

6996

6996

Form 504 U. S. COAST AND GEODETIC SURVEY DEPARTMENT OF COMMERCE DESCRIPTIVE REPORT	
Type of Survey HYDROGRAPHIC	
Field No. <u>1113 & 1213</u> Office No.	
LOCALITY	
State MARYLAND	
General locality CHOPTANK RIVER	
Locality <u>Dover Bridge to Todd Wharf</u> Upper Choptank River and Tuckahoe Creek	
<u>194 4</u>	
CHIEF OF PARTY	
Thos. B. Reed	
LIBRARY & ARCHIVES	
DATE <u>MAY 28 1945</u>	

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.
H6906

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-6 996

Field No. 1113

State Maryland

General locality Choptank River

Locality Dover Bridge to ^{Todd Wharf} Mouth of Tuckahoe Creek

Scale 1:10,000 Date of survey October, 1944

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

Vessel (M. V. COMIE) 25 foot skiff

Chief of party Thos. B. Reed

Surveyed by John O. Phillips

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

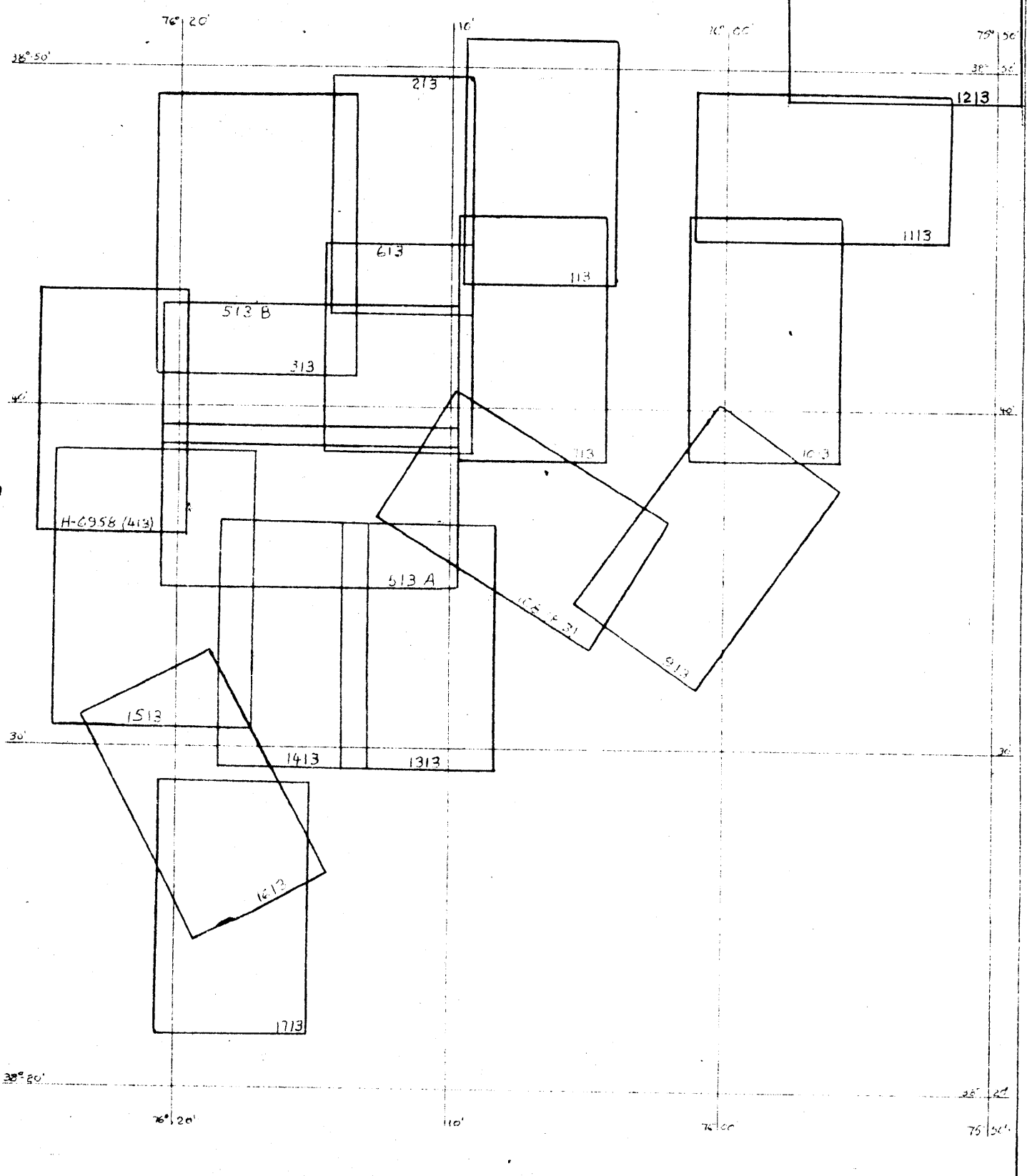
Protracted by Betsy Jones

Soundings penciled by A. G. Atwill

Soundings in fathoms feet at MLW ~~MLLW~~

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

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



DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEYS H-6996 & H-6997
(Field Nos. 1113 & 1213)

Cheptank River, Dover Bridge to Tuckahoe Creek, Md.,
and Upper Cheptank River, Tuckahoe Creek to Greensboro, and
Tuckahoe Creek, Md.

Scale 1:10,000

Thos. B. Reed

Comdg. M. V. COWIE

This report was written prior to the processing of the smooth sheets 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 these surveys is the upper part of the Cheptank River, north of Latitude 38-45.2, and Tuckahoe Creek. Field work began on October 4 and ended on October 19, 1944. ✓

There are no contemporary surveys of the area. Sheet Field No. 1113 joins with Sheet Field No. 1013 on the south. An index of sheets is included with this report. ^{H-6996}

