5709

Diagd. on Diag. Ch. No. 77-4

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey: Planimetric Map

~~Field~~ No.: T-5709 Office No.:

LOCALITY

State: Maryland

General locality: Chesapeake Bay

Locality: St. Michaels and Vicinity

Photographs taken May 1, 1937.
Supplemented by other surveys to
April 1940.

194 0

CHIEF OF PARTY

L. W. Swanson

LIBRARY & ARCHIVES

DATE

B-1870-1 (1)

5709

5709

Applied to drawing of chart 1225 2-11-41 J.T.W.

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. T-5709

REGISTER NO.

State Maryland

General locality Chesapeake Bay

Locality St. Michaels and Vicinity

Scale 1:10,000 Date of ~~Survey~~ Photographs May 1, 1937

Vessel Air Photographic Survey Party No. 2

Chief of party L. W. Swanson

Surveyed by Field inspection by J. Steinberg and 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

Remarks:

DATA RECORD T-5709

PHOTOGRAPHS

Numbers	Date	Time	Scale	Altitude	Stage of tide*
1350-1353	5/1/37	9:14-9:45	1 : 10,000	6,975 ft.	1.3 ft. above M.L.W.
1410-1412	5/1/37	10:27-10:49	"		1.1 ft. above M.L.W.
1460-1462	5/1/37	2:11- 2:15	"		0.2 ft. above M.L.W.

1666-1667

* Tide from prediction tables for St. Michaels, Md. mean range 1.3 ft., spring range 1.5ft.

Camera: U. S. Coast and Geodetic Survey nine lens camera.
Focal length 8¼ inches.
Negatives on file in Washington office.

SUPPLEMENTAL SURVEYS

Graphic control surveys ---------- None
Hydrographic surveys ---------- None ?
Field inspection --------Joseph Steinberg and J. Jones ---- Spring, 1940

The details on T-5709 are of the date of the photographs.

GENERAL INFORMATION

Chief of Party --- L. W. Swanson
Projection by: --- Washington Office --- Ruling machine ------ 4/24/40
Projection checked by: --- Washington Office (J. Dunich) ----- 4/24/40
Control plotted by: --- J. L. Rihn ---------- 4/30/40
Control checked by: --- J. N. Jones ----------5/1 /40
Radial Plot made by: --- L. W. Swenson and J. L. Rihn ----------5/6/40
Radial points pricked by: --- J. L. Rihn
Shoreline inked by: --- J. L. Rihn
Detail (rough draft) inked by: ---- J. L. Rihn
Scale: ---- 1:10,000 (no scale factor)

STATISTICS

Area (land)	22.0 sq. statute miles
Shoreline (more than 200 meters from opposite shore)	45.0 statute miles
Shoreline (less than 200 meters from opposite shore)	17.0 statute miles
Roads, streams, and trails	141.0 statute miles
Time required for detailing	25.5 working days

REFERENCE STATION

Bigelow, 1934 Datum: North America 1927

Latitude: 38° 47' 23.208" (715.6 meters) adjusted
Longitude 76° 11' 11.613" (280.3 meters)

Maryland system of plane coordinates: X = 1,031,859.42 ft Y = 349,348.08 feet
(single zone)

plotting checked from both polyconic + grid; Bauer

for date of survey see reverse of back.

DESCRIPTIVE REPORT
to accompany
AIR PHOTOGRAPHIC SURVEY SHEET NO. T-5709
STATE OF MARYLAND
CHESAPEAKE BAY-ST. MICHAELS

Date of this report ---------- December 30, 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 twenty-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

Lipscomb, 1934
Bigelow, 1934
St. Michaels Water Tank, 1934

Maryland Shell Fish Survey with C. and G. Survey

Albert, 1909
Colonel, 1909
Shaw, 1909
Won, 1909
Benn, 1909
Wood, 1909
Two, 1909
Mais, 1909
Swing, 1909
Second, 1909
Rieman, 1909
Leeds, 1909
Margo, 1909
Tug, 1909
Gibbs, 1909
Hunting, 1909
Beg, 1909
Long, 1909
Dorrance, 1909
Tang, 1909
Kirk, 1909
Fig, 1909

Added in office
Beverly, 1909
Ansley, 1909 R.M.
} Recovered in 1940 and pricked in field.
St. Michaels P.E.Ch. spire, 1909
Bruffs, 1909

Off sheet, but used in radial plot
Henderson, 1909

Reference marks for stations Colonel, 1909, Won, 1909, Swing, 1909, and Rieman, 1909 were plotted instead of the stations themselves because they were much easier to prick. They are shown by ~~small~~ 2.5 mm. ink circles.

