

7780

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-1449 Office No. H-7780

LOCALITY

State Maryland
General locality Chesapeake Bay
Locality Manokin River

1949

CHIEF OF PARTY

E.B.Latham

LIBRARY & ARCHIVES

DATE 14 JUNE 1950

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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-7780

Field No. Co-1449

State MARYLAND

General locality Chesapeake Bay
~~MANOKIN RIVER~~

Locality Manokin River
~~BROAD CREEK TO UPPER REACHES OF THE MANOKIN RIVER~~

Scale 1:10,000 Date of survey 11 AUGUST TO 22 AUGUST 1949

Instructions dated 28 FEB. & 29 MARCH 1949

Vessel COWLE

Chief of party ECTOR B. LATHAM

Surveyed by " " "

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

Protracted by STANLEY M. TARKENTON

Soundings penciled by " " "

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

REMARKS: _____

NOTES FOR DESCRIPTIVE REPORT

SHEET CO - 1449 1/10,000 MANOKIN RIVER
(UPPER PART)

SURVEYED BY SHIP COWIE 1949

A AUTHORITY:

Project CS 287, Amended Instructions dated 28 February, 1949, Amended 29 March, 1949.

B LIMITS AND DATES:

Due to limitations imposed by paper size the area of the sheet is disconnected. Sheet comprises the Manokin River above (East of) Lon. 75-50.6 and Broad Creek (North side) to the head of navigation in both forks of the river.

Junction is made to concurrent survey, Sheet CO-1349 - 1/10,000.
(H-7779, 1949)

C VESSEL AND EQUIPMENT:

Launch No. 102 and Ark - COWIE not used. Please see Notes for Descriptive Report, Sheet CO-1149 (H-Sheet not in)

Ark operated part time with 1 motor, speed 3.5 knots and part time with 2 motors, speed 5 knots.

D TIDE AND CURRENT STATIONS:

An auto portable gage was maintained at Teague Creek, Manokin River, as specified in INSTRUCTIONS. It is estimated that the lag at the site of the gage due to restricted entrance to Teague Creek is such that the observed tides should be applied to this sheet as far East as Lon. 75-46 in the South Fork and 75-45.5 in the North Fork, without correction in time or range.

Teague Creek not on this sheet

In the upper reaches of the forks, Teague Creek plus 20 minutes has been used in the reduction of soundings. It is believed that, because of the unimportance of these waterways, further refinement is not warranted. However, should refinement be contemplated, it is suggested that the tide and current experts be consulted.

E. SMOOTH SHEET

(By Norfolk Processing Office)

The projection was made by machine at the Washington Office.

All topographic signals were transferred in the conventional manner from graphic control sheet T-7127 (Co-49-G)*, scale 1:20,000. The shoreline was transferred from air-photo compilations, ^{T-8132 (1942), (1942) (1942)} T-8133 and T-8151. This was supplemented by shoreline transferred from T-7127 at signals ERR, HED, RUS, SEM, TOP and WAT and shown on the smooth sheet in red. Shoreline changes shown on the boat sheet in the vicinity of signals REE and OAK were shown on the smooth sheet in a dashed pencil line.

Shoreline changes shown on Smooth Sheet in dashed red lines from Boat Sheet.

**Graphic Control survey Co-49-G applied to present survey and then destroyed.*

No Current station was observed within the limits of this sheet.

E SMOOTH SHEET:

Report after plotting. *{ No report of discrepancies by
Prbc. Off.*

(See also paragraph "G")

F CONTROL STATIONS:

Traingulation Stations FITZ (M S F C) LOCUST (M S F C) lie on the sheet and are used directly as hydrographic signals, and to control the graphic control sheet. Station Saint Pierre lies on the sheet. It's position was recovered within one meter and the point is used to control the graphic control work. Station PEN, PENDLETON'S HOUSE, CHIMNEY lies within the limits of the sheet and is used to control the graphic control. Station FAIRMONT CHURCH SPIRE lies on the graphic control sheet and is used for control thereon. It does not lie on the Hydrographic Sheet. Station WAB was found washed out.

Hydrographic signals by graphic control methods on Sheet CO-49-G - scale ^(T-7127) 1/20,000. Graphic triangulation methods were used, sufficient triangulation control is available and indications are that all signals are located with plotting accuracy, No traverses were run.

One hydrographic signal (Fen) has been plotted on the graphic control sheet. It should be transferred from the G.C. sheet.

G SHORE LINE AND TOPOGRAPHY:

Shore line as taken from air photo compilations ¹⁵ are generally satisfactory in most of the area. Most serious departures are in the vicinity of Signals Wat and Len: ^{Tap} and Las, and Oke, Pin, Mid and ^{TIL} ~~Tie~~. Shore line for adjusting the air photo compilations is delineated on the g.c. sheet as Signals Wat, Hed, ^{Top} ~~Tap~~ and See. Signals so noted in List of Signals are on the shore line and shore line should be adjusted thereto.