- C. All sounding was done with a 25 foot skiff powered with two outboard meters. The hydrographic party based on the M. V. COWIE which was secured alongside a bulkhead at Williston, 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 "fish". A pole was used for sounding in shallower depths. ✓

- D. Portable Automatic Tide Gages were installed on the Choptank River at Dover Bridge, (Lat. 38-45.46, Long. 75-59.56), and Greensboro, Md., (Lat. 38-58.15, Long. 75-48.42), and on Tuckahoe Creek at Wayman's Wharf (now in ruins) (Lat. 38-53.27, Long. 75-56.56). At Wayam's Wharf the hydrography was accomplished prior to establishing the tide gage. Tide staff readings are recorded in the sounding volume for the applicable days. ✓

On Sheet ^{H-6996} 1113 all tide reducers were obtained from the gage at Dover Bridge. Direct values were used to a point about $2\frac{1}{2}$ miles north of Dover Bridge, in the vicinity of signal ART. The point is indicated on the boat sheet. Northeast of this point a time correction of plus one-half hour and a height correction of plus 0.2 feet for high water were used.

H-6997 (1944)

On Sheet 1213 tide reducers for the Cheptank River were entered from either the gage at Greensboro ^{or} the gage at Dover Bridge. On the Cheptank River from the southern edge of the sheet to the vicinity of signal LAY at Latitude 38-52.4 reducers from both gages were used. A time correction of minus 1 hour, and high water correction of minus 0.4 feet were used for the Greensboro gage. A time correction of plus 1-hour and a high water correction of plus 0.4 feet were used for the Dover Bridge gage. Except for October 11 and 13 the reducers are from the Greensboro gage.

North of signal LAY the Greensboro gage was used with a time correction of minus one-half hour and a high water correction of minus 0.2 feet to the vicinity of signal BUS at Latitude 38-56.2. North of signal BUS the reducers were entered direct from the Greensboro gage.