Field inspection stations were plotted with Gibbs, 1909 and Fig, 1909. They are shown by small blue squares.

The triangular symbol is not shown for stations Colonel, 1909, Won, 1909, Swing, 1909, and Rieman, 1909 because these stations were not recovered. Reference marks were recovered for these stations, and are shown with 2.5 mm. circles as topographic stations.

RADIAL PLOT:

The radial plot was made only for this sheet. The dummy sheet that was used had coordinate grid projections. The celluloid template method was used in running this plot. For method, see report on T-5698. The hydro-signals were so numerous along the shore line that no additional radial points were pricked there. In shore, two radial points per square mile were selected at well defined road intersections.

Although there were an adequate number of triangulation control stations, the laying of the plot was considerably difficult. Photographs Nos. 1409, 1354, and 1351 were found to have their outer chambers twisted in various degrees with the center chamber. Therefore, the celluloid templates which were made from these photographs were discarded. After all of the other templates had been layed, these photographs wereplace under the dummy sheet. An average center was found; then holding this center, each chamber was oriented separately and the radial lines drawn chamber by chamber. There were no triangulation stations for control in three chambers of 1351, none of 1409, and one chamber of 1354. These four chambers were oriented by using flight lines and strong intersections already obtained from other photographs.

During the inking of the shore line, it was noticed that the three photographs mentioned above and photographs Nos. 1411, and 1412 all had appreciable tilt.

SCALE:

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

DETAILING:

Except for control and geographic names, all information on this sheet was taken from the field inspection notes and from the photographs. Some recently constructed buildings were discovered on later 1:20,000 scale photographs Nos. 4716 and 4717. These buildings were added to this sheet.

Since the scale of this celluloid sheet and the scale of the photographs were considerably different, all detailing was first done under the projection machine.

COMPARISON WITH PREVIOUS SURVEYS:

1. Chart No. 77 (1936) and Chart No. 1225 (1935) --- As nearly as could be ascertained, the shoreline agrees with these charts. Because of the large difference in scale, no detailde comparison could be made.

2. Topo Survey No. T-2513 --- The inland topography in and around St. Michaels agrees fairly well. No agreement or disagreement that could be explained by erosion could be made with the shore line and other topography below St. Michaels.

3. Topo Survey T-2524 (1901) --- The inland topography agrees remarkably well. Erosion however has changed the shore line over the entire area of this sheet . Because of various factors some areas have changed more than others.

a. Herring Island has disappeared completely. Nothing but a shoal area remains.

b. The eastern shore of Eastern Bay from Bennett Pt. to the northern limit of the sheet shows the greatest change from erosion. The fast shore line has receded from 0 to 85 meters. The marshy area has only been changed appreciably at the very end of Bennett Pt.

c. The eastern shore of Miles river from Long Pt. to Bruffs Island shows a recession of 0 to 40 meters. The ponds just inside the shore line have grown larger, changing not only in size but also in shape and location.

d. The western shore of Miles River from the southern limit of the sheet to Eastern Bay has receded from 0 to 30 meters.

e. The shore line along Wye East River, the rest of Miles River, and the creeks does not show as much change from erosion. The erosion is usually at marshy areas, the mouths of streams, or points of land.

JUNCTIONS:

Good junction were made with map drawing T-5706 on the north and map drawing T-5708 on the west. Map drawings T-5711 also on the west, T-5712 on the south, and T-5707 and T-5710 on the east have not been detailed.

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-5709.

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

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.

Respectfully submitted,

Jack L Rihn

Jack L. Rihn
Senior Photogrammetric Aide (Field)

1-9-41

L W Swanson

GEOGRAPHIC NAMES

Survey No. T-5709

Name on Survey		On Chart No. 77 A,	On Chart No. 1225 B,	On previous survey No. 2524 C,	On U. S. quadrangle Maps D	From local information E	Highway Map On local Maps State Planning Board County Map P. O. Guide or Map Lake, Griffing & Stevenson F	Jr. Rand McNally Atlas G	U. S. Light List H	K	
St. Michaels	x	x	x	x	x	x	x	x	x		1
Eastern Bay	x	x		x	x	x	x		x		2
Wye River	x	x	x	x		x	x		x		3
Wye Island	x	x	x	x	x		x				4
Lloyd Creek	x	x	*	x	x						5
Woodland Creek	x	x	x	x	x						6
Tunis Mills	x	x	x	x	x	#					7
Leeds Creek	x	x	x	x	x				x		8
Hunting Creek	x	x	x	x	x						9
Miles River	x	x	x	x		x					10
Wye East River	x	x	@	x	x	x	@				11
Bruffs Island		x	x	x	x		x				12
Shaw Bay		x	¢	x	x		¢				13
Bennett Point		x	$	x	x		$				14
Fairview Point		x	x	x	x				x		15
Long Point		x	x	x					x		16
Long Haul Creek		x	x	x	x						17
Deep Water Point		x	x	x	x				%		18
Spencer Creek			&	x	x						19
Copperville				x	x	x					20
Unionville				x	x	x					21
Bordley Point				x	x						22
Quarter Cove				x	x						23
Wyetown Point					x				x		24
Gross Creek				x	x						25
Parrott Point					x				*		26
~~ATLAS SURVEY~~											27

