

7882

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-1450 Office No. H-7882

LOCALITY

State MARYLAND

General locality TANGIER SOUND

Locality FISHING BAY (SOUTH END)

194/50

CHIEF OF PARTY

JOHN BOWIE, JR.

LIBRARY & ARCHIVES

DATE JAN 1 1 1952

7882

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-7882 ✓

Field No. Co-1450 ✓

State MARYLAND ✓

General locality TANGIER SOUND ✓

Locality FISHING BAY (SOUTH END) ✓

Scale 1:10,000 Date of survey July - August, 1950 ✓

Instructions dated 28 Feb. 1949 ✓

Vessel COWIE

Chief of party JOHN BOWIE, JR.

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

Soundings taken by ~~hydrographic~~ graphic recorder, hand lead, ~~and~~ POLE ✓

Fathograms scaled by PERSONNEL SHIP COWIE

Fathograms checked by PERSONNEL SHIP COWIE

Protracted by W.L. JONNS

Soundings penciled by W.L. JONNS

Soundings in ~~XXXXXX~~ feet at MLW ~~XXXXXX~~ 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-7882 FIELD NO. CO-1450

FISHING BAY, MARYLAND

PROJECT CS-287

SCALE 1:10,000

SHIP COWIE

John Bowie, Jr., Comdg.

A. PROJECT:

Project CS-287. Amended instructions dated 28 February 1949.

B. SURVEY LIMITS AND DATES:

This survey covers the South end of Fishing Bay from a junction with 1950 survey CO-1550 at Fishing Point in the north to Lat. $38^{\circ} - 15'$ on the south where it makes a junction with 1950 survey CO-1350. In addition to the bay proper this survey also covers the lower ends of several creeks which empty into the bay in this area. Field work was accomplished during the period 20 July - 15 August inclusive.

C. VESSELS ANDEQUIPMENT:

30' Launch #102 and 25' skiff #737 were used, both vessels operating from the Ship COWIE. Launch #102 equipped with 808 type fathometers #63 and #57S was used in the deeper water areas in the middle and inshore to an average depth of 6 feet. Skiff #737 powered by two outboard motors was used in the inshore shoal water areas and in the creeks. Sounding pole and lead line were used in sounding from the skiff.

D. TIDE AND CURRENT STATIONS:

A portable automatic tide gage was maintained at Fishing Point during the entire period of this survey (see tide note attached to this report).

Current Station #8 Lat. $38^{\circ}18.0'$ - Long. $76^{\circ}00.8'$ falls within the limits of this survey and was observed during the progress of the work.

E. SMOOTH SHEET:

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

F. CONTROL STATIONS:

The following triangulation^a stations were recovered and used: Croch, 1910, Elliot, 1910, and Toddville, M.E. Church Spire, 1910.

Topographic Stations are from air photo surveys T-8120, T-8119, T-8135. The following topo stations were relocated by the field party using hydrographic methods: Tedious Creek Light* (see also Sheet CO-H-7881 1350), Goose Creek Light, Roasting Ear Point Light, and Farm Creek Beacon #2.

*. Was not plotted on T-8135, although located by hydrographic methods in 1942. Present location of the three (3) other stations are from 15 to 115m. from the former positions.

Hydrographic Stations were located by intersection of sextant cuts, or by three point sextant fix and check angle.

(See Vols I & II, Launch 102, sounding records of this survey for list of signals and tabulation of cuts and fixes).

G. SHORELINE AND TOPOGRAPHY:

The shoreline on the boat sheet^{and smooth sheet} was transferred from the air photo compilations covering this area T-8119, T-8120^{T-8134} and T-8135 and is generally satisfactory. Except for a few minor instances, no differences were found that will require adjustment when plotting the smooth sheet. (See boat sheet). Most of these differences are due to erosion which was generally apparent throughout the area covered by this survey. It was not practicable to define the low water line by soundings due to the small range of tide and the difficulty of running close enough inshore with the sounding vessel without operating long periods of time aground or dragging bottom.

all indicated corrections were applied to the smooth sheet

H. SOUNDINGS:

Soundings were taken with the 808 type recording fathometer, hand lead and pole. Bar checks were taken daily from the launch. Fathometer corrections have been determined from the bar checks and entered in the sounding records by the field party. In a few instances discrepancies were found at areas of overlap between the pole and fathometer soundings. It is believed that these can be adjusted satisfactorily after applying the final tide reducers and fathometer corrections and when plotting the smooth^{sheet}. However in cases where such differences cannot be reconciled it is recommended that the pole soundings be accepted as correct.

all discrepancies were resolved

* Fathometer correction for this survey was found to be 0.0 throughout.

