

7881

Diag. Cht. No. 77-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. CO-1350 Office No. H-7881

LOCALITY

State MARYLAND

General locality TANGIER SOUND

Locality ENTRANCES TO FISHING BAY AND

NANTICOKE RIVER

194/50

CHIEF OF PARTY

J. Bowie, Jr.

LIBRARY & ARCHIVES

DATE JANUARY 9, 1952.

B-1870-1 (1)

7881

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-7881

Field No. Co-1350

State MARYLAND

General locality ~~NORTH END OF TANGIER SOUND~~

Locality ENTRANCES TO FISHING BAY & NANTICOKE RIVER

Scale 1:10,000 Date of survey June to Aug., 1950

Instructions dated 28 February, 1949

Vessel COWIE

Chief of party JOHN BOWIE, JR.

Surveyed by JOHN BOWIE, JR. & H.D. REED

Soundings taken by ~~fathometer~~ graphic recorder, hand lead, ~~and~~ POLE

Fathograms scaled by PERSONNEL SHIP COWIE

Fathograms checked by PERSONNEL SHIP COWIE

Protracted by A.G. ATWILL

Soundings penciled by A.G. ATWILL

Soundings in ~~fathoms~~ feet at MLW ~~MLLW~~ and arc true depths

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

7.4.5.

C. VESSELS AND EQUIPMENT:

30' Launch # 102 and 25' skiff #737 were used, both vessels operating from the Ship COWIE. Launch #102 using 808 type fathometers #57-S & #63 was used in the area of deeper water and inshore to an average depth of 6 ft.. Skiff #737 powered by 2 outboard motors was used in the inshore and shoal water areas and in creeks and inlets too shoal for the launch. Sounding pole or lead line were used in sounding from this vessel. No fathometer was used.

D. TIDE AND CURRENT STATIONS:

Portable automatic tide gages were maintained at (1) Sharkfin Shoal Light House during the entire period of this survey and at (2) Roaring Point, Nanticoke River during the time operations were being carried on in that vicinity. (see tide note attached to this report).

Current Stations #4, Lat. $38^{\circ}12.5'$, Long. $75^{\circ}57.3'$ and #6, Lat. $38^{\circ}14.7'$, Long $75^{\circ}55.6'$ fall within the area of this survey and were observed during the progress of the work.

E. SMOOTH SHEET: Shoreline originates with T-8119, T-8120, T-8134 and T-8135 of 1942.

^{was}
Projection ~~will be~~ constructed and sheet plotted by the Norfolk Processing Office.

F. CONTROL STATIONS:

The following triangulation stations were recovered and used: Sharkfin Shoal L. H., 1898, Great Shoals L. H., 1901, Croch, 1910, Dame, 1932, Jack 1942. Topographic stations are from air photo surveys, T-8120, T-8135 & T-8134, of 1942.

PP "F" continued.

Hydrographic stations were located by intersection of sextant outs or by three point sextant fix and check angle. (See Vols I & II sounding records of this survey for list of signals and tabulation of outs and fixes.)

G. SHORELINE AND TOPOGRAPHY:

& smooth sheet 1942

The shoreline on the boat sheet¹ was transferred from the¹ air photo compilations covering this area (T-8119, T-8120, T-8134, T-8135) and is generally satisfactory. Erosion is apparent throughout the area but no differences were found during the course of the survey that will require adjustment of the shoreline when plotting the smooth sheet.

Sandbars have formed at the entrance to ~~a creek~~^{Rock Creek} near the southeast corner of the survey (see ^{smooth} ~~boat~~ sheet). It was not practicable to define the entire low water line by soundings due to the small range of tide and the attendant difficulty of getting the sounding vessel close to the beach without long periods spent dragging bottom or going aground. However it was possible to run a line of soundings of 1 ft. or less parallel to the beach except for some short stretches when deeper water extended in close to the high water line.

a minor shoreline correction at the mouth of Rock Creek was transferred to the smooth sheet

LWL was adequately delineated

H. SOUNDINGS:

Depths were measured with 808 type recording fathometer, hand-lead and pole. Bar checks were taken daily from the launch to the depth at which satisfactory returns could be obtained. Fathometer corrections have been determined from the bar checks and entered in the sounding records by the field party. Overlap between pole and fathometer soundings was satisfactory except in a few instances near the SE corner of the survey.