*Shoreline changes in red on smooth sheet from
Graphic Control Survey CO-49-G and from boat sheet*

Fixes as follows should be plotted before transferring shore line, and shore-line adjusted to them: 19 through 22 c, 24 through 26 c and 189 - 191 c.

H SOUNDINGS:

Depths have been measured by Submarine Signal Co. Type 808 Portable depth recorders, hand lead and pole. Bar checks have been taken in accordance with INSTRUCTIONS and the Hydrographic Manual whenever weather conditions were such that good results could be obtained. Echo corrections have been determined at zero for the range of depths sounded through the period of the survey.

Pole soundings were taken in extensive shoal areas where a continuous profile was of no value and where the presence of the ^{factor} fish would have seriously retarded progress.

I CONTROL OF HYDROGRAPHY:

Standard methods of control by three point fixes on shore objects were used throughout the main body of the river and in all areas of any commercial importance. Boat sheet positions are used in the upper reaches of the creeks and in unimportant tributaries.

Boat sheet positions as used on this sheet are considered to be satisfactory with respect to the shore line as delineated on the air photo compilations. Further refinements in B.S.P. areas are not considered justified.

J ADEQUACY OF SURVEY:

Survey is complete and adequate to supersede all previous surveys for charting purposes. Hydrography has been carried to "0" soundings in all creeks and tributaries and/or to the limit of navigation.

There is uncontestible evidence of filling in over the entire area surveyed. Information furnished by inhabitants is that this filling has been gradually taking place over a long period of time. This shoaling is doubtless due to deforestation and the fact that there is very little traffic by boats of any considerable draft.

K CROSSLINES:

Cross lines and overlap are in excess of project INSTRUCTIONS, due to different systems of lines, junctions Ark to Launch, etc. Crossings appear satisfactory from inspection of the boat sheets. Further comment after smooth plotting.

L-M COMPARISON WITH PREVIOUS SURVEYS, CHART:

Preliminary Review Items: None on sheet. ✓

Entire area has shoaled due to deforestation and disuse, see also paragraph "J".

"2" - Entrance to Broad Creek (North side). This sounding, as charted seems to indicate controlling depth of 2 feet into Broad Creek. This however is not the case. It is recommended that ⁴" be charted at 38-08.67, 75-51.19, as indicative of the controlling depth into the creek.

^{Chart} Wharf, Lat. 38-08.7, Lon. 75-51.1². Expunge. Chart small wharf and boathouse near signal "Win" shown on air photo. compilation and located by graphic triangulation on sheet CO-49-G (Shed on Pier, not a hydrographic signal). See also position 11 a, Ark.

^{Chart} Wharf, Locust Point, Lat. 38-08.7, Lon. 75-47.8. Expunge, wharf as no longer extant.

^{Chart} Wharf - Broad Creek (South side), Lat. 38-07.9, Lon. 75-49.5⁶, Expunge, The wharf is no longer extant. Signal Duk is on a duck blind at the end of a line of old piling which is the remains of Cox's wharf, the line of piling has silted in to a considerable distance from the charted high water line.

O COAST PILOT NOTES:

Reference U.S. Coast Pilot, Atlantic Coast, Section C, 1947 edition, page 307, line 9 et seq.

Line 15 - 16, expunge "to within three miles of Locust Point", insert "No aids are maintained East of the buoy marking the shoal South of Saint Pierre Island". (Please see also Report for Sheet CO-1349).
(H-7779, 1944)

ANCHORAGES: The COWIE did not anchor within the limits of this sheet. Anchorage was used East of Saint Pierre Island which is described in connection with Sheet CO-1349 q.v.
(H-7779, 1944)

TRIBUTARIES:

Broad Creek (North side) is little used except by residents just inside the entrance (see wharf and boathouse near signal Win).

Controlling depth to point in mid stream off the wharf is 4 feet at M L W. and for approximately 0.1 mile further. Depth along face of wharf, 2 feet. Enter on N W course close to pass point 100 yds. S E of the West bank at the mouth of the creek, thence North by East, passing 80 yards East of West bank at mouth, thence mid stream.

Geanguakin
Shoal creek just East of Broad Creek is shoal, less than 1 foot at entrance and no traffic within this creek was observed during the progress of the survey.

Saint Peters Creek has depths of 1 foot at M L W at entrance and 1 to 3 feet inside, many local boatmen reside along the banks of this creek, mooring their boats inside the creek.