Applies only
to
H-6997

On Tuokahee Creek the gage at Wayman's Wharf was used to enter all tide reducers. From the mouth of the creek to the vicinity of signal RIO at Latitude 38-52.0 a time correction of minus one-half hour and a high water correction of minus 0.3 foot were applied. North of signal RIO the reducers were entered direct from the staff readings.

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

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 in the proximity of low water. It was not desirable to use the ratio of ranges due to the raising and lowering of the general tide level by the wind.

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

All topographic stations, except for several explained below, were obtained from planimetric maps Nos. T-5811, T-5813, T-5814, T-5816, T-5817 and T-5817. All signals shown in green on the boat sheets were transferred from the ^{boat sheets} ~~same source~~.

In the vicinity of Latitude 38-51 on the Cheptank River the hydrographic locations of Day Markers could not be checked and additional work was necessary to establish the necessary control. Day Marker No. 56 was located by a distance and direction from a "T-road" intersection, using another road intersection for an azimuth initial. A sextant and stadia traverse was then run from a topographic station along the river to Day Marker No. 56. The results of the traverse are submitted with the boat sheets but no number has been assigned to the survey.

H-6997

- G. All shoreline 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.

Corrections and additional detail have been noted on the boat sheet in red ink.

Several discrepancies were noted in the interpretation of the outside edge of the marsh of tuckahoes. The discrepancy can probably be partly explained by differences in the density of the tuckahoes from year to year. Along the east bank of the Cheptank River from Latitude 38-50.05 to Latitude 38-50.95 the tuckahoes are not especially heavy this year and a boat can be driven to the edge of the trees at moderate stages of the tide. This change has been noted on the boat sheet. A change of the opposite nature was noted at signal PIT on Tuckahoe Creek at Latitude 38-50.7, Longitude 75-55.5. Here the tuckahoes south of the signal are too dense to permit the boat to be forced through. Since the tuckahoes die during the winter and the growth sinks to the bottom it is felt that the outside of all growths of tuckahoes should not be shown as a marsh line.

H-6997

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 soundings with the pole and even after increasing the area of the bottom of the pole with a tin can the pole soundings were still some times deeper than the fathometer.

All soundings were taken on regular fathometer spacings, the man operating the fathometer calling out the signal to sound. The proper notations have been made in the records where changes in sounding methods occur.

Bar checks to obtain recorder corrections were made twice daily.

- I. In the upper part of the Cheptank River and in Tuckahoe Creek channel, lines were run spaced as shown on the boat sheet. The time was marked when abeam the signals. In other areas three-point visual fixes were taken at $1\frac{1}{2}$ or 2 minute intervals.

- 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.
- K. No cross lines were run in the narrow channels. In the wider part of the river adequate cross lines have been run.
- M. A generalized comparison with Chart 1225 indicates good agreement between the present survey and the chart.
- N. There are no dangers or shoals in the area covered by these surveys 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 fixed aid to navigation was relocated by sextant topography, and in addition two other aids were located by the same means. Form 567 is being submitted. The other fixed aids were located by the ^{Topo} hydrographic party and the positions should be submitted by the compilation office.

Two power lines cross the navigable water within the limits of these surveys. The one north of Denton has a vertical clearance of 142 feet above high water, measured by a sextant angle. The power line over Tuckahoe Creek has an estimated vertical clearance of 75 feet.

A number of bridges cross the navigable waters within the limits of these surveys and they are listed below:

Bridge	Type	Horiz. Clearance	Vertical Clearance
Dover Bridge	Hwy. Swing	79 ft. each opening	10 ft. above M.H.W.
Denton Hwy.	Rolling lift	48 ft.	3½ ft. " "
Denton R.R.	Swing	49½ ft. " "	6 ft. " "
Greensboro Hwy.	Fixed	38 ft. (center span)	9 ft. " "
Tuckahoe Bridge	Hwy. Retractable draw	37½ ft.	3 ft. " "
Hillsboro Hwy.	Fixed	9 ft.	16 ft. " "

H-6997

All of the above horizontal and vertical clearances have been measured in the field. A copy of the United States Corps of Engineers "List of Bridges" was not available for comparison. The clearances were compared with the values shown on the ozalid prints of the topographic sheets and notes concerning the discrepancies found have been made on the boat sheet.