Pole sdgs. usually deeper by 1-2 ft

PP "H" continued.

where differences of ^{*}2 to 4 ft. were noted. This was probably due to grass on the fathogram and also to soft bottom causing a deeper pole or leadline sounding to be obtained than was actually the case. An effort has been made to correct for grass effect when scanning the fathograms and if any discrepancies are still apparent when plotting the smooth sheet, it is recommended that the fathometer soundings be accepted as correct.

* average difference was 1 ft. after this area was verified and inked.

I. CONTROL OF HYDROGRAPHY:

Sounding lines were controlled by three point fixes on shore objects except when sounding in creeks with the skiff where it was not possible to obtain fixes. In these cases positions were marked at identifiable points ^{on} the shoreline and noted in the sounding record. (see boat sheet). Three point fix control gave satisfactory results and no adjustment in horizontal positions was necessary.

J. ADEQUACY OF SURVEY:

This survey is considered complete and adequate to supersede prior surveys for charting. Junctions with adjoining surveys are satisfactory and no holidays or excessive differences exist. Depth curves can be adequately drawn.

K. CROSSLINES:

About 5% of crosslines were run. Satisfactory crossings were obtained.

L-M. COMPARISON WITH PRIOR SURVEYS; CHART.

Preliminary Review Items: (Chart 1224, 7/17/50)

(1) Controlling depths in dredged channels:

Lat. 38°-12.7' - Long. 75°-59.5' - Channel at E end of Hooper Straits.

Depth of 14 ft. shown on chart 1224. This channel is not well defined at present due to current action. Several 12 ft. spots were found between the marker buoys.

12 ft. controlling depth from present survey has been charted

See 11 ft

*φ 38-12.7
λ 75-59.22*

Lat. 38°-12.3' - Long. 75°-56.0' - Channel leading into Wicomico River.

Depth of 14 ft. shown on Chart 1224. No indication of a dredged channel was found during this survey. A least depth of 12 feet was found in the natural channel (marked by buoys) between Long. 75-57 and the eastern limits of this survey.

dredged channel symbol has been deleted from chart

//

(3) Ruins of pier: φ 38°15.70' λ 75°54.94'

This pier is now completely destroyed and should be removed from chart. (~~See boat sheet~~).

pier deleted from chart

(4) Stakes:

These stakes could not be identified in the field. There are numerous temporary stakes scattered throughout the area of this survey in the shoal areas close to the shoreline. These are constantly being moved or destroyed so that it is not practicable to attempt to locate them for charting. Recommend that these stakes be removed from the chart.

stakes deleted from Chart 1224, some stakes are still charted on Chart 567

The greater part of the area covered by this survey, ^{excluding the flats} shows evidence of filling in. This is especially noticeable in the main deep-water channels leading from Tangier Sound into Fishing Bay and Nanticoke River, where the hydrography showed depths up to as much as 10 ft. shoaler than those on Chart 1224.

see Review, paragraph 5

However this shoaling does not constitute a menace to navigation, as there is more than sufficient depth of water for any vessels navigating this area. In the areas outside the deepwater channels shoaling was apparent to a lesser degree and in some instances evidence of ~~scouring~~^{scouring} was found. In the area just South of the dredged channel into Hooper Strait, Review, par. 5 and in the west end of the channel into the Wicomico River general depths | Review, par. 6 found during this survey were up to 3 feet deeper than those shown on the chart and this condition showed to a lesser degree in the shoal areas in the south end of Fishing Bay and south of Clay Island.

N. DANGERS AND SHOALS:

Except as noted above no new dangers and shoals were found in the area covered by this survey.

O. COAST PILOT NOTES:

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

P. AIDS TO NAVIGATION:

Tedious Creek Light (Lat. $38^{\circ}14.74'$ Long. $76^{\circ}02.8^{\prime}$)^{65'} was located by hydrographic methods during the course of this survey and is reported on Form 567. Other fixed aids in this area have been previously located by triangulation or air photo methods and were not relocated by the field party. adequate agreement with charted position

A list of floating aids to navigation is included with this report.

