

6998

6998

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Diag. 17-3

Type of Survey HYDROGRAPHIC  
Field No. 1015 Office No. H - 6998

LOCALITY

State MARYLAND  
General locality CHOPTANK RIVER  
Locality Mouth of Cabin Creek to Dover Bridge

194 4

CHIEF OF PARTY

Thos. B. Reed

LIBRARY & ARCHIVES

DATE JUL 3 1945

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. H6998

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.

REGISTER No. H - 6998

Field No. 1013

State MARYLAND

General locality CHOPTANK RIVER

Locality Mouth of Cabin Creek to Dover Bridge

Scale 1:10,000 Date of survey 1944

Instructions dated Additional Instructions, Sept. 18, 1942; Sept. 23, 1943 Supplemental Instructions

Vessel (M. V. COWIE) 25 foot skiff

Chief of party Thos. B. Reed

Surveyed by Lieut. Comdr. H. J. Healy and Lieut. (j.g.) John O. Phillips

Soundings taken by ~~fathometer~~ fathometer, graphic recorder, ~~hand lead, wire~~ hand lead, wire and pole

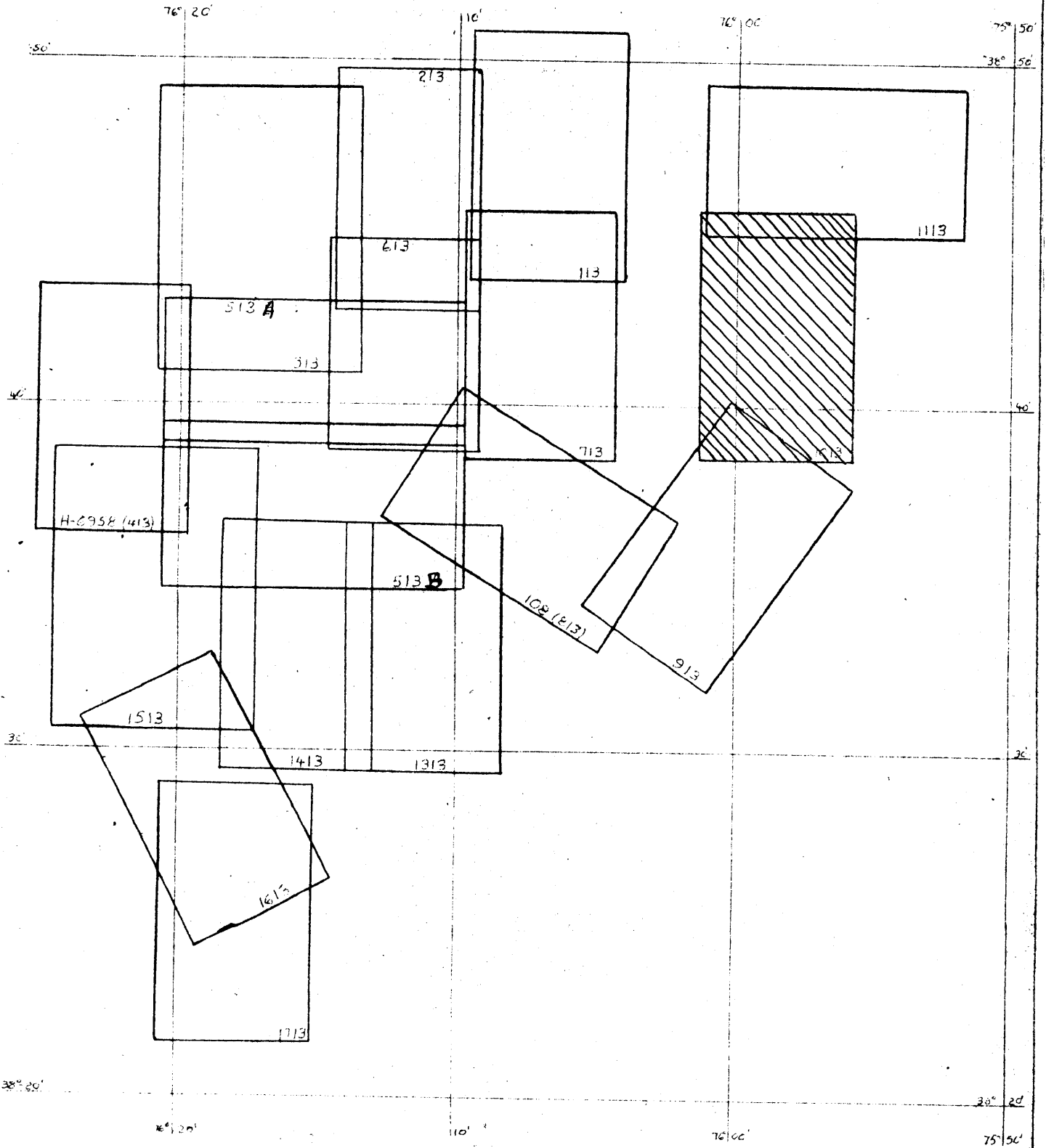
Protracted by B.M. Jones

Soundings penciled by A. G. Atwill

Soundings in ~~fathoms~~ feet at MLW ~~MLW~~

REMARKS: This sheet was processed in the Hydrographic Section, S.E. District, Norfolk, Va.

SHEET LAYOUT  
Project CS-250  
Scale 1:10,000



DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHY SURVEY H- (FIELD NO. 1013)  
CHOPTANK RIVER, MOUTH OF CABIN CREEK TO DOVER BRIDGE  
Scale 1:10,000  
Thos. B. Reed Comdg. M.V. COWIE

This report was written prior to the processing of the smooth sheet at the Norfolk Processing Office.

- A. The project number is CS-250. The date of the Director's Additional Instructions is September 18, 1942, and the date of Supplemental Instructions is September 23, 1943.
- B. The general locality of the survey is Choptank River, Maryland, from the Mouth of Cabin Creek (Latitude 38-36.6) to Dover Bridge. Hydrography was carried up Hunting Creek to the head of navigation at Back Landing Bridge. Field work began on October 17 and ended on October 26, 1944.

There are no contemporary surveys of the area. Junctions were made with Sheet No. 913 (Field) on the south and Sheet No. 1113 (Field) on the north. An index of sheets is included with this report.

