

7887

Diag. Chart. No. 77-3

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. CO-2150 Office No. H-7887

LOCALITY

State MARYLAND

General locality TANGIER SOUND

Locality UPPER NANTICOKE RIVER

1945

CHIEF OF PARTY

John Bowie, Jr.,

LIBRARY & ARCHIVES

FEB 6 1952

DATE

7887

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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-7887

Field No. C0-2150

State MARYLAND

General locality Tangier Sound
~~CHESAPEAKE BAY~~

Locality UPPER NANTICOKE RIVER

Scale 1:20,000 Date of survey October & November 1950

Instructions dated 28 Feb. 1949 & 24 Aug. 1950

Vessel SHIP COWIE

Chief of party JOHN BOWIE, JR.

Surveyed by JOHN BOWIE, JR., H.D. REED, E.A. TAYLOR & J.A. ROULIER

Soundings taken by ~~GRAPHIC RECORDER~~ GRAPHIC RECORDER, hand lead, ~~WIRE~~ POLE

Fathograms scaled by SHIP'S PERSONNEL

Fathograms checked by SHIP'S PERSONNEL

Protracted by A. KAUPA

Soundings penciled by A. KAUPA

Soundings in ~~FATHOMS~~ FATHOMS feet at MLW ~~MLLW~~ MLLW and are true depths.

REMARKS: This survey was smooth plotted in the Hydrographic Section of the Norfolk Processing Office.

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DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY H-7887 FIELD NO. CO-2150

PROJECT CS-287

NANTICOKE RIVER, MARYLAND

SCALE 1:20,000

SHIP COWIE

John Bowie, Jr., Comdg.

A. PROJECT:

Project CS-287 (1949); Original Instructions dated 28 February 1949.
Supplemental Instructions dated 24 Aug. 1950.

B. SURVEY LIMITS AND DATES:

The area covered by this survey is the portion of the Nanticoke River flowing between the highway bridge at Vienna, Md. (Lat. $38^{\circ} - 29.8^{\circ}N$, Long $75^{\circ} - 49.3^{\circ}W$) and a position $2\frac{1}{2}$ miles above the highway bridge at Sharptown, Md. (Lat. $38^{\circ} - 33.8^{\circ}N$, Long $75^{\circ} - 41.2^{\circ}W$). Junction is made with H-7886 (1950) to the southward, and by a Corps of Engineer hydrographic survey Bp. 40778 (1942) to the northward. Field work was accomplished during the period 26 October - 3 November 1950 inclusive.

C. VESSELS AND EQUIPMENT:

30' launch #102 and 25' skiff #737 were used. The launch was based at Vienna, Maryland for the period 26 - 27 October 1950 inclusive, and at Sharptown, Md. for the period 1 - 2 November 1950; while the skiff #737 was based at Vienna throughout this survey.

Launch #102 used 808 type portable fathometer No. 63, and was used in general where depths exceeded six feet. Skiff #737, powered by two outboard motors and utilizing pole or leadline for sounding, was used in shoal areas where depths were not sufficient for launch operation.

D. TIDE AND CURRENT STATIONS:

Tide reducers were taken from the Vienna, Md. tide gage, located at Lat. $38^{\circ} - 28.3^{\circ}$ N, Long. $75^{\circ} - 49.5^{\circ}$ W., and the Sharptown, Md. tide gage located at Lat. $38^{\circ} - 32.5^{\circ}$ N, Long. $75^{\circ} - 43.4^{\circ}$ W. The areas controlled by each tide station are divided at Lat. $38^{\circ} - 31.5^{\circ}$ N, opposite the hydrographic signal SET.

No current stations were observed within the area of the survey.

E. SMOOTH SHEET: (T-5625, T-8106 & T-8245 of 1942 were the source of the shoreline)
This information to be supplied by the Processing Office.

F. CONTROL STATIONS:

The following triangulation Stations were recovered and used:

East: Vienna, Western Powerline Mast, center of Top, 1934.