Q. LANDMARKS FOR CHARTS:

~~No new landmarks for charts are recommended for the area covered by this survey.~~ Landmarks in this area are reported on Form 567.

R. GEOGRAPHIC NAMES:

Geographic names shown on Chart 1224 for this area are adequate and no additional names are recommended.

U-Y. MISCELLANEOUS:

The boat sheet for this survey was divided into two sections, one comprising most of the inshore areas that could be worked only with the skiff, and the other including the deeper water areas which could be covered with the launch. This division was made so that both boats could be used on the survey at the same time.

Because most of the area covered by this survey is relatively featureless and in order to save time, soundings plotted on the boat sheet are 30 seconds apart instead of 15 seconds. Intermediate soundings are plotted where needed to define underwater features. All intermediate soundings are recorded in the sounding volumes.

In featureless flat areas spacing of sounding lines are increased to 180 meters. This was done in accordance with Paragraph 9 of the instructions.

Z. TABULATION OF APPLICABLE DATA:

Coast Pilot Report - Forwarded To Washington Office 15 Nov. 1950.

List of Fixed Aids to Navigation on Form 567 - Forwarded to Washington Office.

*Approved and Forwarded
See Season's Report
John Bowie, Jr.
Comdr., USCG
Comdg. Ship COWIE*

Harry D. Reed, Jr.
Harry D. Reed, Jr.,
Lieut., USCGS.

STATISTICS

FOR HYDROGRAPHIC SURVEY H 7881 FIELD NO. CO-1350

SHIP COWIE

PROJECT CS-287

DATE 1950	DAY	VOL. No.	STAT. MI. Hydro.	POS.	HL & P	BAR CK.
			<u>Launch 102</u>			
6/27	a	I	21.2	97 ✓	-	1
6/28	b	I	15.3	68 ✓	-	2
6/29	c	I-II	28.9	136 ✓	-	2
7/17	d	II	23.0	105 ✓	-	2
7/18	e	II-III	37.6	174 ✓	-	2
7/19	f	III	47.7	194 ✓	-	3
7/20	g	IV	38.3	¹⁸⁴ 183 ✓	-	2
7/24	h	IV	13.8	62 ✓	-	2
7/28	j	V	15.3	⁷² 71 ✓	-	2
8/24	k	V-VI	48.2	206 ✓	-	3
8/25	l	VI	31.6	¹³⁹ 138 ✓	-	2
8/28	m	VI	25.4	117 ✓	-	2
8/30	n	VII	42.7	201 ✓	-	2
8/31	p	VII	<u>14.4</u>	<u>70</u> ✓	-	<u>2</u>
		TOTALS:	403.4 ✓	²⁴ 1717 1825		29 ✓

STATISTICS

FOR HYDROGRAPHIC SURVEY H 7881 FIELD NO. CO-1351

SHIP COWIE

PROJECT CS-287

DATE 1950	DAY LETTER	VOL. NO.	STAT. MI. HYDRO.	POS.	HL & P
<u>Skiff #737</u>					
7/18	a	VIII	19.1	124	842 856
7/19	b	VIII	14.1	99	606 619
7/25	c	VIII-IX	19.9	101	735 754
7/28	d	IX	5.0	36	202 192
8/25	e	IX	26.5	131	926 924
8/28	f	X	11.5	63	452 462
8/29	g	X	18.7	117 114	707 706
8/31	h	X	<u>2.5</u>	<u>20</u>	<u>97</u>
			<u>117.3</u> ✓	<u>688</u> 91	<u>4570</u> 4567
GRAND TOTALS:			520.7 ✓	2405 2415	4570 4567
				2516	

AREA - 24.4 Sq. Stat. Mi.

TIDE NOTE

HYDROGRAPHIC SURVEY H-7881 FIELD NO. CO-1350

Portable automatic tide gages at Sharkfin Shoal Light House (Lat. $38^{\circ}12.12'$ - Long $75^{\circ}59.23'$) and Roaring Point, Nanticoke River (Lat. $38^{\circ}15.73'$ - Long. $75^{\circ}55.16'$) were used for obtaining tide reducers for this survey. Height of MLW at the Sharkfin Shoal gage was 1.5 ft. above zero of tide staff; at the Roaring Point gage MLW was 0.9 ft. above zero of tide staff.

