7003

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. 113 Office No. ~~H-8050~~ H-7003

LOCALITY

State Maryland

General locality Chesapeake Bay
Upper Tred Avon River

Locality ~~and tributaries~~

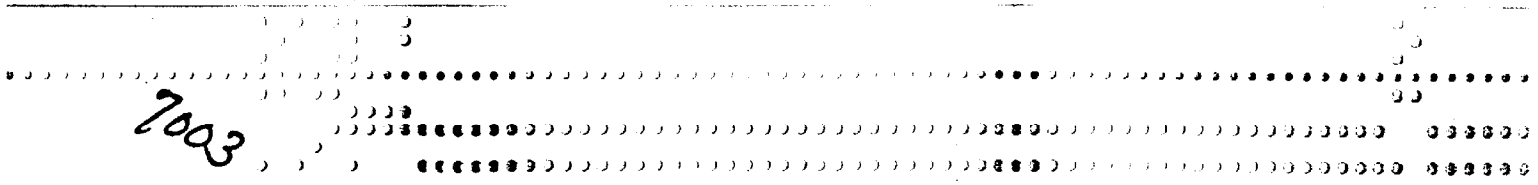
1944

CHIEF OF PARTY

L.P. Raynor

8-1870-1 (1)++

7003


2003

Form 537
Ed. Dec. 1930

REG. NO. H7003

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.

Field No. 113

REGISTER NO. H-7003 ~~H-8980~~

State Maryland

General locality Chesapeake Bay, Upper Tred Avon River ~~and tributaries~~

Locality

Scale 1:10,000 Date of survey Nov. 14th to 19th, 1944

Vessel Ship LYDONIA - Launch 100

Chief of Party L.P. Raynor

Surveyed by G.W. Lovesee

Protracted by Norfolk Processing Office

Soundings penciled by "

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by

Inked by J.M. Mc Alinden

Verified by J.M. Mc Alinden

Instructions dated April 17, 1940 & September 12, 1944

Remarks:

U. S. GOVERNMENT PRINTING OFFICE

DESCRIPTIVE REPORT TO ACCOMPANY
Hydrographic Sheet H-~~6950~~ 7003
Field Sheet F-113, 1944.
Upper Tred Avon River & Branches
Vicinity of Easton, Maryland.
L.P. Raynor, Chief of Party
Commanding Officer Ship LYDONIA.
Surveyed by G.W. Lovesee.
Scale 1:10,000.

A. PROJECT: The authority for this survey is contained in the Instructions from the Director for Project No. CS-250, dated April 17, 1940. Additional Instructions dated Sept. 18, 1942. Supplemental Instructions dated Sept. 23, 1943. Supplemental Instructions for the present season are dated Sept. 12, 1944.

B. SURVEY LIMITS AND DATES: This is a complete new survey of the upper Tred Avon River, Peachblossom Creek, Maxmore Creek, Dixon Creek, and all branches of these streams, north of latitude 38° 43.7' north.

This sheet joins Hydrographic Survey H-7002 Field Sheet No. F 713, 1944 to the south.

~~The northern half of this Field Sheet, which included the upper reaches of the Miles River, was surveyed during the previous season of 1943.~~

C. VESSELS AND EQUIPMENT: The survey of this sheet was accomplished with Launch No. 100 which operated from the ship LYDONIA at anchor in the Choptank River off Oxford, Maryland.

Model 808 Fathometer No. 76 was used for all fathometer soundings on this survey. In general shoal areas less than 5 feet deep were sounded with the sounding pole. Occasional checks were taken with the hand lead for comparison with the fathometer soundings.

D. TIDE AND CURRENT STATIONS: The tide gage at Easton, Md. was used for this entire sheet. On the boat sheet the tide gage at Oxford, Md. was used to obtain reducers at the end of each days work as it was not convenient to run all the way to the Easton Gage to obtain the daily reducers.

No current stations were established on this survey.

E. SMOOTH SHEET: The smooth sheet for this survey will be plotted by the Norfolk Processing Office.

F. CONTROL STATIONS: The following triangulation stations are used on this sheet: MAY 1910; RADCLIFFE 1910; EASTON 1934; CAMDEN 1910; BLOSSOM 1910; WALL 1910.

The topographic signals were located by air photographic methods, see Ozilids No. T-5712, 5713, 5714.

See the list of signals attached to this report and in the front of sounding volume No. 1 for list of various types of signals used on this sheet.

Signals in green on the boat sheet and smooth sheet are pricked from points identified on the ozilids. The points pricked are described on the boat sheet beside the name of the signal.

Hydrographic Signals, shown in blue on the boat sheet, are located by three point sextant fixes which are recorded in the sounding volumes and indexed on page 2 of volume 1.