West: Vienna, Eastern Power Line Mast, Center of Top, 1934.

Tank: Vienna, Black Water Tank, Knob on top, 1934

Topographic Control Stations are from air photo shoreline survey, T-5625. Hydrographic signals were built and then identified on nine-lens photographs. The identified hydrographic stations were transferred from the ¹⁹⁴² photographs to the 1:20,000 boat sheet (No. 8-8659, 8-12732, 8-12733, 8-12779) in general accordance with Photogrammetry Instruction No. 22.

G. SHORELINE AND TOPOGRAPHY:

Shoreline on the boatsheet was compared with the air photographs compilations covering this area (#8659, 12733, 12732, 12779), and is generally satisfactory.

Shoreline on boat sheet ^{& smooth sheet} was from air photo shoreline surveys T-5625, T-8106 and T-8245. General field inspection was made while identifying photo hydrographic stations and agreement was satisfactory.

H. SOUNDINGS:

Soundings were taken by 808 type portable fathometer, with the exception of a shore line run made with pole and hand lead.

Bar checks were taken at the beginning and end of each day. Fathometer corrections have been determined from the bar checks and entered in the sounding volumes by the field party.

I. CONTROL OF HYDROGRAPHY:

Three point fixes taken on shore signals in the usual manner were used to control the hydrographic survey.

J. ADEQUACY OF SURVEY:

This survey is complete and adequate for charting purpose. No holidays exist. Depth curves can be adequately drawn.

K. CROSSLINES:

As instructed, survey lines were run approximately parallel to the axis of the channel. Crosslines were not made except on bends due to the narrowness of the channel.

L-M. COMPARISON WITH PRIOR SURVEYS: CHARTS: *No chart of This area*

see Review,
par. 546

Prior surveys do not exist, hence no comparisons were made.

N. DANGERS AND SHOALS:

No evidence of dangers or shoals were found in the channel. Foul areas ^{are} close to shore, and have been noted on boat sheet ^{and transferred to smooth sheet.} Water plants grow along entire shoreline covered by this survey making it impossible to extend hydrography closer to high water line than shown on boat sheet.

O. COAST PILOT NOTES:

This subject is covered in a separate report by the Commanding Officer, Ship COWIE.

P. AIDS TO NAVIGATION:

No fixed or floating aids to navigation were observed on this portion of the Nanticoke River.

Q. LAND MARKS FOR CHARTS:

No new landmarks for charts are recommended for the area covered by this survey.

R. GEOGRAPHIC NAMES: ¹⁵⁴

The geographic names for this area shown on boat sheet and Corps of Engineers, Mardela Springs, Quadrangle are adequate, and no additional names are recommended.

U-Y. MISCELLANEOUS:

Due to the small scale of the boat sheet, and the necessity for slow operating speeds, at times soundings were plotted at various intervals of time. However, all intermediate soundings were entered in the sounding volumes.

Z. TABULATION OF APPLICABLE DATA:

Coast Pilot report forwarded to Washington Office 15 Nov. 1950.

*Approved and forwarded.
See Treason Report
John Bonni, Jr.
Comdr., USN
Comdg. Ship COWIE*

Eugene A. Taylor
Eugene A. Taylor,
Ensign, USC&GS.

STATISTICS

FOR HYDROGRAPHIC SURVEY H-7887 FIELD NO. CO-2150

SHIP COWIE - PROJECT CS-287

Launch 102

DATE 1950	VOL. No.	DAY	HL&P.	POS.	STAT. MI.	BAR CK.
10/26	I	a	-	105	23.3	2
10/27	I	b	-	25	2.3	2
11/1	I	c	-	77	13.1	2
11/2	II	d	-	140	20.4	2
TOTALS:				347	59.1	8

Skiff #737

11/3	III	e	783	106	17.5	-
GRAND TOTALS:			783	453	76.6	8

TOTAL AREA: .42 Sq. Stat. Miles.

