4 (1459.2)
	76	23	01.163	21.9	28.8
Hawk 1934	39	15	45.983	(432.3) 1418.0 (58.1)	(446.9) 1466.2 (60.1)
	76	23	57.576	1380.6	1427.5
Miller 1934	39	15	31.976	(864.2) 986.1 (796.3)	(893.5) 1019.5 (823.3)
	76	21	26.792	642.4	664.2

All above stations computed directly on N.A. 1927 Datum

DESCRIPTIVE REPORT

To Accompany

PHOTO COMPILATION SHEET NO. 5426

Chesapeake Bay: Miller Island -- ~~Hart Island~~

Instructions Dated March 14, 1934

- - - -

1. GENERAL INFORMATION: *

- (a) Title. Refer to Title Sheet.
- (b) Statistics. Refer to Statistics Sheet.
- (c) No general report covering this area is available. The area is bounded on the north by the $39^{\circ} 17' 00''$ parallel, on the east by the $76^{\circ} 21' 00''$ meridian, on the south by the $39^{\circ} 13' 00''$ parallel, and on the west by the $76^{\circ} 25' 00''$ meridian.

This territory is located where Back River empties into Chesapeake Bay. All the land on the south side of the river mouth is very low and marshy except for a small strip on Cuckold Point. On the north side of the river mouth the land is somewhat higher and is largely covered by trees.

In this area the water is very shallow near the shore and at nearly all points there is a wide sand beach that is bare at low water.

- (d) The following photographs were used in plotting this sheet:

<u>Photo Numbers</u>	<u>Flight Strip Location</u>	<u>Date</u>	<u>Time</u>	<u>Stage of Tide</u>
84 to 100	Over Cuckold Point, Hart Island and Miller Island.	11-16-33	10:15 AM to 12:00 Noon	High--5:23 AM Low--11:41 AM

- (e) Refer to Statistics Sheet.

2. CONTROL: *

- (a) Sources:

The triangulation stations shown on the celluloid were obtained from the following sources:

Broring 1933 r'34,	Lieut. Roland D. Horne, Project No. G-136
Clay 1934	Lieut. John A. Bond, Chesapeake Bay, Back River
Hart 1934	Same
Hawk 1934	Same
Miller 1934	Same
Craighill Channel Rear Range Light 1896, r'34	Same

DESCRIPTIVE REPORT

SHEET NO. 5426

- - - -

All of the above stations are on N.A. 1927 Datum and they furnished sufficient control for plotting the sheet.

(b) Errors:

The stations Hawk 1934 and Broring 1933 r'34 were pricked in error on the photographs by the field inspection party. This error was due entirely to very dim photographs making it impossible to identify objects near the stations. These stations were not used in running the radial plot.

(c) Discrepancies:

No discrepancy in position of any control station was found in running the plot.

3. COMPILATION: *

(a) Method:

On the western side of Hawk Cove all the shore line shown to the north of Station Hawk 1934 was obtained from an aluminum plane table sheet compiled by Lieut. (j.g.) J.C. Partington in 1935. This planetable sheet is known as Topographic Sheet "A" and will be forwarded to the Washington Office at a later date. The shore line was traced on the celluloid directly from the planetable sheet. This work was done because the above area is so far out on the wing photos that it cannot be accurately compiled by radial plot. The inland detail in this area such as houses, trees, roads, etc was located by radial plot but is considered to have a probable error in position of approximately 10 meters due to the dimness of the pictures from which they were traced. (Sheet "A" is T-6335).

In all other sections the usual radial line method of compilation was used.

(b) Adjustment of Plot:

No adjustment of plot was necessary.

(c) Interpretation:

Attention is called to the northwestern corner of the compilation. This section consisting of a little over one square mile of territory and extending to the north and west of station Hawk 1934 is partially covered by the wing prints of two flights. These flights are:

Photographs 84 to 106 located over Hart Island and Miller Island.

