

6360

U. S. COAST & GEODETIC SURVEY
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APR 10 1939

Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. H-6360
Hydrographic }

State Maryland

LOCALITY

Chesapeake Bay

Elk River

1938

CHIEF OF PARTY

F. L. Callen

U. S. GOVERNMENT PRINTING OFFICE

6360

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. ~~H-6360~~ 1006

REGISTER NO. H-6360

State Maryland

General locality Chesapeake Bay

Locality Elk River

Scale 1:10,000 Date of survey September, 19 38

Vessel Launch MIKAWA

Chief of Party F. L. Gallen

Surveyed by J. C. Partington

Protracted by George E. Varnadoe

Soundings penciled by George E. Varnadoe

Soundings in fathoms feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by }
Verified by } J.A.M^c Cormick

Instructions dated March 31, 1938

Remarks:

DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet H6360 (Field No. 1006).

INSTRUCTIONS - March 31, 1938.

SURVEY METHODS - The hydrography on this sheet was done by visual fix and depths were measured with hand leadline using an 8 pound lead. The boat was a 20 foot skiff powered by two 9 H.P. outboard motors. In general lines were run by ranges on navigational buoys or objects ashore. In narrow creeks the lines were run by estimated distances off shore objects. The hydrographic signals and most of the buoys were located by Lieut. (j.g.) Edmund L. Jones. Hydrographic work was done by Lieut. (j.g.) J. C. Partington. The projection for this sheet was made with the ruling machine in the Washington Office. Since no shoreline or signals were printed on the sheet the shoreline and air photographic signals were transferred from paper prints of the air photographic map drawings. The triangulation was plotted on this sheet from the geographic positions. For the above reasons, the signals shown on this sheet do not conform to the instructions; that is, the triangulation stations are shown as red triangles and the air photographic signals are shown as red circles.

The hydrographic signals (blue circles) were located by sextant cuts from triangulation or air photographic stations, by sextant fixes taken at the hydrographic signals, by sextant cuts and taped distances from nearby air photographic stations, or by a combination of these methods.

The position of topographic station Tim was taken from the U. S. Engineers coordinate position of this station. This station is listed under the name "Herring Island" by the U. S. Engineers. Its position is Lat. $39^{\circ} 31' 01.9307''$ 1790.86 meters - Long. $75^{\circ} 52' 31.4251''$ 682.61 meters.

The position of topographic station Red^{Light} was obtained from the graphic control sheet for hydrographic sheet H6359. T-6556

The position of stations Sow and Pig were spotted on the sheet from the shoreline as it appeared in the field and are shown as green circles.

The positions of hydrographic signals Boy and Man were plotted on sheet H6361 and transferred to this sheet. These two signals are the front and rear range lights marking the channel. Hydrographic signal Ank is a temporary stake in the water.

Air photographic signals Cow, Did and Fat and hydrographic signal Got are the offshore ends of small docks.

The following triangulation stations did not have signals built over them and were not used for hydrography: Elkton, Richardson, Caufiel.

DISCREPANCIES

It will be noted that a 3 ft. sounding falls between considerably deeper soundings at Lat. 39° 33.02', Long. 75° 52.01'. This is probably due to a gravel dredge working in this area leaving the bottom very irregular. Strip out.
Revised in
office.
J.A.M.

COMPARISON WITH PREVIOUS SURVEY

Except in the dredged areas, where no comparison can be made, the upper Elk River is shoaler than when the last survey was made. This will be especially noted in the channel, which has a controlling depth of 6 $\frac{1}{2}$ feet at Lat. 39° 32.95', Long. 75° 51.8'. The flats on either side of the channel are 1 to 2 feet shoaler. The least depth found in the dredged channel to Back Creek is 26 feet at Lat. 39° 30.4' Long. 75° 54.7'. ✓

CHANGES IN SHORELINE - A considerable change has taken place in the shoreline between Welch Pt. and Little Welch Pt. since the date of the photographs. The change is due to dumping dredged material taken from the Delaware Chesapeake Canal and filling in this spoil area. The present H.W. line was located by sextant fixes on Sept. 7, 1938. Topographic map revised. JHM.