TIDE NOTES

HYDROGRAPHIC SURVEY H-7887 FIELD NO. CO-2150

Two portable tide gages were used in determining the sounding reducers for this survey. Heights of MLW were determined by the Washington Office. No time or height corrections were applied to the observed tides in obtaining tide reducers for this survey. Hourly heights were scaled from the marigrams by personnel of Ship COWIE. The areas controlled by each tide station are divided at lat. $38^{\circ}-31.5'N$.

Vienna Gage;

Tide gage No. *H-195*

Lat. $38^{\circ}-28.3'N$.

Long. $75^{\circ}-49.5'W$.

Zero of staff above MLW - 2.8 feet.

Sharptown Gage:

Tide gage No. *189*

Lat. $38^{\circ}-32.5'N$.

Long. $75^{\circ}-43.4'W$.

Zero of staff above MLW - 1.9 feet.

FATHOMETER CORRECTIONS

Hydrographic Survey H-7887 Field No. CO-2150
Project CS-287

A-day (Fathometer 63, Mod.808)

Depths	Time	Corrections
0.0-7.0	0955-1045	0.6
	1046-1329	0.4
	1330-1510	0.2
	1511-end	0.0
7.1-over	entire day	0.0

B-day (Fathometer __, Mod.808)

Depths	Time	Corrections
All depths	entire day	0.0

C-Day (Fathometer __, Mod.808)

Depths	Time	Corrections
0.0-7.0	1315-1435	0.0
	1436-end	0.2
7.1-over	entire day	0.0

D-day (Fathometer 63, Mod.808)

Depths	Time	Corrections
0.0-7.0	0928-1209	0.2
	1210-end	0.0
7.1-23.0	entire day	0.0
23.1-28.0	" "	-0.2
28.1-over	" "	-0.4

H-7887
 CONTROL STATIONS----- Sheet CO-2150
 Project CS-287

TRIANGULATION:

WEST, Vienna Western Powerline Mast, Center of Top. 1934-50
 EAST, Vienna Eastern Powerline Mast, Center of top. 1934
 *TANK, Vienna, Black Water Tank, Knob on top. 1934-50
 *Note: Tank is now painted Silver.

AIR PHOTO TOPO CONTROL:

DOCK, Corner of dock or bulkhead.----- T-5625
 END, East end of pier or point.----- T-5625
 GAB, West gable of house.----- T-5625
 HEAD, N.W. Corner of bulkhead or fill.----- T-5625
 WEAR, S.W. Gable of building.(Section nearest river)---- T-5625
 ONE, N.W. Gable of building.(Bldg. is N.E. one of three) T-5625
 PUT, N.W. Gable of building.----- T-5625
 RAM, N.W. Gable, Westerly of 2 buildings.----- T-5625
 TAP, S.W. Gable of building.----- T-5625
 TOP, Top and center of Bridge housing.----- T-5625

PHOTO HYDRO CONTROL PICKED DIRECT FROM PHOTOGRAPHS:

