

6981

Diag. Ch. No. 77-4

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey TOPOGRAPHIC

Field No. G Office No. T-6981

LOCALITY

State MARYLAND

General locality Chesapeake Bay-Eastern Shore

Locality Taylors Island

194 5

CHIEF OF PARTY

L.P. Raynor, Comdg. Ship LYDONIA

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DATE APR 27 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 6

REGISTER · NO.

State MARYLAND

General locality Chesapeake Bay - Eastern Shore

Locality Taylor's Island

Scale 1/10,000 Date of survey March-April, 19 45

Vessel Ship LYDONIA

Chief of party L. P. Raynor

Surveyed by C. R. Reed

Inked by C. B. Reed

Heights in feet above _____ to ground to tops of trees

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

Instructions dated September 12, 1944

Remarks: _____

DESCRIPTIVE REPORT TO ACCOMPANY
Topographic Sheet T- 6891
Field Sheet Letter G, 1944-45
Project CS 250-Chesapeake Bay, MD.
L.P.Raynor, Chief of Party, Comdg. Ship LYDONIA

INSTRUCTIONS: Original project instructions were dated April 17, 1940. Supplemental instructions for the present season are dated September 12, 1944.

AREA: The sheet covers the location of signals and high water line on the east shore of Chesapeake Bay on Taylors Island.

GENERAL DESCRIPTION OF COAST: The shore is a low bank from 1 to 5 feet high and considerable erosion is taking place. Where the adjacent ground is wooded the shore is strewn with trees which have fallen offshore. This condition prevails for some 300 meters north of signal TOP and from a point 475 meters south of signal TOP to signal PAN.

In general the bank has a narrow sandy beach bordering it at low water. For about 200 meters on either side of signal RED and from Latitude $38^{\circ} 25.65'$ to Latitude $38^{\circ} 25.8'$ the bank is hard red clay and almost vertical with the low water line directly below the high water line.

CONTROL: Marked topographic stations WALT and JIM from the 1942 air photographic compilation were used for the principal control. Since they were not intervisible the azimuths from them to COVE POINT LIGHTHOUSE 1848 were computed and orientation lines were drawn on the sheet.

Positions of signals WOO, TOP, PIN, BOW, RAY, GUM, and SUN were furnished by Washington Office from Sheet T 8110. They were plotted on the sheet but only TOP was used.

TRAVERSES: A traverse was run from station WALT, orienting on COVE POINT LIGHTHOUSE, to station JIM. The total closure was 34 meters in 4.1 statute miles. The closure in length after correction of azimuth was 20 meters. The closure at signal TOP was 8 meters in 1.7 statute miles. This error in closure was not considered excessive in view of the probable accuracy of the control and the traverse was adjusted proportionally.

Beacon B and Beacon C were located by cuts from WALT and from JIM using the azimuth lines to COVE POINT LIGHTHOUSE for orientation.

CHANGES IN SHORELINE: A comparison with topographic sheet T5718 shows:

(1937-41) 1. A recession of shoreline at Lat. $38^{\circ} 28.16'$ of 20 meters.

2. An accretion of 30 meters at Lat. $38^{\circ} 28.4'$. The shore here is sandy and gently sloping so that a small deposit of sand would account for considerable movement of the high water line.

3. The description of station card for station WALT lists the distance to high water as 15.2 meters. The distance is now 8 meters or a recession of 7 meters since 1942.

CHANGES IN SHORELINE (continued): A comparison with topographic sheet T 8110 shows that the shoreline has receded in several places since 1942. The point at signal RED (approximate Lat. 38° 27.6') has washed away 30 meters and the house which stood at what is now the water's edge has been moved east about 80 meters. Recession at other points is tabulated below.

Amount of Recession	Location
15 meters	- Lat. 38° 28'
35 meters	- Lat. 38° 27'
17 meters	- Lat. 38° 26'
10 meters	- Point west of signal RAY
25 meters	- Point at Lat. 38° 25.38'

Very little change has taken place on the wooded point at signal PAN.