- C. All sounding was done with a 25 foot skiff powered with two out-board motors. The hydrographic party based on the M. V. COWIE which was secured alongside a pier at Choptank, Maryland.

The skiff was equipped with 808-A type depth recorder no. 65 which was used for depths greater than about 5 feet. The units were mounted in the keel of the skiff instead of a separate unit. A pole was used for sounding in depths shoaler than about 5 feet.

- D. Portable Automatic Tide Gages were installed on the Choptank River at Dover Bridge (Latitude 38-45.46, Longitude 75-59.05) and Choptank, Maryland, (Latitude 38-40.85, Longitude 75-57.17). Part of the hydrography was accomplished prior to establishing the gage at Choptank. Tide staff readings are recorded in the sounding volumes for the applicable days. The series of observations to determine mean low water on the tide staffs were increased beyond a normal minimum period due to lower than normal tides caused by strong northerly winds.

Direct values from the Choptank gage were used to obtain tide reducers from the southern edge of the sheet to a point about 1-3/4 miles above Choptank, in the vicinity of signal SAG. North of signal SAG either Choptank tides with a time correction of plus 1/2 hour and Ratio of Range of 1.0, or Dover Bridge tides with a time correction of minus 1/2 hour and a high water difference of minus 0.1 foot, were used to a point 1-3/4 miles below Dover Bridge, in the vicinity of signal SAL. In this area the reducers for October 19 and 23 were obtained from the Dover Bridge Gage, and for October 24, 25 and 26 the reducers are from the Choptank gage. North of signal SAL the tide reducers were obtained direct from the gage at Dover Bridge.

30

The points of change have been shown on the boat sheet.

In applying the corrections to high water the full value was applied in the proximity of the time of high water, the value being reduced to zero near the time of low water.

- F. The following is the source of triangulation control stations: Crisfield to Elkton, Maryland, J. Bowie, Jr., 1934.

All topographic stations were obtained from planimetric maps Nos. T-5809, T-5810, T-5811 and T-5713. All signals shown in green on the boat sheet were transferred from the same source.