M 234

	Remarks	Decisions	
1		387762	
2		388763	
3		388762 USGB	
4		388761	
5	* Lloyds Creek	388761	
6		388761	
7	# Tuhls Mills (probably a mistake in copying)	388761	
8		387761 U.S.G.B	
9		387761	
10		388762 U.S.G.B.	
11	@ Back Wye River	388761 U.S.G.B	
12		388761	
13	¢ Shaws Bay	388761	
14	$ Bennetts Point	388762 U.S.G.B	
15		387761	
16		387761	
17		387762	
18	% The U. S. Light List gives both Deep Water Point and Deepwater Point	388762	
19	& Spencers Creek	388762 U.S.G.B	
20		388761	
21		388761	
22		388761	
23		388761	
24	An old established name.	388761 ?	where?
25		388761	
26	* The Light List refers to a Parrotts Island ~~at the entrance to St. Michaels' harbor.~~	387762	
27	An old established name.	388762 USGB	see above

M 234

GEOGRAPHIC NAMES

Survey No. T-5709

Name on Survey	On Chart No. A,	On previous survey No. B,	On U. S. quadrangle Maps C,	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Herring Island										1
										2
										3
Baltimore & Eastern Railroad (Pennsylvania R. R. system)										4
										5
Street Names of St. Michaels										6
										7
Little Neck Creek										8
										9
San Domingo Cr.										10
Miles River Neck										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

M 234

	Remarks	Decisions
1	It is recommended that this name be deleted from the charts. Erosion has caused the	Adv
2	entire island to disappear leaving only a shoal area	deleted GNS 77.
3		
4	The ownership of this railroad has changed. The name has been verified with the local	
5	office of the Pennsylvania R. R.	
6	Local information was the only source for these names. There is no street map of St.	
7	Michaels in existence at the present time.	
8	The first creek S.E. of Spencer Creek is known locally as Little Neck Creek. This	T223 has Little Neck Pt. A here.
9	name is not on the overlay sheet.	
10	Upper part is just S. of St. Michaels	38776 L U.S.G.B
11		38876
12		
13	Names underlined in red approved	
14	by L. Heck on 9/17/41	
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

M 234

REVIEW OF AIR PHOTO COMPILATION NO. T. 5709

Chief of Party: L. W. Swanson

Compiled by: J. L. Rihn

Project: H. T. 215

Instructions dated: May 13, 1938
Directors letter 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, c, d, e, ~~f~~ and ~~g~~; ~~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. ~~28~~; and 66 ~~g~~, ~~m~~)

~~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)

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)

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; ~~45~~; and 66 c, ~~k~~, l)

7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16d, 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." M-67

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)

Recoverable objects are described on overlay sheet. Form 524 will not be submitted.

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)

Landmarks and Hydrographic Signals are described on over lay sheet. Form 567 is submitted.

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)

Notes on overlay sheet.

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 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, 48)

16. No additional surveying is recommended at this time.

17. Remarks:

18. Examined and approved;

1-9-41

L W Swanson

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.

Form 567
Rev. March 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

Duplicate of chart letter 22 (1941)

LANDMARKS FOR CHARTS

TO BE CHARTED [redacted] } STRIKE OUT ONE

Baltimore, Maryland Dec. 30, 1940 [redacted]

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

The positions given have been checked after listing.

L. W. Swanson
Chief of Party.

GENERAL LOCALITY **Chesapeake Bay Eastern Shore, Maryland**

NAME AND DESCRIPTION	POSITION						METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	LATITUDE			LONGITUDE		DATUM						
	° ′	D. M. METERS		° ′	D. P. METERS							
STACK (Red brick stack)	38 47	509		76 18	258	1927 N.A.	Air Photo. Plot	May 1 1937				77 & 1225
TANK (Elev. white water tank)	38 47	1036		76 11	59	"	"	"				"
TANK (Elev. black water tank)	38 52	487		76 09	1238	"	"	"				"
CUPOLA (Cupola on house)	38 48	597		76 11	1281	"	"	"				"
CHIMNEY (Chy. northernmost side of house)	38 48	619		76 11	1279	"	"	"				"
The photographs used in the plot were all taken on May 1, 1937.												
The descriptions in parentheses are the names of hydrographic signals on Map drawing No. T-5709.												