Photographs 107 to 137 located between the 76° 26' and the 76° 27' meridians.

This area is so far out on the wing photos of the above flights that the territory cannot be accurately compiled from these photographs. See paragraph 3, sub-paragraph (a) for the method of compilation.

* N.B. The paragraphs (numbers and letters) listed refer to those shown on pages 22 and 23 of Notes on Compilation of Planimetric Line Maps.

DESCRIPTIVE REPORT

SHEET NO. 5426

- - -

It should also be mentioned that it is very difficult to locate the high water line on the photographs because a wide sand beach that is bare at low water extends along the entire shore line. The high water line was located on the photographs by field inspection and was then transferred to the celluloid.

(d) Information from other sources:

The shore line for the northwestern part of the sheet was transferred from an aluminum plane table sheet ^{T-6335} to this compilation as mentioned under paragraph 3, sub-paragraph (a).

All other information except names was obtained directly from the photographs.

(e) Names:

The names shown on the overlay were obtained from the following sources:

U.S. Geological Survey, Gunpowder Quadrangle and North Point Quadrangle.

U.S. Coast and Geodetic Survey Topographic Sheet No. 2308.

U.S. Coast and Geodetic Survey Chart No. 549.

The only discrepancy in names is that for Claybank Point. This is called Claybank Point on Chart No. 549 and on U.S. Geological Survey, North Point Quadrangle, but is called Clay Bank on U.S. Coast and Geodetic Survey topographic sheet No. 2308. It is recommended that the name Claybank Point be used.

No additional names are recommended in this area.

4. COMPARISON WITH OTHER SURVEYS:

- (a) Junctions with adjoining sheets have been examined and are satisfactory.
- (b) The latest topographic sheet of this area is the U.S. Coast and Geodetic Survey topographic sheet No. 2308 compiled in 1897-98. So many changes have occurred in this area since 1897 that a comparison of detail will be of no value.

5. LANDMARKS:

- (a) No additional landmarks or recoverable objects were recommended in this area by the field party.

* A better estimate of the accuracy of this compilation would be from 0.3 to 0.5 mm. for intersected points and from 0.5 to 1.0 mm for non-intersected points.

Sam.

DESCRIPTIVE REPORT

SHEET NO. 5426

- - -

- (b) Form No. 507 is enclosed herewith showing the objects which should be charted as landmarks.

6. RECOMMENDATIONS FOR FURTHER SURVEYS:

*(see opposite page). **

- (a) The compilation is believed to have a probable error of 3 meters in position of well defined detail of importance for charting and of 5 meters for other data except in the northwestern corner where the inland detail may be in error by 10 meters. (See paragraph 3, sub-paragraph (a).).

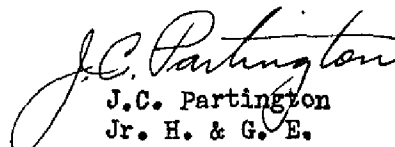
- (b) The width of roads has been exaggerated where necessary in order to procure well defined lines when the sheet is reproduced.

All the houses have been shown except where they could not be identified clearly on the photographs. The areas where all houses are not shown are indicated by notes on the overlay.

7. RECOVERABLE OBJECTS:

There is no available record of any described topographic stations in this area and no additional objects were recommended by the field party.

Respectfully submitted,


J.C. Partington
Jr. H. & G. E.
Chief of Party

Remarks

Decisions

1		
2		
3		
4		
5		
6		
7	Bal not Bol	
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES

Survey No.