Tide Reducers were obtained from the Sharkfin Shoal gage from the beginning of the survey to 28 July when the hydrography had extended eastward to Long $75^{\circ}56.2'$. For the remainder of the survey reducers were obtained from the Roaring Point gage. ~~No time or height corrections were applied to the observed tides.~~ No time or height corrections were applied to the observed tides used in computing the reducers. Hourly heights were scaled from the marigrams by personnel of the Ship COWIE.

FLOATING AIDS TO NAVIGATION
SHEET CO-1350 (H-7881)

<u>NAME</u>	<u>LAT.</u>	<u>LONG.</u>	<u>DEPTH OF WATER (FT.)</u>	<u>POS. NO.</u>	<u>DATE.</u>
Sharkfin Shoal West Side Buoy 6	38°-12.3 ³ / _X	76°-00.9 ⁵ / _X	26	83e	7/18/50
Sharkfin Shoal Buoy	38°-12.6 ³ / _X	75°-58.8 ⁸⁹ / _X	14	1d	7/17/50
Clay Island Shoal Buoy-2	38°-13.71'	75°-59.48'	15	105d	7/17/50
Wicomico River Buoy-2	38°-12.67'	75°-54.6 ⁶⁸ / _X	1 ² / _X	7m	8/28/50
*Wicomico River Buoy-4	38°-12.82'	75°-53.92'	18	12m	8/28/50
Flats Buoy-2	38°-13.1 ⁶ / _X	75°-55.81'	15	102i	8/25/50
Oyster Rock Buoy-4	38°-14.1 ⁰ / _X	75°-55.6 ⁴ / _X	20	88i	8/25/50
Sharkfin Shoal North Side Lighted Bell Buoy-8	38°-12.7 ⁹ / _X	76°-00.2 ⁶ / _X	15	90e	7/18/50
Wicomico River Lighted Bell Buoy-1	38°-12.3 ² / _X	75°-55.9 ⁵ / _X	14	206k	8/24/50

* This is a lighted buoy, but not listed as such in Light List. (Listed correctly in 1951 List)

~~NONFLOATING AIDS OR LANDMARKS FOR CHARTS~~

TO BE CHARTED
~~TO BE DELETED~~

STRIKE OUT ONE

Norfolk, Virginia

12 January, 1951

I recommend that the following objects which have ~~(marked)~~ been inspected from seaward to determine their value as landmarks be charted on ~~(deleted from)~~ the charts indicated.

The positions given have been checked after listing by E.A. Taylor; H.D. Reed Jr.

Project CS-287

John Bowie, Jr. Chief of Party.

STATE <i>Maryland</i>			POSITION				DATUM	METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
CHARTING NAME	DESCRIPTION	SIGNAL NAME	LATITUDE		LONGITUDE								
			° ' "	D. M. METERS	° ' "	D. P. METERS							
✓ E. Cable No.	East Cable Large White House	CON	38-15	485	76-02	434	N.A. 1927	Hydro. C.O. 1250	June 1950	X			1224
Tower *	Observation Tower	TALL	38-17	985	75-54	541	1927	N.A. Hydro. CO-1650	Sept. 1950	X			1224
Silo *	Top of Brick Silo	SILLO	38-25	1240	75-50	1424	1927	N.A. Air Photo CO-1850	1942				
Tank *	Water Tank, Vienna, Md.	TANK	38-29	50	75-49	720	1927	N.A. Triang. CO-1850	1934				
Tower *	Western Transmission Tower Vienna, Md.	WEST	38-29	196	75-49	492	1927	N.A. Triang. CO-1850	1934				
Tower *	Eastern Transmission Tower Vienna, Md.	EAST	38-28	1848	75-49	198	1927	N.A. Triang. CO-1850	1934				
Tower	U.S. Navy, 45 Observation Tower (light on top)		38-11	1517	75-05	900	1927	N.A. Hydro. CO-1250	1950	X			1224
✓ Trees	Group of Tall Pine Trees Small House in Center.	TEA	38-14	1473	75-56	603	1927	N.A. Hydro. CO-1650	1950	X			1224
<p>landmark not shown on survey, see L. 71 (1951) in which Comdr. Bowie recommends the landmark</p>													
<p>* not within survey H-7831</p>													

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

FATHOMETER CORRECTIONS

Hydrographic Survey H-782¹, Field No. 1350
Project CS-287

A-day through L-day inclusive ----- no-corrections
 M-day (Fathometer No. , Med. 808) no indication in sdg. volumes or fathogram of fathometer no.