This form shall be prepared in accordance with 19[redacted] Field Memorandum, "LANDMARKS FOR CHART[redacted] 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.

U. S. GOVERNMENT PRINTING OFFICE 69675

DIVISION OF PHOTOGRAMMETRY

REVIEW OF PLANIMETRIC MAP T-5709

There are no contemporary graphic control surveys in this area.

Hydrographic Surveys:

H-6605 1:10,000 1941

The comparison was not made because the smooth sheet of H-6605 has not been completed. The comparison should be made by the hydrographic verifying unit.

Previous Topographic Surveys:

T-2524 1:20,000 1900-01

The comparison between T-2524 and T-5709 on page 4 of the descriptive report for T-5709 is adequate, except that no mention was made of the fact that the point of land extending southward almost across the entrance to Woodland Creek has been cut through and is now an island.

There have been numerous changes and additions in roads, fences, and ditches in the interior detail, although some remain as before, and the woodland areas have changed hardly any.

T-2513	1:20,000	1900
T-224	1:20,000	1847
T-223	1:20,000	1847

No changes other than those pointed out in the comparison with T-2524 are worthy of note.

T-5709 supersedes for charting purposes the sections of the above listed surveys which it covers.

Comparison with Nautical Charts: Chart 1225 (7-22-41)

T-5709 was applied to Chart 1225 February 11, 1941, prior to this review. No important differences exist between the chart and T-5709.

Radial Plot:

Four triangulation stations for which recovery cards were turned in in 1940 were plotted on T-5709 in the office, although apparently not used in the radial plot of T-5709. They are Bruffs (M.S.F.S.) 1909, Ansley R.M. (M.S.F.S.) 1909, Beverly (M.S.F.S.) 1909, St. Michaels P.E. Church Spire, 1909. Two of these stations (Ansley R.M. and Beverly) were pricked in the field on some of the photographs and were used in the radial plots of adjoining sheets T-5711 and T-5712. These two stations and St. Michaels P.E. Ch. Sp. checked with the radial plot within 0.2 mm. No attempt was made to prick Bruffs 1909 in the office.

Station Won R.M. (M.S.F.S.) 1909 as plotted on the sheet does not check with the position pricked on the photographs. The plotting of the reference mark has been checked in the office and the error is apparently in the identification on the photograph.

A check of the radial plot made by orienting the photographs under the acetate sheet disclosed no errors in the main plot. The secondary radial points and other details of importance are believed to be within 1.0 mm of true position.

Field Inspection and Detailing:

Field inspection was made in the spring of 1940 and is complete except for the pricking of △ Bruffs (M.S.F.S.)

The detailing was of the date of the photographs (May 1, 1937), except for a few new buildings taken from 1:20,000 scale photographs taken March 12, 1940, and a road at latitude 38°48.3', longitude 76°10.5', noted as changed on the field inspection.

The rough draft detailing was good and complete, except for a few fences and ditches added in the office, and Parrotts Island Light and Fairview Point Light which were radial plotted and added to T-5709 in this office.

Fixed Aids to Navigation:

The two lights above mentioned were apparently overlooked by the field party as nothing is said in the descriptive report in regard to them.

Some fixed day beacons on Hunting Creek (shown on Chart 1225) were noted on photograph 1351 by field inspection, but are not visible on the photographs, cannot be radial plotted and are not shown on T-5709.

Reviewed by D. H. Benson, Dec. 23, 1941

Inspected by B. G. Jones, Dec. 23, 1941

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

NOTE:

T-5709 was compiled in 1940 and reviewed in 1941. However, the Washington Office processing was delayed until 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-5709 were used as a base in preparing quadrangles T-8266 and T-8267, which were completed in 1943. These quadrangles are more recent and more complete as regards map details than T-5709, but are at a smaller scale.

APPROVED BY:

B. G. Jones 7/46
B. G. Jones, Technical Asst.
Div. of Photogrammetry

Robert Wilson
Chief, Nautical Chart Branch
Division of Charts

K. T. Adams
Chief, Div. of Photogrammetry

Raymond P. Eyman
Chief, Div. of Coastal Surveys