The cable crossing at Latitude 38-50.6, Longitude 75-52.1, is as shown on the ozalid print of the topographic sheet. The cable crossing at Dover Bridge still remains.

- Q. Landmarks for charts are being submitted on Form 567. Following is a list of the objects within the area of these surveys:

HOUSE (CUPOLA), old	LOG CABIN (CHIMNEY)
STACK (TALLEST OF TWO), cannery	BARN (PEAK OF ROOF), green
HOUSE (SOUTH GABLE), white	HOUSE (CENTER GABLE), brick
HOUSE (CHIMNEY), white stucco	HOUSE (EAST GABLE), shingle
HOUSE (WEST GABLE), white, low	STEEPLE, church
HOUSE (EAST GABLE), 2-story, brown	BARN (EAST GABLE)
TOWER, W. power line tower	HOUSE (S.E. CHIMNEY), shingle
TOWER, E. power line tower	HOUSE (CHIMNEY), old
TANK (ELEVATED)	BOAT HOUSE (N.W. GABLE), old
HOUSE (GRAY), signal END	WINDMILL
HOUSE (SPIRE), " AXE	
BUILDING (S.W. GABLE)	

- R. Geographic names are considered to have been adequately covered by prior mapping surveys.
- Z. A Report on Graphic Recorder Corrections will be submitted on an area basis for the Choptank River.

Tide data for Dover Bridge, Greensboro, and Wayman's Wharf, Maryland was transmitted on November 4, 1944.

Respectfully submitted,

John O. Phillips
John O. Phillips
Lieut. (j.g.) C&GS

Approved and forwarded:

Thos. B. Reed
Thos. B. Reed
Lieut. Comdr. C&GS
Commanding M. V. COWIE

STATISTICS FOR HYDROGRAPHIC SURVEYS H-6996, H-6997
 (Field Nos. 1113, 1213)
 M.V. COWIE
 Project CS 250

Vol. No.	Day Letter	Date	No. Sndgs.	No. Pos.	Sta. Miles
Field No. 1113 H-6996					
1	a	Oct. 11	---	68	14.6
1	b	Oct. 12	239	187	28.0
1,2	c	Oct. 13	75	78	12.5
2	d	Oct. 19	---	35	5.0
TOTALS			314	368	60.1
AREA			1.1 sq. mi.		

Field No. 1213 H-6997 (1944)					
1	a	Oct. 4	---	47	11.8
1	b	Oct. 5	---	116	25.9
1	c	Oct. 6	41	45	6.5
2	d	Oct. 9	10	33	2.6
2	e	Oct. 10	132	130	31.2
2	f	Oct. 11	7	58	13.4
2	g	Oct. 13	45	55	6.7
TOTALS			235	484	98.1
AREA			2.4 sq. mi.		

APPROVAL SHEET

For Hydrographic Surveys, Field Nos. 1113 and 1213^{H-6796} ^{H-6797}

Project no. CS-250, Choptank River, Md.

November 21, 1944

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



Thos. B. Reed
Chief of Party

(30) *km*

TIDE NOTE TO ACCOMPANY
HYDROGRAPHIC SURVEYS H-6996 & H-6997 (Field Nos. 1113 & 1213)
MVV. COWIE
Project CS-250

Three tide stations were used to reduce the soundings on these surveys. They were located as listed below:

Name	Latitude and Longitude	Low-water on staff
Dover Bridge	38-45.46 75-59.05	1.3
Greensboro, Md.	38-58.15 75-48.42	1.4
Wayman Wharf, Tuckahoe Creek, Md.	38-53.27 75-56.56	2.0

Tide staff readings were obtained at Wayman Wharf on October 10 and 11 and are recorded in Volume 2, Sheet 1213.