The shoreline on Chart 1225 is apparently taken from the above topographic sheet and no comparison was made.

MAGNETICS: No magnetic meridian has been shown. *None was required by Instructions*

STATISTICS: The sheet covers 4.4 statute miles of high water line.

Respectfully submitted:

Clarence R. Reed

Clarence R. Reed,
Lt. Comdr., USC&GS

Approved and forwarded:

L. P. Raynor

L. P. Raynor, Commander, USC&GS,
Commanding Ship LYDONIA

GEOGRAPHIC NAMES
Survey No. **T6981**

Name on Survey	A On Chart No.	B On previous survey No.	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	
<u>Maryland</u>									US&B	1
<u>Chesapeake Bay</u>									"	2
<u>Taylor's Island</u>									"	3
										4
										5
										6
										7
										8
<div>Names underlined in red approved by L. Heck on 4/24/47</div>										9
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NAUTICAL CHARTS BRANCH

SURVEY NO. T 6981

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.

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF TOPOGRAPHIC SURVEY

REGISTRY NO. T-6981

FIELD No. G

Maryland, Chesapeake Bay, Taylors Island
Surveyed March - April 1945 Scale 1:10,000
Instructions dated April 17, 1940 - Sept. 12, 1944

Plane Table Survey

Aluminum Mounted

Chief of Party - L. P. Rayner
Surveyed by C. R. Reed
Inked by - C. R. Reed
Reviewed by - R. H. Carstens, April 23, 1947
Inspected by - H. W. Murray

1. Adjoining Surveys

The junction with T-6982 (1945) on the south is excellent.

The junction on the north with T-8110 (1942) is discussed below in paragraph 2B.

2. Comparison with Prior Surveys

A.	T-250 (1847)	1:20,000
	T-2560 (1901)	1:20,000
	<u>T-5718 (1937-41)</u>	<u>1:10,000</u>

These prior surveys have been considered in the review of air photographic survey T-8110 (1942). A comparison with the present survey is, therefore, considered unnecessary in this review.

B. T-8110 (1942) 1:20,000

The present survey falls entirely within the limits of T-8110. At the northern limit of the present survey the high-water line is about 35 meters inshore from the high-water line on T-8110; in several other localities the difference in the position of the high-water line

is as much as 30 meters. Erosion is probably the principal cause of the change in the shoreline.

The present high-water line supersedes the high-water line on this prior survey within the common area.

3. Comparison with Chart 1225 (Latest print date 11/25/46)

A. Topography

The present survey has been applied to the chart before review. No revisions are necessary.

B. Aids to Navigation

Contemporary hydrographic information discloses that the two offshore beacons are temporary markers.

4. Condition of Survey

The survey was neatly inked.

The Descriptive Report covers all matters of importance.

5. Compliance with the Project Instructions


The present survey adequately complies with the Instructions.


6. Additional Field Work Recommended

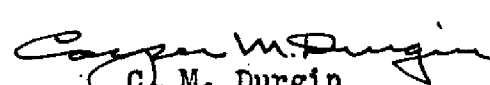
This excellent survey adequately serves the purpose intended and no additional work is required.

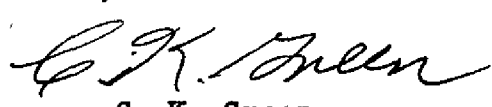
Reference is made to par. 2 of the Review and page 2 of the Descriptive Report where changes in the shoreline subsequent to the 1942 survey are noted. Continued recession of the shoreline in this area is to be expected.

Examined and Approved:


I. E. Rittenburg
Chief, Nautical Chart Branch


K. G. Crosby
Chief, Section of Hydrography


C. M. Durgin
Chief, Division of Charts


C. K. Green
Chief, Division of Coastal Surveys