No planimetric map was available for the upper part of Hunting Creek east of Longitude 75-55.6. Hydrography was carried to Back Landing Bridge, the site of an old landing from which tomatoes were shipped by boat during the canning season until a few years ago.

Signals DAW and EAR (Latitude 38-44) were located by ground measurements from detail on planimetric map No. T-5810. Sketches are shown on the boat sheet.

- G. All shoreline detail was taken from the planimetric maps listed under paragraph "F" above. The date of the surveys is not known but is presumed to be 1941.

Hunting Creek Bridge (Latitude 38-40.58, Longitude 75-56.30) was not shown on planimetric map T-5810 although the bridge has apparently been in place for years. An insert is shown on the boat sheet giving the measurements of the bridge. The ends of the bridge were located by three-point fixes.

The low-water line has been indicated on the boat sheet where possible to determine while doing hydrography. In other cases the low water line is too near the high-water line to permit delineation by soundings.

- H. Soundings were taken with an 808-A type portable depth recorder in depths greater than about 5 feet. In shoaler depths a pole was used. Due to the soft mud it was difficult to secure accurate pole soundings and although the area of the bottom of the pole had been increased with a tin can the pole soundings were still some times deeper than fathometer depths, the value of the difference being in the neighborhood of 1/2 foot.

All soundings were taken on regular fathometer spacings. The proper notations have been made in the records where changes in sounding methods occur.

Bar checks to obtain recorder corrections were made two or three times daily, weather permitting.

28

boat sheet  
destroyed  
and bridge  
data not  
corrected  
to Smith Sound  
3/2

- I. Three-point visual fixes were taken at 1-1/2 or 2 minute intervals to control the hydrography. In Hunting Creek lines were run spaced as shown on the boat sheet. The time was marked when abeam the signals.
- J. The present survey is thought to be complete and adequate to supersede prior surveys for charting purposes. The junction between adjacent surveys is satisfactory. Depth curves can be adequately drawn at the junctions.
- K. No cross-lines were run in narrow channels. In the wider part of the river adequate cross-lines were run.
- M. A generalized comparison with Chart 1225 indicates good agreement between the present survey and the chart. An uncharted wreck, awash at low water, exists at Latitude 38-41.27, Longitude 75-58.68. This is in shallow water and not a hazard to navigation-evidently a small oyster boat or motor boat. 83
- N. There are no dangers or shoals in the area covered by the survey that one would not expect to find in the restricted waters of a river channel.
- O. Coast Pilot information will be submitted on an area basis and none is included in this report.
- P. One bridge crosses navigable waters within the limits of this survey. This is Hunting Creek Bridge across Hunting Creek. It is a timber, highway bridge with a retractable draw, horizontal clearance 24 feet, vertical clearance, when closed, at mean-high water is 2.5 feet. A copy of the United States Corps of Engineers "List of Bridges" was not available for comparison and the bridge was not shown on the ozalid print of the map manuscript.
- Q. Landmarks for Charts are being submitted on Form 567. Following is a list of the objects within the limits of this survey:
- |                                     |                                    |
|-------------------------------------|------------------------------------|
| HOUSE (S.W. GABLE), white, 2-story  | BARN (SOUTH GABLE), white          |
| SILO, white                         | BARN (CUPLOA)                      |
| TANK (ELEVATED), Preston W.T., 1934 | BARN (N.E. GABLE), white           |
| WAREHOUSE (N.W. GABLE), chimney     | HOUSE (S.E. GABLE), stone, 2-story |
| BARN (CUPLOA), large, red           | HOUSE (CHIMNEY), center            |
- R. Geographic names are considered to have been adequately covered by prior surveys.
- Z. A Report on Graphic Recorder Corrections will be submitted on an area basis for the Choptank River.

Tide data for Dover Bridge was transmitted on November 4, 1944, and for Choptank, Maryland, on November 14, 1944.

Approved and forwarded:



Thos. B. Reed  
Comdg. M. V. COWIE

Submitted by:



John O. Phillips  
Lieut. (j.g.) C. & G. Survey

**APPROVAL SHEET**

For Hydrographic Survey, Field No. 1013

Project No. CS-250, Choptank River, Maryland

November 22, 1944

The boat sheet and accompanying records for the above survey have been inspected and are approved. The boat sheet was examined daily while the work was in progress and the survey is believed to be complete.