1216-1330 ----- no corrections
 1331-end of day :

Depths	Corrections
0.0-12.0	/0.6
12.1-14.0	/0.4
14.1-18.0	/0.2
18.1-over	/0.0

N-day (Fathometer No. 63, Med. 808)

Time	Corrections
Start-0818	0.0
0819-0942	/0.2
0943-1236	/0.4
1237-1400	/0.6
1401-1524	/0.8
1525-1606	/1.0

P-day (Fathometer No. 63, Med. 808)

Depths	Corrections
0.0-15.0	0.0 (entire day)
15.0-Over :	
Time	
Start-0856	0.0
0857-0852	/0.2
0853-0948	/0.4

LIST OF SIGNALS - H-7881

TRIANGULATION

CROCH, 1910-42 ✓
DAME, 1932-42 ✓
GREAT SHOALS L.H., 1901-42 ✓
JACK, 1942 ✓
ROAR, 1907-42 ✓
SHARKFIN SHOAL L.H., 1898 - 1942 ✓ (d)

MARKED TOPOGRAPHIC

<u>BOB</u> , 1942 ✓ (d)	T-8120 (1942)
<u>CLAY ISLAND SHOAL LIGHT</u> , 1942 ✓	T-8134 (1942)
<u>HEAD 2, R.M. NO. 2</u> , 1932-42 ✓	From triangulation description
<u>NANTI</u> , R.M. 2, 1932 ✓ (d)	T-8134 (1942)
<u>RED</u> , 1942 ✓ (d)	T-8134 (1942)
<u>STUMP</u> , 1932-42 ✓ (d)	T-8134 (1942)

TOPOGRAPHIC

Ring T-8120⁽¹⁹⁴²⁾ ✓ mislocated; replotted from T-8120 (1942)

HYDROGRAPHIC

Ace Vol. 1, P. 3 ✓
 Ban Vol. 1, P. 3, 27
 Bed Vol. 1, P. 3 ✓
 Bn. 1 Vol. 1, P. 3, 27
 Con H-7880 (1950)
 Eel Vol. 1, P. 3 ✓, Vol. 2, P. 44
 End Vol. 1, P. 2 ✓
 Fat Vol. 1, P. 3 ✓
 Fig H-7880 (1950)
 Fin Vol. 1, P. 27 ✓
 Fox Vol. 1, P. 3 ✓
 Gem H-7882 (1950)
 Get Vol. 1, P. 3, Vol. 2, P. 44, 46
 Gone Vol. 1, P. 2 ✓
 Gun Vol. 1, P. 3 ✓
 Hat H-7882 (1950)
 Hop Vol. 1, P. 27 ✓
 Ice Vol. 1, P. 27 ✓
 Jet H-7884 ✓ (1950)
 Kid Vol. 1, P. 27 ✓
 Lar Vol. 1, P. 3
 Lay Vol. 1, P. 27 ✓
 Litz Vol. 1, P. 2 ✓
 Per Vol. 1, P. 2 ✓
 Pie Vol. 1, P. 2 ✓
 Shop H-7880 (1950)
 Tea Vol. 1, P. 3 ✓
 Tim Vol. 1, P. 3 ✓

Bn 1 (Ted) (d)

↳ TEDIOUS CREEK LT, 1942

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-7881 (Field No. Co-1350)

SOUNDINGS

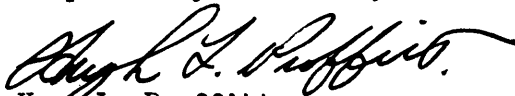
There is an average discrepancy of from one to two feet at junctions between fathometer and pole soundings. The pole soundings are the deeper.