H-6996
On Sheet 1113 all tide reducers were obtained from the gage at Dover Bridge. Direct values were used to a point about $2\frac{1}{2}$ miles above the bridge in the vicinity of signal ART. The point is indicated on the boat sheet. Above this point a time correction of plus $\frac{1}{2}$ hour and a height correction of plus 0.2 for high water were used.

H-6997
On Sheet 1213 tide reducers were entered from either the gage at Greensboro or the gage at Dover Bridge for soundings in the Choptank River. From the southern edge of the sheet to the vicinity of signal LAY at Latitude 38-52.4 reducers from both gages were used. A time correction of minus 1 hour, and a high water correction of minus 0.4 foot were used for the Greensboro gage. A time correction of plus 1 hour and a high water correction of plus 0.4 foot were used for the Dover Bridge gage. Except for October 11 and 13 the reducers entered in the sounding volumes are from the Greensboro gage.

North of signal LAY the Greensboro gage was used with a time correction of minus $\frac{1}{2}$ hour and a high water correction of minus 0.2 foot to the vicinity of signal BUS at Latitude 38-56.2. North of signal BUS the reducers were entered direct from the Greensboro gage.

On Tuckahoe Creek the gage at Wayman Wharf was used to enter all tide reducers. From the mouth of the creek to the vicinity of signal RIO at Latitude 38-52.0 a time correction of minus $\frac{1}{2}$ hour and a high water correction of minus 0.3 foot were applied. North of signal RIO the reducers were entered direct from the staff readings.

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

H-6997

TIDE NOTE TO ACCOMPANY
HYDROGRAPHIC SURVEYS H-6996 & H-6997 (Field Nos. 1113 & 1213)

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 in the proximity of low water. It was not desirable to use the ratio of ranges due to the raising and lowering of the general tide level by the wind.

DEPTH RECORDER CORRECTIONS
 HYDROGRAPHIC SURVEYS H-6996 & H-6997
 (Field Nos. 1113 and 1213)
 Project CS-250
 1944

Field No. 1113 H-6996

For "a", "b", "c" and "d" days, October 11, 12, 13 & 19, 1944

Gain 8			Gain 0		
Correction	From	To	Correction	From	To
+0.4		8.5	+0.2		4.5
+0.2	9.0	18.5	0.0	5.0	9.0
0.0	19.0	28.5			
-0.2	29.0	38.0			
-0.4	38.5	48.5			
-0.6	49.0	59			

Field No. 1213 H-6997

For "a", "b" & "c" days
 October 4, 5, 6

For "d", "e", "f" & "g" days
 October 9, 10, 11 & 13

Gain 8			Gain 8		
Correction	From	To	Correction	From	To
+0.4		4.5	+0.4		8.0
+0.2	5.0	16.0	+0.2	8.5	18.0
0.0	16.5	26.0	0.0	18.5	28.0
-0.2	27.0	37.0	-0.2	28.5	38.5
-0.4	37.5	40	-0.4	39.0	42

For all days
 October 4 to 13

Gain 0

Correction	From	To
+0.4		1.5
+0.2	2.0	5.0
0.0	5.5	8.5
-0.2	9.0	12.0

DEPTH REC ORDER

0.0 10.0
1.0 20.0
2.0 30.0
3.0 40.0
4.0 50.0
5.0 60.0
6.0 70.0
7.0 80.0
8.0 90.0
9.0 100.0

10.0 110.0
11.0 120.0
12.0 130.0
13.0 140.0
14.0 150.0
15.0 160.0
16.0 170.0
17.0 180.0
18.0 190.0
19.0 200.0

20.0 210.0
21.0 220.0
22.0 230.0
23.0 240.0
24.0 250.0
25.0 260.0
26.0 270.0
27.0 280.0
28.0 290.0
29.0 300.0