A handwritten signature in cursive script, reading "Thos B Reed", with a long horizontal flourish extending to the right.

Thos. B. Reed  
Chief of Party

STATISTICS FOR HYDROGRAPHIC SURVEY H-  
 (Field No. 1013)  
 M.V. COWIE  
 CS 250

Vol. No.	Day	Letter	Date	No. Snags.	No. Pos.	Sta. Miles.
1		a	Oct. 17	252	141	22.3
1		b	Oct. 18	221	167	25.8
2		c	Oct. 19	67	97	14.6
2		d	Oct. 20	47	33	5.2
2		e	Oct. 23	19	74	12.9
2,3		f	Oct. 24	283	117	22.1
3		g	Oct. 25	329	157	28.8
3		h	Oct. 26	282	76	8.8
TOTALS				1500	862	140.5
AREA				3.4 sq. mi.		



TIDE NOTE TO ACCOMPANY  
HYDROGRAPHIC SURVEY NO (Field No. 1013)  
M. V. COWIE  
Project CS-250

Two tide stations were used to reduce the soundings on this survey. They were located as listed below:

Name	Latitude and Longitude	Low-water of staff
Dover Bridge, Maryland	38-45.46 75-59.05	1.3
Choptank, Maryland	38-40.85 75-57.17	1.7

Tide staff readings were obtained at Choptank, Maryland, on October 17, 18, 19, 20, 23 and 24, and are recorded under their respective dates in Sounding Volumes Nos. 1 and 2.

Direct values of the Choptank gage were used to obtain tide reducers for soundings from the southern edge of the sheet to a point about 1-3/4 miles above Choptank, in the vicinity of signal SAG. North of signal SAG either Choptank tides with a time correction of plus 1/2 hour and a Ratio of Range of 1.0, or Dover Bridge Tides with a time correction of minus 1/2 hour and a high water difference of minus 0.1 foot, were used to a point 1-3/4 miles below Dover Bridge, in the vicinity of signal SAL. The reducers for October 19 and 23 were obtained from the Dover Bridge gage, and for October 24, 25 and 26 they were obtained from the Choptank gage. North of signal SAL the tide reducers were obtained direct from the gage at Dover Bridge.

The points of change have been shown on the boat sheet.

In applying the corrections to high water the full value was applied in the proximity of high water, the value being reduced to zero near low water.

(30)

VELOCITY CORRECTION ABSTRACT  
 Hydrographic Sheet H- (Field 1013)  
 Project CS 250  
 1944

Corrections to Depth, Feet

For "a" Day, Oct. 17, 1944  
 Gain 8

Correction	From	To
+0.6		4.5
+0.4	5.0	12.0
+0.2	12.5	20.0
0.0	20.5	27.5
-0.2	28.0	35.5
-0.4	36.0	42.5
-0.6	43.0	50.0
-0.8	50.5	58.0

For "e", "f", "g", "h", Days  
 Oct. 23, 24, 25, 26, 1944  
 Gain 8

Correction	From	To
+0.4		2.5
+0.2	3.0	9.0
0.0	9.5	15.5
-0.2	16.0	22.0
-0.4	22.5	29.0
-0.6	29.5	35.0
-0.8	35.5	41.5
-1.0	42.0	47.5
-1.2	48.0	54.0
-1.4	54.5	60.0
-1.6	60.5	63.0

Gain 8

For "b", "c", "d" Days  
 Oct. 18, 19, 20, 1944

Correction	From	To
+0.4		10.0
+0.2	10.5	21.5
0.0	22.0	33.5
-0.2	34.0	46.0
-0.4	46.5	58.5
-0.6	59.0	60.0

For "B" Scale add -0.7 to above

For All Days -- Gain 0

Correction	From	To
+0.2		6.0
0.0	6.5	9.0

For "B" Scale add -0.7 to above


A D D E N D U M

to accompany

HYDROGRAPHIC SHEET H-6998 (1013 Field)

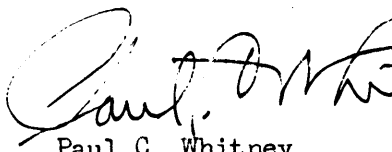
Topographic Signal "VET" was transferred from the boat sheet as its location was not shown on the ozalid or reverse print available at this office.