I. CONTROL OF HYDROGRAPHY:

Sounding lines were controlled by three point sextant fixes on shore objects except when sounding in creeks with the skiff when it was not possible to obtain fixes. In such cases, the 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 position 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°-16.3' - Long 76°-01.5') - Goose Creek Channel. Depth of 6 ft. shown on chart. A least depth of $6\frac{1}{2}$ ft. was found in the channel near Goose Creek Light during this survey. *6' project*

(Lat. 38°-18.5' - Long 76°-01.8') - Farm Creek Channel - Depth of 6 ft. shown on chart. A least depth of $6\frac{1}{2}$ ft. was found on the range during this survey. *6' project*

L-M. CONTINUED:

(Lat. 38°-17.3' - Long 76°-01.0') - McCreadys Creek Channel - Depth of 6 ft. shown on chart. This depth was verified on the range, during this survey.

6' project

Comparison with Chart 1224 showed that filling in has taken place in the deeper water area of this survey, especially in the south end, where depths up to ⁸ feet shoaler than those on the chart were found. The shoaling is less evident in the central and north sections of this survey and in most instances good agreement with the chart was found. In the shoaler inshore areas some evidence of scouring was found on the west side of the bay, but in general there was good agreement between this survey and the chart in these areas. The shoaling mentioned above does not constitute a menace to navigation as there is more than sufficient depth for vessels using this area. The traffic consists almost entirely of local crab and oyster boats.

see Review, paragraph 5

N. DANGERS AND SHOALS:

Except as mentioned above, no new dangers or 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:

The following fixed aids to navigation in this area have been re-located by hydrographic methods by the field party and reported on Form 567.

P. AIDS TO NAVIGATION: (CONT.)

- (1) - Tedious Creek Light (Located on Sheet ^{H-7881} CO-1350) lat. 38° 14.74' long. 76° 02.64'
- (2) - Goose Creek Light #1, Lat. 38° - 16.4^{36'} - Long. 76° - 01.7'
- (3) - Roasting Ear Point Light, Lat. 38° - 16.84' - Long. 76° - 00.93'
- (4) - Farm Creek Daybeacon #2, Lat. 38° - 18.53' Long - 76° - 02.8^{57'}

Review, par. 6b

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

Q. LANDMARKS FOR CHARTS:

No new landmarks for charts are recommended for this area.

R. GEOGRAPHIC NAMES:

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

see list of Geographic names in this report, for additional names in area

U-Y. MISCELLANEOUS:

A duplicate was made of the boat sheet in order that both sounding vessels could operate at the same time in the area. Hydrography for the shoal water areas and creeks covered by the skiff is shown on the original boat sheet. The hydrography for the deeper areas covered by the launch is shown on the duplicate sheet.

Soundings are plotted on the boat sheet every 30 seconds instead of every 15 seconds, except where intermediate soundings are needed to define underwater features. This was done due to the presence of large featureless flat areas and to save time in plotting. All intermediate soundings are recorded in the sounding volumes.

In featureless flat areas, spacing of sounding lines was increased to 180 meters, this was done in accordance with Paragraph 9 of the Instructions.

Z. TABULATION OF APPLICABLE DATE:

Coast Pilot Report - Forwarded to Washington Office 15 November 1950
~~1950~~ - Form 567 - Fixed Aids to Navigation - Forwarded to Washington
Office.

Harry D. Reed, Jr.
Harry D. Reed, Jr.,
Lieut., USC&GS.

*Approved and forwarded
Lee Seacour's Report
John Bowie, Jr.
Comdr., USN
Comdg. Ship COWIE*

STATISTICS

FOR HYDROGRAPHIC SURVEY H -7882 FIELD NO. CO-1450

SHIP COWIE - PROJECT CS-287

DATE	DAY	VOL. NO.	STAT. MI. HYDRO. <u>Launch #102</u>	POS.	HL&P	BAR CK.
1950						
7/25	a	I	46.6	201	-	3
7/26	b	I	13.8	61	-	2
7/27	c	II	<u>41.2</u>	<u>167</u>	-	<u>3</u>
			TOTALS: 101.6	429	-	8
			<u>Skiff #737</u>			
7/20	a	III	22.5	123	883	-
7/24	b	III	3.0	18	118	-
7/25	c	III	5.2	38	244	-
7/26	d	III	12.3	95	601	-
7/27	e	IV	27.3	164	1098	-
7/28	f	IV	10.4	66	445	-
8/8	g	V	12.7	69	402	-
8/15	h	V	<u>10.9</u>	<u>74</u>	<u>449</u>	-
			TOTALS: 104.3	647	4240	-
			GRAND TOTALS: 205.9	1076	4240	8

Area - 15.1 Sq. Stat. Mi.