30.0 310.0
31.0 320.0
32.0 330.0
33.0 340.0
34.0 350.0
35.0 360.0
36.0 370.0
37.0 380.0
38.0 390.0
39.0 400.0

40.0 410.0
41.0 420.0
42.0 430.0
43.0 440.0
44.0 450.0
45.0 460.0
46.0 470.0
47.0 480.0
48.0 490.0
49.0 500.0

H-6996

Date	Day	Volume	Soundings	Position	Statute Miles	Total Miles
10-11-44	a	1	0	68	12.8	15.0
10-12-44	b	1	239	187	24.5	29.3
10-13-44	c	1 & 2	75	78	10.9	18.2
10-19-44	d	2	0	35	4.4	6.6
		Totals	314	368	52.6	69.1

A D D E N D U M

to accompany

HYDROGRAPHIC SHEET H-6996 (Field No. 1113)

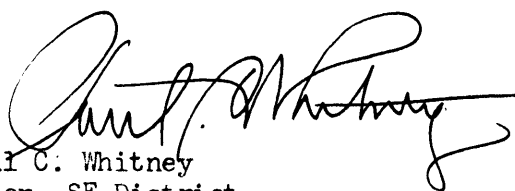
This is a combined report for Hydrographic Sheet H-6996 and H-6997. An addendum will be forwarded with Sheet H-6997 and should be made part of this report.

Respectfully submitted,


Isadore M. Zeskind
Cartographic Engineer

Norfolk, Va.
June 18, 1945

Approved & Forwarded


Paul C. Whitney
Supervisor, SE District

Please attach these correction graphs to
the combined descriptive report for sheets
Nos. 1113 and 1213 (Field Nos.) Project CS-250.

H-6996

H-6997

Corrections to Depth

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

5
10
15
20
25
30
35
40
45
50
55

Gain "0"
Corrections to Depth
Feet
All Days

+0.2 to 4.5
0.0 5.0 to 9.0

Gain: 8
Corrections to Depth
Feet

"a", "b", "c" & "d" Days*
Oct. 11, 12, 13 & 19, 1944

"a" Day - Oct. 11, 1944
"b" Day - " 12, "
"c" " " 13, "
"d" " " 19 "

+0.4	to 8.5
+0.2	9.0 to 18.5
0.0	19.0 to 28.5
-0.2	29.0 to 38.0
-0.4	38.5 to 48.5
-0.6	49.0 to 59

bottom.

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 the
dates indicated, on hydrographic survey
No. 1113 (Field) Upper Choptank
River, Dover Bridge to the Mouth
of Tuckahoe Creek, Md. Project CS-250

Comp'd by *BRZ*
✓ by *A.L.P.*

TIDE NOTE FOR HYDROGRAPHIC SHEET

June 27, 1945.

~~Division of Hydrography and Topography:~~

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

Plane of reference approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 6996

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

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

Height of mean high water above plane of reference
is 1.7 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES

Survey No. H-6996

Name on Survey	Source										
	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			
<u>Maryland</u>				(for title)					USGB	1	
<u>Choptank River</u>				(" ")						2	
<u>Dover Bridge</u>				(location of tide staff)						3	
<u>Providence Landing</u>										4	
<u>Kingston Landing</u>									USGB	5	
<u>McCarty Wharf</u>									"	6	
<u>Ganey Wharf</u>									"	7	
<u>Gilpin Point</u>										8	
<u>Todd Wharf</u>										9	
<u>Tuckahoe Creek</u>										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 5/20/46

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. ..H6996

Records accompanying survey:

Boat sheets 1...; sounding vols. .2...; wire drag vols.;
 bomb vols.; graphic recorder rolls .4...;
 special reports, etc.