Average discrepancy on verified smooth sheet is 1ft., and is not excessive for soft bottom.

A.J.H.

9/25/52

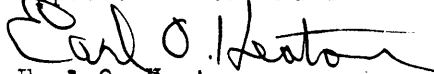
Respectfully submitted,



Hugh L. Proffitt
Cartographer.

Norfolk, Va.
5 Jan. 1952

Approved & Forwarded:



Earl O. Heaton
Supervisor, SE District.

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~DIVISION OF CHARTS AND TOPOGRAPHY~~

15 January 1952

Division of Charts: R. H. Carstens

Plane of reference approved in 10
volumes of sounding records for

HYDROGRAPHIC SHEET 7881

Locality Tangier Sound - Fishing Bay, Chesapeake Bay

Chief of Party: J. Bowie, Jr.

Plane of reference is mean low water, reading
1.5 ft. on tide staff at Sharkfin Shoal Lighthouse
17.9 ft. below B. M. 1 (1902)

0.9 ft. on tide staff at Roaring Point
5.1 ft. below B. M. 1 (1950)

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

Sharkfin Shoal Lighthouse = 2.2 feet
Roaring Point = 2.3 feet

Condition of records satisfactory except as noted below:

E. C. McKay
Section

Chief, ~~Division~~ of Tides and Currents.

GEOGRAPHIC NAMES

Survey No. H-7881

Name on Survey	Source of Name									
	A	B	C	D	E	F	G	H	K	
<u>Maryland</u>									BGN	1
<u>Chesapeake Bay</u>									"	2
<u>Tangier Sound</u>									"	3
<u>Hooper Strait</u>									"	4
<u>Bishops Head</u>									"	5
<u>Todd Cove</u>										6
<u>Tedious Creek</u>										7
<u>The Tidepond</u>										8
<u>Fishing Bay</u>										9
<u>Clay Island Creek</u>										10
<u>Clay Island</u>									BGN	11
<u>Sandy Island</u>									"	12
<u>Muddy Cove</u>										13
<u>Nanticoke River</u>										14
<u>Roaring Point</u>										15
										(location of tide gage)
<u>Jones Creek</u>										16
<u>Nanticoke Point</u>										17
<u>Wicomico River</u>										18
<u>Rock Creek</u>										19
										20
										21
										22
<u>Sharkfin Shoal</u>										23
<u>Light</u>										(location of tide gage)
										24
										Names underlined in red are approved
										1-14-52
										L. Heck
										26
										27

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7881...

Records accompanying survey:

Boat sheets .1(2 parts); sounding vols. .10...; wire drag vols.;
 bomb vols.; graphic recorder rolls 6. Env.;
 special reports, etc. 1. Descriptive Report; 1. Smooth Sheet;.....

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

Number of positions on sheet		2516
	
Number of positions checked		260
	
Number of positions revised		20
	
Number of soundings revised (refers to depth only)		32
	
Number of soundings erroneously spaced		85
	
Number of signals erroneously plotted or transferred		1
	
Topographic details	Time	6 hrs
	
Junctions	Time	16 hrs
	
Verification of soundings from graphic record	Time	12 1/2 hrs
	

Verification by *John J. Thompson*..... Total time 186 hrs. Date 17 Sept '52

Reviewed by..... A. J. Hoffman..... Time 34 hrs. Date 9/25/52

Stani - 11 hrs

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7881

FIELD NO. CO-1350

Maryland, Tangier Sound, Entrances to Fishing Bay and Nanticoke
River
Project No. CS-287

Surveyed - June - August 1950

Scale 1:10,000

Soundings:

808 Fathometer
Handlead
Sounding Pole

Control:

Sextant fixes on shore signals
Estimated distances from shore

Chief of Party - J. Bowie, Jr.
Surveyed by - J. Bowie, Jr. and H. D. Reed
Protracted by - A. G. Atwill
Soundings plotted by - A. G. Atwill
Verified and inked by - G. J. Thompson
Reviewed by - A. J. Hoffman, 26 September 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 adequate agreement.

Handlead and pole soundings are in many places 1 ft. deeper than fathometer soundings because of sounding in soft mud.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated. The 3, 24 and 36-ft. curves have been added to emphasize bottom relief.

