5657

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.* 5657

State Maryland

LOCALITY

Chesapeake Bay

Sassafras River- Entrance

Howell Point

Photographs taken May 1937
and July, 1937

1939

CHIEF OF PARTY

L. W. Swanson

U.S. GOVERNMENT PRINTING OFFICE: 1934

5657
5657
5657

applied to ckt 572 - April 1940. H.L.B.

Form 537a
Ed. Nov. 1929

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. 5657

REGISTER NO. T5657

State MARYLAND

General locality CHESAPEAKE BAY

Locality SASSAFRAS RIVER - ~~EMMAWORD~~ - Howell Pt.
May 1&2, 1937

Scale 1:10,000 x 0.965 Date of survey July 8, 1937, 19

Vessel Air Photographic Survey Party No.2

Chief of party L. W. Swanson

Field Inspection: E.L. Jones- [redacted] - J.C. Partington.

Surveyed by Compilation; W. E. Schmidt.

Inked by W. E. Schmidt

Heights in feet above ____ to ground to tops of trees

Contour, Approximate contour, Form line interval ____ feet

Instructions dated May 13, 1938. June 6, 1939, 19

Remarks: Scale factor 0.965

GPO

Ref. Sta. Harris 1933. Lat. 39°22' 13.907 (428.9 m) adjusted
Long. 76°06' 28.519 (682.7 m)

Descriptive Report
To Accompany
Celluloid Map Drawing Sheet No. T- 5657

State Of Maryland
Chesapeake Bay - Sassafras River - Still Pond

Date of this report June 22, 1939

GENERAL INFORMATION:

The field inspection for this area was made between the months of May and October of the year 1937, by E. L. Jones, [redacted] and J. C. Partington.

The photographs were taken by the U. S. C. & G. S. nine lens Aerial Camera.

CONTROL:

The following triangulation stations fall within the tracing limits of this sheet;

Andelot 1933	+ Howell Pt. Light 1939 BNB
* Worton Pt. Tower No. 8 - 1918	Harris - 1933
Plum Pt. Tower No. 7 - 1918	Howell Pt. Tower No. 5 - 1918
Harris 1897	17 U.S.E. - 1937
Meeks Pt. Tower No. 6 - 1918	Howell Pt. - 1938

* See form 596 in the appendix.

GROVE NECK CHANNEL SOUTH REAR RANGE LIGHT 1939
" " " " FRONT " " " BNB.

RADIAL PLOT:

Plot and shoreline detailing completed by Washington Office.

(a) Scale;

The photographs vary in scale factor. The scale of this sheet is 1: 10,000 x 0.965

The plot for T5657 was well controlled and was made without difficulty. BGG

DETAIL:

All radials in green are located from only two photographs or were considered uncertain.

Sections of this sheet that required too much adjustment, were mapped with the aid of the projector.

Due to additional field inspection at a later date the detail of the shoreline has been changed.

An attempt was made with the aid of the sterescope to show all buildings on this sheet except small sheds and out buildings. Due to the lack of clarity of some of the photographs it was impossible to outline the houses in some localities.

Tops of bluffs on map drawing are slightly exaggerated and are not shown in their true relation to the shoreline.

+ This light ~~1933~~ is in a new position; determined in 1939 BNB
Light shown in pictures, has been moved. Located in 1933

DETAIL:(continued)

Except for control, all other information shown on this sheet was taken from the field inspection notes and photographs.

The streams as shown on this sheet are for the most part drainage streams, in wooded ravines, and flow only during the rainy seasons. Their location in some places are somewhat doubtful but are assumed to follow the main axis of the ravine.

When two or more of the photographs were not in agreement as to existing physical conditions, the later photograph was taken as the criterion.