TIDE NOTE

HYDROGRAPHIC SURVEY H-7882 FIELD NO. CO-1650

A portable automatic tide gage was maintained at Fishing Point
(Lat. $38^{\circ} - 18.5^{47'}$, Long. $76^{\circ} - 01.1^{02'}$) for the entire period of this survey. Height of MLW at this station was 0.2 ft. above zero of the tide staff. Tide reducers for this survey were obtained from the observed tides at this station. No time or height correction was applied. Hourly heights were scaled from the marigrams by personnel of the Ship COWIE.

FLOATING AIDS TO NAVIGATION

SHEET CO-1450 H-7882

NAME	LAT.	LONG.	DEPTH OF WATER (FT.)	POS. NO.	DATE.
McCready's Creek Buoy-2	38° - 17.62'	76° - 00.65'	5	Page 48, Vol. 2	9/12/50
Fishing Point Shoal Buoy-4	38° - 18.12'	76° - 01.46'	7	29a	7/25/50
Fishing Bay Lighted Buoy-5	38° - 18.6'	76° - 01.8 ⁷² '	14	46a	7/25/50

LIST OF SIGNALS
H-7882

TRIANGULATION STATIONS

CROCH CROCH, 1910-42
ELL ELLTOTT, 1910-42
SPIRE TODDVILLE M.E. CHURCH SPIRE, 1910-42

MARKED TOPOGRAPHIC STATIONS

BOB BOB, 1942 T-8120

TOPOGRAPHIC STATIONS

Bn. 3 Beacon 3, Goose Creek T-8119
Bn. 7 Beacon 7, Farm Creek T-8119
Bn. 8 Beacon 8, Farm Creek T-8119
Bn. 9 Beacon 9, Farm Creek T-8119
Creek Farm Creek Range, Rear Light T-8119
Front Farm Creek Range, Front Light T-8119
Ran Beacon 3, Farm Creek, T-8119
Rear McCready's Creek Range, Rear Light T-8119
Mac McCready's Creek Range, Front Light, T-8119

HYDROGRAPHIC STATIONS

Ace H-7881
Arm Vol. 2, Pgs. 46 & 47
Ban H-7881
Bed H-7881
Bn. 2 Vol. 2, Pgs. 46 & 47
Bus Vol. 2, Pgs. 46 & 47
Cut " " " " "
Dif " " " " "
Eat " " " " "
Ear " " " " "
Eel H-7881
Far Vol. 2, Pgs. 46 & 47&48
Few " " " " "
Fox H-7881
Get H-7881
Gem Vol. 2, Pgs. 46, 47 & 48
Goose " " " " "
Hat " " " " "
Lar H-7881
Litz H-7881
Ted (Bnl) H-7881

ADDENDUM
To Accompany

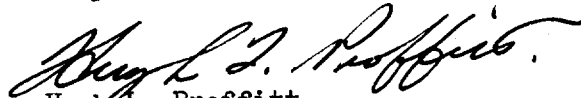
HYDROGRAPHIC SURVEY H-7882 (Field No. Co-1450)

SOUNDINGS

There is an average discrepancy of from 1 to 2 ft. at junctions of pole and fathometer soundings. The pole soundings are deeper.

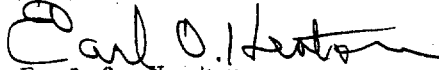
Discrepancies on verified smooth sheet are mainly 1ft., and are characteristic of the surveys in this area. Junction of Pole and Fathometer soundings is adequate. A.J.H.

Respectfully submitted,


Hugh L. Proffitt
Cartographer.

Norfolk, Va.
8 Jan. 1952

Approved & Forwarded:


Earl O. Heaton
Supervisor, SE Dist.

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~DIVISION OF HYDROGRAPHY AND TIDE SURVEY~~

18 January 1952

Division of Charts: R. H. Carstens:

Plane of reference approved in 5
volumes of sounding records for

HYDROGRAPHIC SHEET 7882

Locality: Tangier Sound, Chesapeake Bay

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

Height of mean high water above plane of reference is 2.5 feet.