T-5426

GEOGRAPHIC NAMES										
Survey No. T-5426										
Name on Survey	A <small>On Chart No. 549</small>	B <small>On previous survey No.</small>	C <small>On U. S. quadrangle Maps</small>	D <small>From local information</small>	E <small>On local Maps</small>	F <small>P. O. Guide or Map</small>	G <small>Rand McNally Atlas</small>	H <small>U. S. Light List</small>	K	
<u>Chesapeake Bay</u>	*		✓							1
<u>Hawk Cove</u>	*		✓							2
<u>Back River</u>	*		✓				✓			3
<u>Browns Creek</u>	*		✓							4
<u>Black Marsh</u>	*									5
<u>Wells Point</u>	*		✓							6
<u>Balliston Point</u>	*		✓							7
<u>Claybank Point</u>	*	T2308 Clay Bank	✓							8
<u>Cedar Point</u>	*		✓							9
<u>Rocky Point</u>	*		✓							10
<u>Drum Point</u>	*		✓							11
<u>Cuckold Point</u>	*		✓							12
<u>Hart Island</u>	*		✓				✓			13
<u>Miller Island</u>	*		✓				✓			14
										15
										16
										17
										18
										19
Names underlined in red approved										

REVIEW OF AIR PHOTO COMPILATION T 5426 (1936)
1:10,000

Comparison with Graphic Control Surveys

T 6335 (1935), 1:10,000

All detail on T 6335, the shoreline, the duck blinds, flagpoles, etc. were transferred from T 6335 to this compilation. The shoreline was transferred in the field while the other details were transferred in the office by L. A. M., checked by R. M. Berry. The mooring buoy in Browns Creek is the only detail on T 6335 in this area which is not shown on this compilation.

Comparison with Previous Topographic Surveys

Comparison with the old surveys listed below shows the compilation to be complete and adequate to supersede the sections of those surveys which it covers.

T 213 (1846), 1:20,000	
T 214 (1846)	"
T 219 (1849)	"
T 436 (1853)	"
T 450 (1854)	"

T 2308 (1898), 1:20,000

The survey for T 2308 covers an area in Chesapeake Bay between Bush River and Back River. T 2308 shows contours. There have been no prominent changes of shoreline or culture since the time of the survey for T 2308. The small marsh island at lat. $39^{\circ} 15.2'$, long. $76^{\circ} 22.2'$ is now joined to the mainland of Hart Island. Except for contours the survey for T 2308 is adequate to supersede this compilation over the common area.

Comparison with the Charts

Charts No. 549, 1225. The tiny marsh islands at Balliston Pt. and at the southeastern end of Miller Island are no longer in existence.

The narrow neck of land running in a north and south direction at Cuckold Point no longer exists. A shoal area is shown in its place.

The small pier at Claybank Point (shown on chart 549 only) is no longer in existence. Other changes to be made to these charts as a result of this compilation are discussed under Comparison with plane table survey No. T 2308.

No landmarks except Craighill Light have been recommended by this compilation or the graphic control survey.

Feb. 13, 1936.

Leland A. McKean
V. B. Jones

REVIEW OF AIR PHOTO COMPILATION NO. T-5426

Chief of Party: J.C. Partington

Compiled by: B.W. Waltrup
and
A.F. Cerrito

Project: HT-175

Instructions dated: March 14, 1934

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, 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) *Survey T-6335*
Shoreline from Δ Hawk to Δ Broring located by plane table and transferred to this compilation.
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 blue-prints or maps transmitted.
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. ✓
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)
High water line from Δ Hawk, 1934 north to the limits of the compilation was transferred from plane table survey T-6335. High water lines elsewhere on the compilation was obtained from notes and sketches made on the photographs by the field inspection party. E.A.M. ✓

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)
No recoverable objects located. ✓
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)
No bridges on this compilation. Old piles at south end of Hart Id. shown. ✓
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) ✓✓
13. The geographic datum of the compilation is *North American 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:

18. Examined and approved;

J. C. Partington
Chief of Party

19. Remarks after review in office:

*For detailed report on office verification
see pages immediately preceding*

Reviewed in office by: *Leonard A. McSams* February 13, 1936.
v B. G. Jones

Examined and approved:

C. H. Green
Chief, Section of Field Records
L. O. Lobat
Chief, Division of Charts

Fred. L. Peacock
Chief, Section of Field Work
Thide
Chief, Division of Hydrography
and Topography.