The following general notes were adhered to in carrying out the detail of this sheet;

(a) All roads, regardless of the type, have been shown by centerline only and the type and width labeled.
(b) All buildings shown except small sheds and out buildings.
(c) All wooded areas, swamps, cultivation etc. were outlined and labeled.
(d) All docks and wharves shown.
(e) Scattered trees, hedges and other detail too small to outline were fully inked in.
(f) Fencelines, ditches and trails were shown with solid lines and labeled.
(g) All curves at the intersection of roads were inked in, that did not plainly show the detail by centerline intersections.
(h) All other detail was labeled.
(i) All geographic names and any other information which ordinarily go on the overlay sheet, was inked in on the map drawing.

COMPARISON WITH PREVIOUS SURVEYS: (T- 2381)

There is only 50% of the area common to both of these surveys. Such roads, ofencesc shoreline etc. common to each are in good agreement.

JUNCTIONS:

This sheet joins the following Map Drawings;

5658 on the east.
5692 and 5693 on the south.

Junction was made with Map Drawing T- 5658 on the east side of this sheet. Junction was in poor agreement due to the lack of radial points on sheet No. T- 5658. Necessary corrections were made on T- 5658 so that the two sheets are now in agreement.

NAMES:

Geographic names on this sheet are listed on form M-234 in the appendix.

It is the understanding of this office that the hydrographic party on launch Mikawe in 1938 submitted geographic names of this area from local residents. In accordance with the standard Coast Survey practice the apostrophe s has been dropped from geographic names.

RECOVERABLE TOPOGRAPHIC STATIONS:

The following recoverable topographic stations are submitted with this report on card form 524;

Cupola, building end of dock.
Tank, elev.
N. W. Cor. concrete bulkhead.
Card descriptions are not filed as they are not needed for recovery.

LANDMARKS:

Landmarks for this area shown on this sheet have been made the subject of a special report and submitted with the 1938 hydrographic survey made by the launch Mikawe.

New landmarks (aids to navigation) have been reported separately by this party and forwarded 8/1/39. JMS

REMARKS:

Referring to the Director's letter of April 11, 1939, attention is called to the fact that during the process of inking, the sheet was kept clean by the use of ordinary household ammonia. Upon completion of this sheet it was found that the ink chipped off. Craftint black celluloid ink No. 150 L.H. was used.

The probable error is not greater than 5 meters for all radial points and well defined objects along the water front and well controlled area. The error of other detail of importance on this sheet is probably not greater than 10 meters, where our radial points were determined from 3 or more photographs.

Respectfully submitted
Walter E. Schmidt,
Photographic Aid (Field)

Forwarded Approved
L.W. Swanson, Chief of Party
8/3/39
Date
by: James N. Jones Jr H.&G.E.

DATA RECORD T-5657

Photographs

Nos.	Date	Time	Scale	Altitude	Stage of Tide*
1504	5/1/37	3:04	1:10,000 x 0.965	6,900	
1505	"	3:05	"	"	
1563	5/2/37	9:20	"	"	
1564	5/2/37	9:21	"	"	
1565	5/2/37	9:22	"	"	
1584	5/2/37	9:38	"	"	
1585	5/2/37	9:39	"	"	
1682	7/8/37	11:07	"	"	
1683	7/8/37	11:08	"	"	
1687	7/8/37	11:15	"	"	
1369	5/1/37	9:45	"	"	
1394	5/1/37	10:17	"	"	

* Tide from predicted tables, Betterton, Sassafras River, Mean Range = 1.9 Ft.

Camera: U.S. Coast & Geodetic Survey nine lens (focal length 8¼ inches)
Negative on file in Washington Office.

Supplemental Surveys

Graphic control surveys:----------None----------
Hydrographic surveys: * July aug 1939
Field inspection: E.L. Jones and J.C. Partington- May to Oct, 1937
* details on T 5657 are of the date of the photographs except for correction and addition of shoreline structures upon the hydrographic survey as listed in margin at both. BGJ.