Condition of records satisfactory except as noted below:

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

GEOGRAPHIC NAMES

Survey No. H-7882

Name on Survey	Source of Name											
	A	B	C	D	E	F	G	H	K			
<u>Maryland</u>										BGN	1	
<u>Tangier Sound</u>										"	2	
<u>Fishing Bay</u>											3	
<u>Tedious Creek</u>											4	
<u>Goose Creek</u>											5	
<u>Farm Creek</u>											6	
<u>Fishing Point</u>										(location to be gage)	BGN	7
<u>Roasting Ear Point</u>												8
<u>McCreadys Creek</u>												9
<u>McCreadys Cove</u>												10
<u>Duck Island Cove</u>												11
												12
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												27

Names underlined in red are approved
1-18-52
L. Heck

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7882...

Records accompanying survey:

Boat sheets ~~1~~(2 parts) sounding vols. 5.....; wire drag vols.; bomb vols.; graphic recorder rolls 1 Env; special reports, etc. 1 Smooth Sheet; 1 Descriptive Report;.....
.....

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

Number of positions on sheet		1032
Number of positions checked		42
Number of positions revised		5
Number of soundings revised (refers to depth only)		✓
Number of soundings erroneously spaced		✓
Number of signals erroneously plotted or transferred		✓
Topographic details	Time	2 hr
Junctions	Time	6 hr
Verification of soundings from graphic record	Time	6

Verification by *John T. Gallahan*..... Total time *142 hr.* Date *6/2/52*...

Reviewed by..... *A. J. Hoffman*..... Time *48 hrs.* Date *9/5/52*...

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7882

FIELD NO. CO-1450

Maryland, Tangier Sound, Fishing Bay (South End)

Project No. CS-287

Surveyed in July - 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 - W. L. Jonns
Soundings plotted by - W. L. Jonns
Verified and inked by - J. T. Gallahan
Reviewed by - A. J. Hoffman, 4 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 very good agreement.

3. Depth Curves and Bottom Configuration

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

The bottom over most of the area is smooth. A natural channel extending northwest traverses the area and ranges in depth from 10 to 33 ft.

4. Junctions with Contemporary Surveys

The present survey junctions adequately with H-7883 (1950) on the north. The junction with H-7881 (1950) on the south will be considered in the review of that survey.

5. Comparison with Prior SurveysH-673 (1858) 1:20,000H-1447a (1878) 1:40,000H-2614 (1901-02) 1:20,000

A comparison between these prior surveys and the present survey reveals a deepening of 1 to 2 ft. on some of the flats, as for example in lat. $38^{\circ} 17.17'$, long. $76^{\circ} 00.40'$ where prior depths of 3-ft. (charted) fall in present depths of 5-ft. Shoaling has occurred in lat. $38^{\circ} 15.36'$, long. $75^{\circ} 59.67'$ where prior depths of 19-ft. (charted) fall in present depths of 11-ft. The natural channel has decreased 3-5 ft. in depth.

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

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

Charted hydrography originates entirely with the previously discussed surveys which need no further consideration.

The present survey supersedes the charted information.

b. Aids to Navigation

The nun buoy located in lat. $38^{\circ} 17.62'$, long. $76^{\circ} 00.66'$ on the present survey is charted about 300 meters southwest of the survey position. The charted position more adequately serves the purpose intended.

All other aids to navigation located on the present survey are in substantial agreement with the charted aids and adequately mark the features intended.

c. Dredged Channels

Charted controlling depths in the marked channels are from advance information of the present survey contained in Chart Letter 71 (1951), and differ by a maximum of 1 ft. with smooth sheet values.

7. Condition of Survey

a. The sounding records and Descriptive Report are complete and comprehensive.


b. The smooth plotting was very well done.

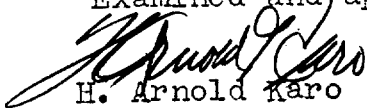
8. Compliance with Project Instructions


The survey adequately complies with the Project Instructions.

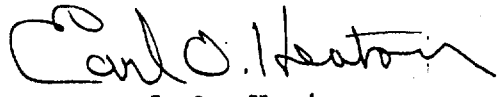
9. Additional Field Work Recommended

This is an excellent basic survey and no additional field work is recommended.


H. R. Edmonston
Chief, Nautical Chart Branch

Examined and approved:

H. Arnold Kero
Chief, Division of Charts


L. S. Hubbard
Chief, Section of Hydrography


Earl O. Heaton
Chief, Division of Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. H-7882

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
3/18/53	1224 Reconstr.	<i>JHE</i>	Before After Verification and Review
11/5/54	N.C. # 554	John M. McAlinden	Before After Verification and Review
2/27/64	77	D. Svendsen	Before After Verification and Review
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M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.