Respectfully submitted,

  
Isadore M. Zeskind  
Cartographic Engineer

Norfolk, Va.  
June 28, 1945

Approved & Forwarded

  
Paul C. Whitney  
Supervisor, S.E. District

**GEOGRAPHIC NAMES**

Survey No.

**H6998**

Name on Survey

A

B

C

D

E

F

G

H

K

On Chart  
No.

On previous survey  
No.

On U. S. Quadrangle  
Maps

From local  
information

On local Maps

P. O. Guide or Map

Rand McNally Atlas

U. S. Light List

1

2

3

4

5

6

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Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. ..**H6998**

Records accompanying survey:

Boat sheets **1**...; sounding vols. ..**3**.; wire drag vols. ....;  
bomb vols. ....; graphic recorder rolls ..**8**..  
special reports, etc. ....  
.....

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

Number of positions on sheet	.....
Number of positions checked	.....
Number of positions revised	.....
Number of soundings recorded	.....
Number of soundings revised (refers to depth only)	.....
Number of soundings erroneously spaced	.....
Number of signals erroneously plotted or transferred	.....
Topographic details	Time .....
Junctions	Time .....
Verification of soundings from graphic record	Time .....

Verification by.....Total time ..... Date .....

Review by ..... Time ..... Date .....

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H- **H6998**

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.
3. All reference to survey sheets mentioned in the descriptive report include the registry number and year.
4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.
5. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken.
6. All positions verified instrumentally were check marked in the sounding records.
7. All critical soundings are clear and legible and are a little larger than the adjacent soundings.
8. The metal protractor has been checked within the last three months.
9. The protracting and plotting of all bad crossings were verified.
10. All detached positions locating critical soundings, rocks or buoys were verified.
11. The boat sheet was compared with the smooth sheet.

12. The spacing of soundings as recorded in the records was closely followed.
13. The bottom characteristics were shown on outstanding shoals.
14. The reduction and plotting of doubtful soundings were checked.
15. The transfer of contemporary topographic information was carefully examined.
16. All junctions were transferred and overlapping curves made identical.
17. The notation "JOINS H- (19--)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.
18. The depth curves have been inspected before inking.
19. All triangulation stations and transfer of topographic and hydrographic signals were checked.
20. Heights of rocks were checked against range of tide.
21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.
22. Unnecessary pencil notes have been removed.
23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.
24. The low water line and delineation of shoal areas have been properly shown.
25. Degree and minutes values and symbols have been checked.
26. Questionable soundings have been checked on the fathograms.

27. Source of shoreline and signals (when not given in report).
28. All notes on sheet are in accordance with figure 171 in the Hydrographic Manual.
29. All aids located, with those on contemporary topographic sheets, have been shown on survey.
30. Depth curves were satisfactory except as follows:
31. Sounding line crossings were satisfactory except as follows:
32. Junctions with contemporary surveys were satisfactory except as follows:
33. Condition of sounding records was satisfactory except as follows:
34. The protracting was satisfactory except as follows:
35. The field plotting of soundings was satisfactory except as follows:
36. Notes to reviewer:

Verified by

Date



Corrections to Depth

+1.0    +0.5    0    -0.5    -1.0    -0.5    0    -0.5

5

Gain 8  
Corrections to Depth  
Feet

"a" Day - October 17, 1944

+0.6    to 4.5 ✓  
+0.4    5.0 to 12.0 ✓  
+0.2    12.5 to 20.0 ✓  
0.0    20.5 to 27.5 ✓  
-0.2    28.0 to 35.5 ✓  
-0.4    36.0 to 42.5 ✓  
-0.6    43.0 to 50.0 ✓  
-0.8    50.5 to 58.0 ✓

"b" Day - Oct. 18, 1944  
"c" Day - Oct. 19, 1944  
"d" Day - Oct. 20, 1944

10

15

"a" Day - Oct. 17, 1944

20

Gain 8  
Corrections to Depth  
Feet

"b", "c" & "d" Days - Oct. 18, 19, 20  
1944

+0.4    to 10.0 ✓  
+0.2    10.5 to 21.5 ✓  
0.0    22.0 to 33.5 ✓  
-0.2    34.0 to 46.0 ✓  
-0.4    46.5 to 58.5 ✓  
-0.6    59.0 to 60.0 ✓