The shoreline in the vicinity of Lat. $39^{\circ} 35.1'$, Long. $75^{\circ} 51.8'$ has changed since the date of the photographs. At the time of hydrography, on September 28, 1938 a gravel dredge was working in this area and the shoreline is continually being cut back. The approximate high water line was sketched on the boat sheet. On account of the continual change taking place here no attempt was made to locate the high water line by more accurate methods. Topographic map revised.

The edge of marsh grass in the vicinity of Lat. $39^{\circ} 34.2'$, Long. $75^{\circ} 50.8'$ was located by sextant fixes. Added to topographic map.

CHANGEABLE WATER AREAS

A large area in the vicinity of Lat. $39^{\circ} 33.2'$, Long. $75^{\circ} 52.1'$ is used for obtaining gravel from the river bed. For this reason the area is subject to considerable change and no attempt was made to develop this area other than a regular system of 100 meter lines. A smaller area in Lat. $39^{\circ} 35.0'$, Long. $75^{\circ} 50.8'$ is also used for obtaining gravel from the river bed.

Approved and forwarded,

F. L. Gallen

F. L. Gallen
H. & G. Engineer
Chief of Party

Submitted by,

J. C. Partington
Jr. H. & G. Engineer

STATISTICS

Lay Letter	Statute Miles	Soundings	Positions
a	3.8	151	22
b	16.3	611	96
c	15.0	470	79
d	9.3	393	58
e	23.8	184	125
f	20.7	763	104
g	20.5	729	109
h	22.5	796	118
j	20.7	772	132
k	11.2	462	83
	<hr/>	<hr/>	<hr/>
	163.8	5331	926

Smooth sheet No. H6360 (field no. 1006) was plotted under the immediate supervision of the Chief of Party. The sheet and records have been inspected and are approved.

F.L. Gallen

F.L. Gallen
H. & G. Engineer
Chief of Party

Field Records Section (Charts)

H6360
HYDROGRAPHIC SHEET NO.

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	...926..
Number of positions checked	...18..
Number of positions revised	...0..
Number of soundings recorded	...5331..
Number of soundings revised	...9..
Number of soundings erroneously spaced	...0..
Number of signals erroneously plotted or transferred	...0..

Date: Jan. 9, 1940

Verification by } J.A. McCormick
Review by

Time: 35 hr.

Time: 6 hr.

HYDROGRAPHIC SURVEY NO. H-6360

Smooth Sheet Yes

Boat Sheet Yes

Records; Sounding 4 Vols., Wire Drag Vols., Bomb Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol.#1

Landmarks for Charts (Form 567) Yes

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) ---

Special Chart for Lighthouse Service Yes
(Circular Nov.30, 1933)

Hydrography: Total Days 10 ; Last Date Sept. 28, 1938

Remarks _____

H-6360

	Remarks	Decisions
1		396758
2		395758
3		395758 U.S.G.B
4		395758
5		395758
6		395758
7		395758
8		395758
9		395758
10		395758
11		394759
12		395758
13		395758
14		395758
15		395758 U.S.G.B
16		395759
17		395759
18		395759
19		395758
20		395759
21		395758
22		395758
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES

Survey No. H-6360

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
<u>Elkton</u>											1
<u>Big Elk Creek</u>											2
<u>Little Elk Creek</u>											3
<u>Old Frenchtown Wharf</u>											4
<u>Plum Creek</u>											5
<u>Perch Creek</u>											6
<u>Locust Point</u>											7
<u>Plum Point</u>											8
<u>Henderson Point</u>											9
<u>Paddy Piddles ^{Cove} Point</u>											10
<u>Elk River</u>											11
<u>Little Welch Point</u>											12
<u>Welch ^o Point</u>											13
<u>Back Creek</u>											14
<u>Bull Minnow Point</u>											15
<u>Jones Creek</u>											16
<u>Piney Creek Cove</u>											17
<u>Oldfield Point</u>											18
<u>Herring Creek</u>											19
<u>old Town Point Wharf</u>											20
<u>Courthouse Point</u>											21
<u>Scotland Point</u>											22
											23
											24
											25
											26
											27

Names underlined in red approved
by L. H. Kock on 5/4/39

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT } No. H -6360
~~PHOTOSTAT OF~~ } ~~NO. 1~~

{ received April 10, 1939
 { registered April 13, 1939
 { verified
 { reviewed
 { approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25			
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed
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✓ TBR

TIDE NOTE FOR HYDROGRAPHIC SHEET

Division of Hydrography and Topography:

May 2, 1939.