ACE, Edge of marsh at brush line.----- Photo-8659
 ART, Point of marsh.----- Photo-12732
 Ask, Edge of marsh.----- Photo-12733
 BAG, Point of marsh.----- Photo- 8659
 BIB, Point of marsh.----- Photo-12732
 BIG, Edge of marsh. -----Photo-12733
 BUT, E. Gable of large white house.-----Photo-12779
 CAN, Edge of marsh. -----Photo-8659
 CON, Vienna bridge control house.----- Photo-12779
 CUE, Edge of Marsh. ----- Photo-12733
 DIF, Point of marsh. ----- Photo-8659
 DOC, Duck blind, point of marsh.----- Photo-12732
 DOG, Point of marsh. ----- Photo-12733
 EAT, Edge of marsh. ----- Photo-8659
 FAR, Point of marsh. -----Photo- 8659
 FIX, Edge of marsh. ----- Photo-12733
 GAG, Point of marsh.----- Photo-12779
 GAL, S.E. Gable house.----- Photo-12732
 GAS, Edge of trees at point.----- Photo-12733
 GEM, Point of marsh.----- Photo-8659
 HAT, Edge of marsh.----- Photo- 8659
 HEM, N.E. Gable of large house.----- Photo-12779
 HIS, S. Gable of house.----- Photo-12732
 HUB, Point of marsh.----- Photo-12733
 HUM, Point of marsh. ----- Photo-12732
 IDA, Edge of Marsh. ----- Photo-8659
 JUG, Edge of marsh. ----- Photo-8659
 KEY, Point of marsh. ----- Photo-8659
 LAD, Point of marsh. ----- Photo-8659
 LEG, W. Gable of house.----- Photo-12733
 LIP, Edge of marsh. ----- Photo-12779
 MAR, Point of marsh. ----- Photo-12733
 MID, EDGE of marsh. ----- Photo-8659
 ODD, Point of marsh. ----- Photo-12779
 OFF, N.W. Gable, Boat Shed. ----- Photo-12732

H-7887
CONTROL STATIONS ~~-----~~ SHEET CO-2150 (CONTINUED)
Project CS-287

PHOTO HYDRO CONTROL PICKED DIRECT FROM PHOTOGRAPHS: (CONTINUED)

PFP, Point of marsh. -----	Photo-12779
PIN, Point of marsh. -----	Photo-12779
PRO, Duck Blind edge of marsh. -----	Photo-12732
SET, Point of marsh. -----	Photo-12733
SUB, East Gable of house. -----	Photo-12732
TAN, Edge of marsh. -----	Photo-12732
TRY, Point of marsh. -----	Photo 8659
USE, Outer end of wreck. -----	Photo-12733
VIM, South gable of house. -----	Photo-12732
WED, Point of marsh. -----	Photo-12733
WHY, West gable of boat house. -----	Photo-12732
WIN, Point of marsh. -----	Photo-12779
WON, Point of marsh. -----	Photo-12733
YET, Edge of marsh. -----	Photo-12733
ZIG, Point of marsh. -----	Photo-12779

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-7887 (Field No. Co-2150)

This survey was smooth plotted in the Hydrographic Section of the
Norfolk Processing Office.

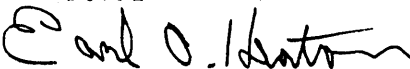
(see paragraph "E" of this report for source of shoreline)

Respectfully submitted,


Hugh L. Proffitt
Cartographer.

Norfolk, Va.
28 January 1952

Approved & Forwarded:


Earl O. Heaton
Supervisor, SE Dist.

GEOGRAPHIC NAMES

Survey No. H-7887

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
<u>Maryland</u>			(for title)							B.G.N.	1
<u>Chesapeake Bay</u>			" "								2
<u>Nanticoke River</u>			" "								3
											4
<u>Vienna</u>			(tide gage location)								5
<u>Vienna Bridge</u>											6
<u>Riverton</u>											7
<u>Marshyhope Creek</u>										B.G.N.	8
<u>Sharptown</u>			(tide gage location)								9
<u>Sharptown Bridge</u>											10
<u>Delaware</u>										B.G.N.	11
<u>Laurel River</u>											12
										B.G.N.	13
											14
											15
											16
											17
											18
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											24
											25
											26
											27

Names underlined in red are approved.
2-12-52
L. Heck

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7887.....

Records accompanying survey:

Boat sheets ..1...; sounding vols. ...³...; wire drag vols.;
 bomb vols.; graphic recorder rolls .3.F.V.;
 special reports, etc. 1 Descriptive Report; 1 Smooth Sheet; 4 Air-photographs.