The bottom over most of the area is smooth except for several channel deeps which are found 1-2 miles off the shores. Natural deep water channels extending through the area range in depth from 9 to 57 ft.

4. Junctions with Adjoining Surveys

Adequate junctions were effected with H-7884 (1950) on the northeast, H-7882 (1950) on the northwest, H-7879 (1950) on the south and with H-5228 (1932) on the east.

The junction with H-7880 (1950) on the southwest will be considered in the review of that survey.

5. Comparison with Prior Surveys

H-557 (1856) 1:40,000
H-1447a (1878) 1:40,000

H-673 (1858) 1:20,000
H-2614 (1901-02) 1:20,000

The survey of 1901-02 provides the most complete prior coverage of the area under consideration.

A comparison between depths of the prior surveys and the present survey reveals a deepening of 1-3 ft. on portions of the flats, as for example in lat. $38^{\circ} 13.53'$, long. $76^{\circ} 01.33'$ where prior depths of 5-ft. (charted) fall in present depths of 7-ft. and in lat. $38^{\circ} 12.67'$, long. $75^{\circ} 59.79'$ where prior depths of 9-ft. (charted) fall in present depths of 12-ft. Present depths in the natural channels leading into Fishing Bay and the Nanticoke River have decreased as much as 11 ft; as for example, in lat. $38^{\circ} 13.53'$, long. $75^{\circ} 59.43'$ present depths of 34-35 ft. fall in prior depths of 45-ft. (charted). Shoaling has occurred along the south side of the natural channel leading into the Wicomico River, and in lat. $38^{\circ} 12.20'$, long. $75^{\circ} 55.93'$ present depths of 12-ft. fall between prior charted depths of 14-16 ft.

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

6. Comparison with Chart 567 (Print date 8/18/52)
Chart 1224 (Print date 8/4/52)
Chart 3330 (Print date 6/23/52)a. Hydrography

The charted hydrography on 567 and 1224 originates principally with the previously discussed surveys, supplemented by Corps of Engineers surveys to 1941, and critical information from the present survey before verification and review.

The 12-ft. sounding charted in lat. $38^{\circ} 12.22'$, long. $75^{\circ} 56.33'$ from Corps of Engineers Bp. 36432 falls in present depths of 14-15 ft. and should be disregarded. This shoal resulted from spoil being deposited during the 1941 dredging of a 17 ft. channel in this area. Subsequent scouring and deposition has leveled the shoal and filled in the channel.

The single pile charted on 1224 in lat. $38^{\circ} 14.68'$, long. $75^{\circ} 55.94'$ is from advance information of the present survey contained in Chart Letter No. 71 (1951). The revised smooth sheet location of the pile is about 160 meters eastward and supersedes the charted position.

The present survey is adequate to supersede the charted information.

The charted hydrography on 3330 originates with the present survey before verification and review. Charted hydrography is in adequate agreement with the verified smooth sheet values.

b. Aids to Navigation

The charted positions of buoy FLW 1 in lat. $38^{\circ} 12.36'$, long. $75^{\circ} 55.95'$ and buoy N-2 in lat. $38^{\circ} 12.79'$, long. $75^{\circ} 53.98'$ are 70 meters north and 100 meters southwest, respectively, of the survey positions. Either position adequately serves the purpose intended.

All other charted aids to navigation in the common area are in adequate agreement with the present survey locations and adequately mark the features intended.

c. Dredged Channels

The charted controlling depth in the marked channel east of Bishops Head is from advance information of the present survey contained in Chart Letter No. 71 (1951), and is in adequate agreement with verified smooth sheet values.

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

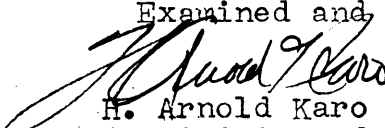
The survey adequately complies with the Project Instructions.

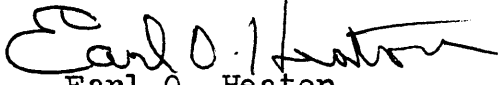
9. Additional Field Work Recommended

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


H. R. Edmonston
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Examined and approved:

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