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

Number of positions on sheet		.368.
Number of positions checked		.24.
Number of positions revised		..6..
Number of soundings recorded		2,208 (approx.)
Number of soundings revised (refers to depth only)		..3..
Number of soundings erroneously spaced		..1..
Number of signals erroneously plotted or transferred		..0..
Topographic details	Time	..2..
Junctions	Time	..0..
Verification of soundings from graphic record	Time	.123.

Verification by *Calvin L. Kitter* Total time 125. Date *May 7, 1946*

Review by *R. H. Carstens* Time 26 hrs Date *May 20, 1946*

McLean 2228
RAC ✓

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

No. H **H6996**
No. T

received
registered
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)	Exit		
24			
25			
26			
(30)	m		
40			
62			
63			
82	Jones		
✓ (83)	Pg 4	RWT	
88			
90			

RETURN TO

✓ 82	CP
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DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6996

FIELD NO. 1113

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

Soundings:

Control:

Pole
808 Fathometer

Sextant fixes on shore signals

Chief of Party - T. B. Reed
Surveyed by - J. O. Phillips
Protracted by - B. Jones
Soundings plotted by - A. G. Atwill
Verified and inked by - C. L. Kittleson
Reviewed by - R. H. Carstens, May 20, 1946
Inspected by - H. W. Murray

1. Shoreline and Signals

The shoreline and topographic signals are from T-5811, T-5713 and T-5813 of 1941. Supplementary hydrographic signals were spotted from shoreline detail or located by sextant fixes recorded in the sounding volumes.

2. Sounding Line Crossings

Depths at crosslines are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were satisfactorily drawn.

The bottom is relatively smooth. The channel is bordered by flats covered by $\frac{1}{2}$ to 2 ft. of water.

4. Adjoining Surveys

The junctions with H-6997 (1944) on the northeast and H-6998 (1944) on the southwest will be considered when those surveys are verified.

5. Comparison with Prior Surveys

H-202 (1848)	1:20,000
H-1048 (1870)	1:10,000

H-202 covers the area of the present survey west of long. 75° 56' and H-1048 covers the area east of that longitude.

The geographic positions of certain parts of the river on H-1048 are in error by as much as 350 m. When depths are considered relative to their positions from the shoreline there is good agreement with the present survey.

Depths on H-202 are also in good agreement with present depths.

The present survey adequately reveals the essential information shown on these prior surveys and supersedes them within the common area.

6. Comparison with Chart 1225 (Latest print date 3/9/46)

A. Hydrography

The charted hydrography originates principally with the surveys discussed in the foregoing paragraph. Supplementary critical depths are charted from the present survey before verification and review.

The charted depths are in satisfactory agreement with present depths.

B. Aids to Navigation

The survey positions of aids to navigation are in satisfactory agreement with the charted positions and adequately mark the features intended.

7. Condition of Survey

The field plotting was satisfactory except that descriptive notes were not inked on the smooth sheet in accordance with paragraph 781 (d) of the Hydrographic Manual.

The sounding volumes and Descriptive Report were complete and comprehensive.


8. Compliance with Instructions for the Project

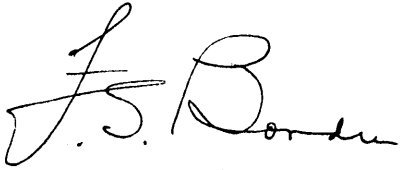
The survey satisfactorily complies with the instructions.


9. Additional Field Work Recommended

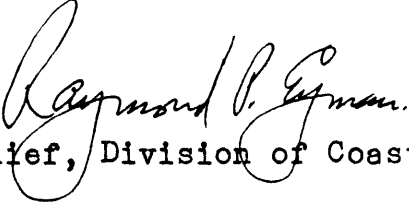
This is a basic survey and no additional work is recommended.

Examined and approved:


Chief, Nautical Chart Branch


Chief, Chart Division


Chief, Section of Hydrography


Chief, Division of Coastal Surveys

T-8250

T-8251

T-8259

T-8260

T-5811