Above Locust Point and ^{Raccoon}~~Beacon~~ Point where the river branches, the depths are shoal and the waterways are used only as oyster beds. Oyster buyers ascend the river to near ^{Raccoon}~~Beacon~~ Point. The Northern branch above (East of) longitude 75-46.5, and the Southern branch above Lon. 75-47.0 are drainage ditches only. No traffic was observed therein.

Vertical clearance of power lines crossing these waterways are of no consequence and no attempt was made to determine them.

Soundings have been carried with the Ark up these estuaries, controlling depths are 1 foot at M L W at points near mouth which can be carried as follows: Northern branch, 2.7 mi. to fork, 38-10.25, 75-43.80; left fork, 1.6 mi. to another fork, Lat. 38-11.05, Lon. 75-42.65, thence left fork, 1.5 mi. to point where the creek shoals to less than 1 foot, 0.1 mi. before reaching a fixed highway bridge, V.C. 5 ft., H.C. 18 ft. right fork, 1.4 mi. to point where creek shoals to less than 1 ft.

From Fork at 38-10.25.20, 75-43.80, the controlling depth of 1 foot can be carried 0.9 mi. in the right fork to a fixed highway bridge, V.C. 1½ ft., H.C. 5 ft.

South fork of main river: The controlling depth of 1 foot at M L W can be carried 1.4 mi. to a fixed highway bridge, V.C. 2 ft., H.C. 7 (p. 5 17 d. blue) ft.

Shallow bight South of Maddox Island has less than 1 foot at M L W at entrance and is no value.

Wolftrap Creek has depths of 4 to 5 feet at M L W in its mouth. No traffic in this creek was observed during progress of the survey.

Broad Creek (South side) has depths of 3 to 4 feet in its wide part. Launch No. 102 and Ark were anchored in this creek while COWIE was en route to and from Crisfield. No local traffic in this creek during progress of the survey.

Currents estimated at maximum 0.6 knots ebb and flood within the navigable portion of the river.

P AIDS TO NAVIGATION:

No aids are maintained within the limits of the survey. Bush markers are for leased oyster beds.

Q LANIMARKS FOR CHARTS:

See form 567 attached. *Not recd from field party.*

R GEOGRAPHIC NAMES: ⁸⁰²⁴

All worthwhile geographic names are presently correctly charted.

U-Y MISCELLANEOUS:

No unusual conditions were encountered nor unusual methods employed in the survey of this sheet.

Hydrographic signal "Cod" is an M S F C mark.

Respectfully submitted:

Ector B. Latham
Ector B. Latham,
Chief of Party.

STATISTICS

SHEET CO-1449 1/10,000 MANOKIN RIVER

Launch No. 102

Date	Pos.	Stat. mi.	HL & P	Bar ohk.	Day
Aug. 12	186	30.0	32	2	a
16	74	11.6	2	2	b
Total	260	41.6	34	4	
Ark					
Aug. 11	54	9.5	287		a
16	225	36.2	110	2	b
17	209	34.2	5	2	c
18	17	3.0		1	d
19	163	36.3	27	2	e
22	41	6.3		2	f
Total	709	125.5	429	9	
Total for sheet	969	167.1	463	13	

Sq. stat. mi. 6.5

LIST OF SIGNALS
To Accompany

HYDROGRAPHIC SURVEY H-7780 (Field No. Co-1449)

TRIANGULATION STATIONS

FITZ (M.S.F.C.), 1907-42

LOCUST (M.S.F.C.), 1907-42

TOPOGRAPHIC STATIONS,

SOURCE GRAPHIC CONTROL SHEET T-7127 (Co-49-G)

AIM (not SL)	OKE (SL)
APE (not SL)	OLD (SL)
BAG (SL)	OWN (not SL)
BIG (not SL)	PIN (SL)
BLY (outside SL)	REB (not SL)
BUS (not SL)	REE (not SL)
COD (SL) (MSFC Mark)	RIP (SL)
DID (SL)	RUS (SL on GC sheet)
DUK (outside SL)	SAM (SL)
END (SL)	SEE (SL on GC sheet)
ERR (SL on GC sheet)	SOW (not SL)
FUM (not SL)	TIL (SL)
HED (SL on GC sheet)	TOM (not SL)
HOO (SL)	TOP (SL on GC sheet)
JUT (SL)	USE (not SL)
LAS (SL)	VEX (SL)
LEN (SL)	WAR (SL)
MAN (SL)	WAT (SL on GC sheet)
MID (SL)	WED (SL)
NES (not SL)	WIN (not SL)
NEW (SL)	YAK (SL)
NIT (outside SL)	ZUG (SL)
OFF (not SL)	

HYDROGRAPHIC STATIONS

SOURCE GRAPHIC CONTROL SHEET T-7127 (Co-49-G)

FEN

Note: Stations marked (SL) are within 3 meters of the shoreline

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-7780 (Field No. Co-1449)

Hydrographic Survey H-7780 was smooth plotted at the Norfolk Processing -
Office.