General Information

Chief of Party------ L.W. Swanson----------
Projection by:------ Washington Office----------Ruling machine--Date unknown---
Projection checked by:--Washington Office----------Date unknown---
Radial points pricked by:-----Unknown----------Date unknown---
Additional points pricked by:---W.E. Schmidt----------June, 1939-----
Control plotted by:Washington Office ----------Date unknown---
Control checked by :-Washington Office----------Date unknown---
Radial plot by:--Washington Office----------Date unknown---
Shoreline inked by:-- Washington Office----------Date unknown---
Shoreline revised by:--W.E. Schmidt----------June, 1939-----
Detail inked by:---W.E. Schmidt----------May 22, 1939 to June 15, 1939----
Preliminary review by:---J.N. Jones----------July 13, 1939---
Smooth draft by:

Statistics

Area(land) ----------15.7 square statute miles
Shoreline(more than 200 m. from opposite shore)--18.8 statute miles
Shoreline(creeks) ----------00.5 statute miles
Roads, streets, trails & railroads----------41.0 statute miles

Reference Station

Reference station: Harris(1933) Datum: North American 1927
Latitude: 39° 22' 13.907" (428.9 m.) adjusted
Longitude: 76° 06' 28.519" (682.7 m.) adjusted
Maryland system of plane coordinates: x= 1,052,206.23 y= 561,060.37

	Remarks	Decisions
1	Apostrophe s dropped from the word Kinnaird as it	393761
2	appears on U.S. quadrangle Map. This is in accordance with the Coast and Geodetic Survey	" U.S.G.B
3	practice.	" "
4		"
5		" U.S.G.B
6		" "
7		" U.S.G.B
8		393760
9		"
10		393761
11		393760
12		
13	x-1 Mr. Buddnick, Aberdeen, Md. (Proving ground)	Aberdeen, Md.
14		393761
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

M 234

GEOGRAPHIC NAMES

Survey No. T-5657

Name on Survey	A: On Chart No. 1226	B: On previous survey No. T-2381	C: On U. S. quadrangle Maps	D: From local information	E: On local Maps	F: P. O. Guide or Map	G: Rand McNally Atlas	H: U. S. Light List	K	
Kinnaird Pt. ✓	x		x							1
Stillpond Creek ✓	x		x							2
Stillpond Neck ✓			x							3
Still Pond ✓	x		x							4
Plum Pt. ✓	x		x							5
Rocky Pt. ✓	x		x							6
Churn Creek ✓	x		x							7
Betterton ✓	x	x	x							8
Coleman ✓	x		x							9
Howell Pt. ✓	x	x	x							10
Sassafras River ✓	x	x	x							11
Chesapeake Bay	x		x							12
Meeks Pt. ✓				x-1/						13
Worton Pt. ✓										14
										15
		Names underlined in red approved								16
		by L. Heck		on 8/26/39						17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

M 234 VK

Computed by J.C.P. from
R.D. Horne's 1933 observation

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
Form 596

POSITION COMPUTATION, TRAVERSE

		°	′	″
α	to			
$\angle$	&	+		
α	2 ANDELOT to 1 WORTON PT. TOWER No.8	304	57	15.27
$\Delta\alpha$				
		180	00	00.0
α'	1 to 2			

	°	′	″			°	′	″
ϕ	39	19	07.770	2 ANDELOT	λ	76	11	08.845
$\Delta\phi$		-	0.618	s= 109.20 ft. = 33.28 m.	$\Delta\lambda$		-	01.139
ϕ'	39	19	07.152	1 Worton Pt. Tower No. 8	λ'	76	11	07.706

	Logarithms	Values in seconds	
s	1.522183		
Cos α	9.758096	(1629.8) m. 220.6 m.	
B	8.510903		
h	9.791182	1st term	″
s^2	3.0444		
$\sin^2\alpha$	9.8272		
C	1.3179		
	4.1895	2d term	+
h^2	9.582		
D	2.384		
	1.966	3d term	+
		$-\Delta\phi$	

	°	′	″
$\frac{1}{2}(\phi+\phi')$			

	Logarithms	Values in seconds
s	1.522 183	
Sin α	9.913 607	(1252.8 m.) 184.6 m.
A'*	8.509 136	
Sec ϕ'	0.111 464	
$\Delta\lambda$	0.056 390	″ 1.1387
Sin $\frac{1}{2}(\phi+\phi')$		
$-\Delta\alpha$		

Note;
Worton Pt. Tower No. 8-1918
Corrected Position-
39° 19′ 220.8 m.
76° 11′ 184.6 m.
See Page 26(S.P. No. 114 Tri. Md.)