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

Number of positions on sheet	.....	453
Number of positions checked	.....	80
Number of positions revised	.....	3+1 = 4
Number of soundings revised (refers to depth only)	.....	0
Number of soundings erroneously spaced	.....	3
Number of signals erroneously plotted or transferred	.....	0
Topographic details	Time	..... 3 Hrs.
Junctions	Time	..... 1 Hr.
Verification of soundings from graphic record	Time	..... 4 Hr.

Verification by *J. E. Gearhart*..... Total time *80 Hrs.* Date *9-3-52*

Reviewed by *A. J. Hoffman*..... Time *24 hrs.* Date *10/15/52*

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7887

FIELD NO. CO-2150

Maryland, Tangier Sound, Upper Nanticoke River

Project No. CS-287

Surveyed in October - November 1950

Scale 1:20,000

Soundings:

808 Fathometer
Handlead
Sounding Pole

Control:

Sextant fixes on shore signals

Chief of Party - J. Bowie, Jr.
Surveyed by - J. Bowie, Jr., H. D. Reed, E. A. Taylor
and J. A. Roulier
Protracted by - A. Kaupa
Soundings plotted by - A. Kaupa
Verified and inked by - J. E. Gearhart
Reviewed by - A. J. Hoffman, 15 October 1952
Inspected by - R. H. Carstens

1. Shoreline and Signals

The source of the shoreline and signals is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated.

The river bottom is relatively smooth except for channel deeps at the bends of the river.

4. Junctions with Adjoining Surveys

The junction with H-7886 (1950) on the south will be considered in the review of that survey. There are no adjoining surveys on the north by this Bureau. However, present survey depths on the north are in adequate agreement with depths by the Corps of Engineers (Bp. 40778 of 1944).

5. Comparison with Prior Surveys

H-673 (1858) 1:20,000

The prior survey covers a very small portion of the southern section of the present survey. A shift in the position of the natural channel is revealed in lat. $38^{\circ} 29.36'$, long. $75^{\circ} 48.70'$ where prior depths of 25-ft. fall in present depths of 16-17 ft.

The present survey is adequate to supersede the prior survey in the common area.

6. Comparison with Chart 77 (Print date 7/28/52)
Chart 1224 (Print date 8/4/52)

a. Hydrography

There is no charted hydrography in the area covered by the present survey. However, a note on chart 1224 gives a controlling depth of 9 ft. to Seaford. Present depths are in harmony with this controlling depth.

b. Topography

The shoreline of the area covered by the present survey is delineated on Chart 77 and is in adequate agreement with the present survey delineation, except for the omission of the swing bridge across the river, at Sharptown.

c. Aids to Navigation

There are no aids to navigation in the area of the present survey. No new features dangerous to navigation were revealed by the survey.

7. Condition of Survey

- a. The sounding records and Descriptive Report are complete and comprehensive.
- b. The smooth plotting was adequate.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

This is a very good basic survey and no additional field work is recommended.

Examined and approved:

H. R. Edmonston

H. R. Edmonston
Chief, Nautical Chart Branch

H. Arnold Karo

H. Arnold Karo
Chief, Division of Charts

L. S. Hubbard

L. S. Hubbard
Chief, Section of Hydrography

Earl O. Heaton

Earl O. Heaton
Chief, Division of Coastal Surveys

BHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~DIVISION OF CHARTS AND HYDROGRAPHY~~

12 February 1952

Division of Charts: R. H. Carstens

Plane of reference approved in 3
volumes of sounding records for

HYDROGRAPHIC SHEET 7887

Locality Nanticoke River, Chesapeake Bay, Maryland

Chief of Party: J. Bowie, Jr. in 1950
Plane of reference is mean low water, reading
1.9 ft. on tide staff at Sharptown
5.1 ft. below B. M. 1 (1950)

2.8 ft. on tide staff at Vienna
7.1 ft. below B. M. 1 (1950)

Height of mean high water above plane of reference is as follows:

Sharptown = 2.5 feet
Vienna = 2.3 feet

Condition of records satisfactory except as noted below:

E. C. McKay
Section
Chief, ~~Division~~ of Tides and Currents.