25

30

For "B" Scale add -0.7 to above

35

All days Gain 0  
7.2 to 6.0  
0.0 to 6.5 to 7.0

40

45

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55

GRAPHIC RECORDER CORRECTIONS  
U.S. Coast and Geodetic Survey  
Ship: (M.V. COWIE) 25 ft. Skiff  
Thos. B. Reed, Comdg.  
These corrections are to be  
applied to graphic recorder sound-  
ings on the dates indicated, on  
hydrographic survey No. 1013 (Field)  
Upper Choptank River, Cabin Creek  
to Dover Bridge, Md., Project CS-250

Done by G

Corrections to Depth

+0.5      0      -0.5      -1.0      +0.5      0      -0.5      -1.0

5  
10  
15  
20  
25  
30  
35  
40  
45  
50  
55

All Days - Oct. 17 to 26, 1944

Gain 0  
Corrections to Depth  
Feet  
All Days  
+0.2 to 6.0  
0.0 6.5 to 9.0

Gain 8  
Corrected Corrections to Depth  
Feet  
"e", "f", "g", & "h" Days - October 23, 24, 25 & 26, 1944

- +0.4 to 2.5 ✓
- +0.2 3.0 to 9.0 ✓
- 0.0 9.5 to 15.5 ✓
- 0.2 16.0 to 22.0 ✓
- 0.4 22.5 to 29.0 ✓
- 0.6 29.5 to 35.0 ✓
- 0.8 35.5 to 41.5 ✓
- 1.0 42.0 to 47.5 ✓
- 1.2 48.0 to 54.0 ✓
- 1.4 54.5 to 60.0 ✓
- 1.6 60.5 to 63 ✓

For B Scale add -0.4 to above.

"a" Day - Oct. 23, 1944  
"f" Day - Oct. 24, 1944  
"g" Day - Oct. 25, 1944  
"h" Day - Oct. 26, 1944

GRAPHIC RECORDER CORRECTIONS  
U. S. Coast and Geodetic Survey  
Ship: (M. V. COWIE) 25 foot Skiff  
Thos. B. Reed, Comdg.  
These corrections are to be applied  
to graphic recorder soundings on  
hydrographic survey No. 1013 (Field),  
Upper Choptank River, Cabin Creek to  
Dover Bridge, Md. Project CS-250

Comp by JRF  
✓ by A.L.P.

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 6998.

Records accompanying survey:

Boat sheets 1; sounding vols. 3; wire drag vols. ....;  
bomb vols. ....; graphic recorder rolls 8;  
special reports, etc. ....  
.....

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

Number of positions on sheet	.....	861
Number of positions checked	.....	36
Number of positions revised	.....	0
Number of soundings revised (refers to depth only)	.....	0
Number of soundings erroneously spaced	.....	20
Number of signals erroneously plotted or transferred	.....	0
Topographic details	Time	12 hr.
Junctions	Time	4 hr.
Verification of soundings from graphic record	Time	6 hr.

Verification by C. P. Reed..... Total time 137 hr. Date 7-25-46

Reviewed by J. F. Jordan..... Time 9 Date 7-29-46

GEOGRAPHIC NAMES  
Survey No. 6998

Name on Survey												
	A	B	C	D	E	F	G	H	K			
<u>Choptank River</u>												1
<u>Hunting Creek</u>												2
<u>Choptank</u>												3
<u>Dover Bridge</u>				(location of tide staff)								4
				"	"	"	"	"	"	"		5
												6
												7
												8
												9
												10
												11
												12
												13
												14
												15
												16
												17
												18
												19
												20
												21
												22
												23
												24
												25
												26
												27

Names underlined in red approved  
by L. Heck on 7/30/46

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6998

FIELD NO. 1013

Maryland, Choptank River, Choptank to Dover Bridge  
Surveyed in October, 1944                      Scale 1:10,000  
Project No. CS-250

Soundings:

808 Fathometer  
Hand lead  
Pole

Control:

Three-point fixes on shore  
signals

Chief of Party - T. B. Reed  
Surveyed by - H. J. Healy and J. O. Phillips  
Protracted by - B. M. Jones  
Soundings plotted by - A. G. Atwill  
Verified and inked by - C. P. Reed  
Reviewed by - G. F. Jordan, July 29, 1946  
Inspected by - R. H. Carstens

1. Shoreline and Control

Shoreline and control were originally from air photographic manuscripts: T-5713, T-5809 and T-5810. However, it was necessary for the verifier to make extensive shoreline corrections to bring the smooth sheet into agreement with the latest topographic surveys: T-8250, T-8251, T-8259 and T-8260.