* Use ϕ' as the argument for taking out A'.

Do not write in this margin.

11—11227 U.S. GOVERNMENT PRINTING OFFICE: 1934

Chkd By P.A.J.

REVIEW OF AIR PHOTO COMPILATION NO. 5657

Chief of Party: L.W. SWANSON Compiled by: W.E.S.

Project: H.T. 215 MAY 13, 1938 & JUNE 6, 1939 ← Instructions dated:

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. NONE 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. NONE 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. NONE 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)

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." W-87

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) See descriptive report

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)
NONE OVER NAVIGABLE STREAMS.

12. ✓ Geographic names are shown on the ~~overlay tracing~~ sheet. 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 N.A. 1927 adjusted 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:

THIS SHEET AS SUBMITTED IS A ROUGH DRAFT TO BE REDRAWN

18. Examined and approved;

James D. Jones
Jr. H&G Eng'r.
for L. W. Swanson.

Chief of Party

19. Remarks after review in office:

Reviewed in office by:

Examained and approved:

Chief, Section of Field Records

Chief, Section of Field Work

Chief, Division of Charts

Chief, Division of Hydrography and Topography.

M-350

T-565 7

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 H. D. REED, Jr.

Positions checked by " on RULING MACHINE

Grid inked on machine by "

Intersections inked by "

Points used for plotting grid:

x = 1,035,000 FT y = 545,000 FT	x 1,050,000 y 550,000
x 1,065,000 y 545,000	x y
x 1,035,000 y 560,000	x y
x 1,065,000 y 560,000	x y

Triangulation stations used for checking grid:

1. Harris, 1933 (Ref. Sta.) X = 1,052,206.23 - Y = 521,060.37
2. Andelot 1933 X = 1,030,360.06 - Y = 542,022.87
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-5657

1:10,000

There will be no contemporary graphic control surveys in this area. The hydrographic signals and shoreline were transferred from the air photographic survey direct to the hydrographic sheets.

Contemporary Hydrographic Surveys

H-6371, 1:10,000, July - August 1938

The projection shore line and part of the signals on H-6371 were printed from a reproduction of the partially completed drawing of T-5657.

Several ruins and small piers along shore located by the hydrographic survey but not visible on the photographs have been added to T-5657 from H-6371, 1938.

A pier at Betterton has been removed from T-5657 in accordance with a note on H-6371 that it has been destroyed. One other pier at Betterton has been revised on T-5657 to agree with the large scale plan on H-6371.

T-5657 and H-6371 are in agreement and no further comparison is necessary.

Former Topographic Surveys

T- 212	(1845)	1:20,000
T-2296	(1897)	1:20,000
T-2368	(1898)	1:20,000
T-2369	(1898)	1:20,000
T-2381	(1900)	1:10,000

The shoreline of the above surveys agrees closely with T-5657. The interior details are considerably changed. T-5657 is complete and adequate to supersede those portions of the above surveys which it covers except for contours shown on T-212, T-2296 and T-2381.

Chart 1226

Fixed aids to navigation in this area have been located by triangulation and are shown on T-5657.

Descriptions on Form 524

There are no described topographic stations on T-5657.

General

T-5657 was compiled as a rough drawing and was redrawn in the Philadelphia office.

Reviewed by T. C. Lande

Inspected by B. G. Jones

Examined and approved:

Thos B Reed
Chief, Surveys Section

F. S. Borden
Chief, Division of Charts

K. T. Adams
Chief, Section of Topography

G T Lande
Chief, Division of Coastal Surveys