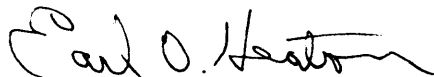
Respectfully submitted,



Hugh L. Proffitt
Cartographer

Norfolk, Va.
2 June 1950

Approved & Forwarded:



Earl O. Heaton
Supervisor, Southeastern District.

COPY

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~

21 June 1950

Division of Charts: R. H. Carstens

Plane of reference approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 7780

Locality - Manokin River, Chesapeake Bay

Chief of Party: E. B. Latham in 1949

Plane of reference is mean low water, reading
2.6 ft. on tide staff at Teague Creek Entrance
3.3 ft. below B. M. 1 (1949)

Height of mean high water above plane of reference
is 2.1 feet.

Condition of records satisfactory except as noted below:

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

Hydrographic Surveys (Chart Division)

H-7780
HYDROGRAPHIC SURVEY NO.

Records accompanying survey:

Boat sheets ⁴....; sounding vols. ⁴....; wire drag vols.;
bomb vols.; graphic recorder rolls ³envel.
special reports, etc.
.....

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

Number of positions on sheet	.....	969
Number of positions checked	.....	137 <i>First sheet assigned to new verifier</i>
Number of positions revised	.....	1.....
Number of soundings revised (refers to depth only)	.....	18.....
Number of soundings erroneously spaced	.....	27....
Number of signals erroneously plotted or transferred	.....	0.....
Topographic details	Time	..12..
Junctions	Time	..0...
Verification of soundings from graphic record	Time	..42 hrs

Verification by *Philip M. Shesky*..... Total time *16.8 hrs* Date *July 30, 1950*

Reviewed by *W. J. ...*..... Time *11 hrs* Date *11/22/50*

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7780

FIELD NO. CO-1449

Maryland, Chesapeake Bay, Manokin River
Surveyed in August, 1949 Scale 1:10,000
Project No. CS-287

Soundings:

Control:

808 Fathometer
Sounding Pole

Sextant fixes on shore signals

Chief of Party - E. B. Latham
Surveyed by - E. B. Latham
Protracted by - S. M. Tarkenton
Soundings plotted by - S. M. Tarkenton
Verified and inked by - P. M. Klosky
Reviewed by - I. M. Zeskind, 22 November 1950
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with air-photographic surveys T-8133 and T-8151 of 1942. Shoreline revisions shown in solid red lines are from graphic control survey CO-49-G (field number) which was subsequently destroyed. Shoreline revisions shown in dashed red lines are from the boat sheet of the present survey.

The source of the control 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 were adequately delineated. Except for several deeps, the bottom is fairly smooth. Mud flats of varying extent are found throughout the surveyed area. A natural channel with depths along its axis ranging from 3-19 ft. extends eastward to Maddox Island.

4. Junctions with Contemporary Surveys

The junction with H-7779(1949) on the west will be considered in the review of that survey. No other contemporary surveys join the present survey.

5. Comparison with Prior Surveys

H-707(1859) 1:20,000 and H-2611(1902) 1:20,000

A comparison between the prior and present surveys reveals, in general, minor differences of 1-2 ft. in depths of 2-10 ft. However, greater differences in depths which are caused by shoaling are found in the natural channel. Here differences in depths of as much as 9 ft. are found, as for example in lat. $38^{\circ} 08.28'$, long. $75^{\circ} 49.69'$, where a prior depth of 17 ft. falls in present depths of 8-10 ft. Minor differences in shoreline locations between the prior and present surveys are noted. These differences are due to the interpretation of the high-water line in marshy areas.

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

6. Comparison with Chart 1224 (Latest print date 7/17/50)

A. Hydrography

The charted hydrography originates principally with the previously discussed surveys, supplemented by the U. S. Corps of Engineers' survey of 1939-40 (Bp 35141) and the present survey before review.

The present survey is adequate to supersede the charted information.

7. Condition of Survey

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

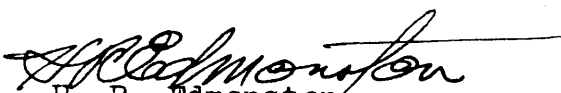
8. Compliance with the Project Instructions

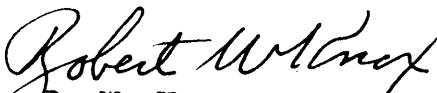
The survey adequately complies with the Project Instructions.


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
Chief, Nautical Chart Branch


R. W. Knox
Chief, Division of Charts


L. S. Hubbard
Chief, Section of Hydrography


W. M. Scaife
Chief, Division of Coastal Surveys