Additional signals which were selected in the field from ozalids of the above manuscripts were transferred from the boat sheet and shown in green color. Other signals were located by sextant fixes.

2. Sounding Line Crossings

Satisfactory.

3. Bottom Configuration

The bottom along the axis of this river varies from 12 feet at lat.  $38^{\circ} 41.4'$ , long.  $75^{\circ} 58.5'$ , to 59 feet at lat.  $38^{\circ} 41.8'$ , long.  $75^{\circ} 59.7'$ .

4. Junctions

A satisfactory junction on the north is effected with H-6996 (1944). The junction on the south will be considered when H-7011 (1944) is verified.

5. Comparison with Prior Surveys

H-202 (1848) on a scale of 1:20,000 is the only prior survey in this river. Prior depths are not in conflict with depths on the present survey. The present survey having closer development on a larger scale supersedes the prior survey.

6. Comparison with Chart 1225 (Latest print of March 9, 1946)

a. Hydrography

This small scale chart does not provide a satisfactory medium for comparison of depths. No conflicts between charted detail and the present survey were noted.

b. Aids to Navigation

Charted aids to navigation are in agreement with aids located on the present survey. No new features which might require marking were found.

7. Condition of Survey

a. The sounding records are complete in all detail.

b. The descriptive report has been mislaid in the Division of Photogrammetry and is not available at this time.

*Report found.*

c. The smooth plotting was excellent.

d. Two 17-ft. soundings on parallel lines in 22-ft. depths at lat.  $38^{\circ} 44.0'$ , long.  $76^{\circ} 00.78'$  were not investigated. However, it is doubtful that a danger to navigation exists here. ✓

e. The 6-ft. sounding in 10-ft. depths at lat.  $38^{\circ} 41.82'$ , long.  $75^{\circ} 59.61'$  was not investigated. ✓

8. Compliance with Prior Instructions

Satisfactory.

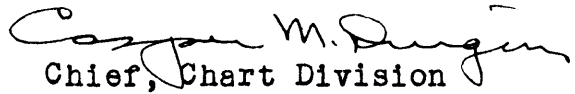
9. Additional Field Work

This basic survey provides excellent coverage and no additional work is required.

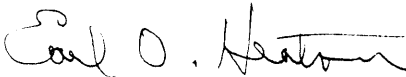
Examined and approved:



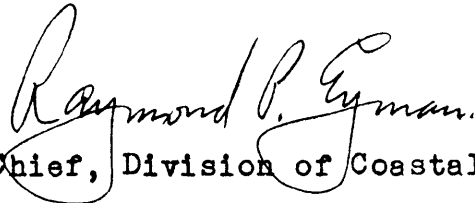
Chief, Nautical Chart Branch



Chief, Chart Division



Chief, Section of Hydrography



Chief, Division of Coastal Surveys

TAC  
HWM

## TIDE NOTE FOR HYDROGRAPHIC SHEET

July 9, 1945.

~~Division of Hydrography and Topography:~~

✓ Division of Charts: Attention: H. W. MURRAY

Plane of reference approved in  
3 volumes of sounding records for

HYDROGRAPHIC SHEET 6998

Locality Mouth of Cabin Creek to Dover Bridge, Choptank River, Maryland.

Chief of Party: Thos. B. Reed in 1944  
Plane of reference is mean low water reading  
1.7 ft. on tide staff at Choptank  
5.2 ft. below B. M. 1  
1.3 ft. on tide staff at Dover Bridge  
5.1 ft. below B. M. 1

Height of mean high water above plane of reference is 1.6 feet at  
Choptank; 1.7 feet at Dover Bridge.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.