✓ Division of Charts: Attention: Mr. E. P. Ellis

Plane of reference

~~Tide Reducers~~ are approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 6360

Locality Elk River, Chesapeake Bay, Md.

Chief of Party: F. L. Gallen in 1938.

Plane of reference is mean low water reading

0.9 ft. on tide staff at Town Point Wharf

5.8 ft. below B.M. 3 (U.S.E.D.)

1.5 ft. on tide staff at Old Frenchtown Wharf

5.0 ft. below B.M. 1

Height of mean high water above plane of reference is 2.1 at Town Point;
2.3 at Old Frenchtown.

Condition of records satisfactory except as noted below:



Acting Chief, Division of Tides and Currents.

DIVISION OF CHARTS
Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6360 (1938) FIELD NO. 1006.

Maryland, Chesapeake Bay, Elk River.
Surveyed in Sept., 1938, Scale 1:10,000.
Instructions dated March 31, 1938 (MIKAWA).

Soundings:

Control:

Hand Lead.

3 Point fixes on shore signals.

Chief of Party - F. L. Gallen
Surveyed by - J. C. Partington
Protracted by - G. E. Varnadoe
Soundings plotted by - G. E. Varnadoe
Verified and inked by - J. A. McCormick
Reviewed by - J. A. McCormick, January 9, 1940.
Inspected by - H. R. Edmonston.

1. Shoreline and Signals.

Shoreline is from topographic maps T-5652, T-5653 and T-5655. Signal locations are discussed in the descriptive report, page 1.

2. Depth Curves.

Satisfactory.

3. Sounding Line Crossings.

Several poor crossings of channel lines with cross-channel lines west of long. 75°54' may be due to even recording of unevenly spaced soundings or to an uneven bottom caused by repeated dredging. It is noticeable, however, that most of the shoal spots were obtained on the cross-channel lines.

4. Junctions with Contemporary Surveys.

Junctions with H-6359 (1938) on the east and with H-6363 (1938) on the west are satisfactory.

5. Comparison with Prior Surveys.

H-172 (1846), 1:10,000; H-2367a (1902), 1:10,000; H-2430 (1899), 1:10,000.

H-172 completely covers the area included in the present survey, as do H-2367a and H-2430 combined. Both the 1846 and the 1899-1902 surveys show much deeper water in the Elk River north of Welch Point than was found on the present

survey. Dredging in the main channel into Back Creek has changed that area to some extent. The present survey supersedes the old surveys in the common area.

6. Comparison with Chart 570 (New Print of October 6, 1939).
Chart 1226 (New Print of September 8, 1939).

a. Hydrography.

Hydrography charted in the area covered by the present survey is from surveys discussed in the foregoing paragraphs. Limits and controlling depth of the main ship channel are furnished at frequent intervals by the U. S. Engineers.

b. Aids to Navigation.

All navigational aids in the common area are shown on the present survey substantially as charted.

7. Condition of Survey.

Satisfactory.


8. Compliance with Instructions for the Project.

Satisfactory.

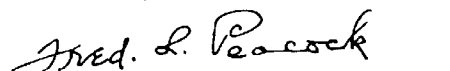
9. Additional Field Work Recommended.

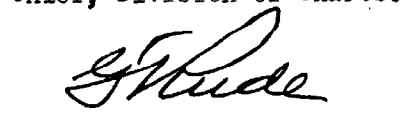
None.

Examined and Approved:


T. B. Reed,
Chief, Section of Field Records.


K.T. Adams
Chief, Division of Charts.


Fred. L. Peacock
Chief, Section of Field Work.


G. H. Hilde
Chief, Division of H. & T.

Applied to Cht 572 May 1940. H.S.H.

Applied to Cht. 570 May 1941 B.R.