G. SHORELINE AND TOPOGRAPHY:

North of Dixon Creek in the Tred Avon River it was necessary to locate the signals by planetable methods. The boat sheet was used as a topo sheet.

At three places a descrepancy was noted on the shoreline, as follows: At latitude 38° 46.00', longitude 76° 06.05' between signals Tap & Use the stream to the north had been shown as marsh. This stream is about 50 meters wide at its mouth and extends north-northwest about 200 meters before narrowing down as shown on the ozilid. It has been sketched on the boat sheet from photographs No. 1349, 1663, and 4730. At high tide it is filled with water but is too shoal to sound with the launch. The stream 0.3 mile south on the opposite side of the river should not be shown as filled with marsh grass as there is 1 to 3 feet of water here at mean low water.

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Photo compilations revised to conform.

At latitude 38° 44.85', longitude 76° 06.88' the ~~marsh~~ shore line ~~grass~~ extends out to signal Nut as shown on the boat sheet. The shoreline was corrected from the photographs listed in the previous paragraph.

Ditto

At latitude 38° 44.80', longitude 76° 08.00' the shoreline should extend further north as shown on the boat sheet. This shoreline was corrected from the photographs listed in the second paragraph above. This area is quite shoal but is filled with water before high tide. A sounding line was run into the end of this creek, ~~but as~~ the time and speed on course between positions 137 and 138 did not check well. ~~the soundings were rejected.~~ SDGS ACCEPTED

Ditto

On the rest of the boat sheet the shoreline and topography checked very well and no corrections or additions are necessary.

H. SOUNDINGS:

See heading "C" Vessels and equipment.

No unusual or special methods, equipment, or corrections were used.

I. CONTROL OF HYDROGRAPHY:

In all of the main streams soundings were located by three point fixes, taken with sextants, on shore signals, and plotted with the 3 arm celluloid protractor.

In some of the smaller streams where three point fixes could not be obtained the positions were obtained by bearings and distances from a signal or from the adjacent shoreline. The bearing to the signal was taken with the boat compass and azimuth circle. The distance was obtained with a range finder.

J. ADEQUACY OF SURVEY:

This sheet is a complete resurvey of the area. It should supersede all prior surveys for charting purposes.

The junction with the sheet to the south is satisfactory, no holidays exist, and depth curves can be adequately drawn.

K. CROSSLINES:

An adequate number of crosslines were run. Soundings were plotted on the boat sheet to the tenth of a foot using reducers taken from the Oxford Tide Gage at the end of each days work. In all cases soundings on crosslines checked the main scheme of lines to a fraction of one foot.

The depth of the river and creeks surveyed on this sheet is too shoal to convert the difference between the crossline soundings and the main scheme soundings to a percentage of descfepancy.

9.5 miles of crosslines were run or 15%.

L. COMPARISON WITH PRIOR SURVEYS:

See comparison with chart below.

M. COMPARISON WITH CHART:

The soundings on the boat sheet compare well with the charted soundings. The depth and position of the channels have changed very little.

N. DANGERS AND SHOALS:

The only dangers and shoals found on this sheet are usual shoal areas off points that are always found in this type of river and streams. The water area on this sheet ~~is~~ is quite safe for small craft as the bottom is sandy or muddy.

No dangers were found to be reported.

O. COAST PILOT INFORMATION:

Anchorage for small motor launches and pleasure craft is found in or near mid-channel in any of the larger streams. In the main channel in the river the bottom is quite firm. In the side streams ~~is~~ the bottom is mostly soft mud.

There is only one buoy marking the channel within the limits of this sheet. This black spar buoy is near the southern limits of the sheet. There are no ranges for marking the channels. Mid-channel courses can be steered with safety by craft drawing 5 to 6 feet of water. The only shoal approaching mid-channel is the one extending to the southwest from Watermellon Point. Here a shoal having a least depthof about 4 feet is found near mid-channel. The north bank of the river should be favored when passing Watermellon Point.

Excellent protection is obtained from the wind except when blowing directly up or down stream. In general the banks are lined with brush and trees which helps to give further protection from the wind.

Fresh water can be obtained at the docks at Easton Point in small amount.

Eight feet can be carried to the docks at Easton Point at mean low water. Local Pilots having knowledge of the channel below Easton Point can probably find ten feet of water at mean low tide all the way to the docks. There is ten feet of water alongside the dock on the southwest side of Easton Point. This dock is about 200 meters long and extends all the way between signals Wad & Yak. The dock is new and in excellent condition. The northwest third of this dock is the Gulf Oil Corporation. The center third of the dock is the McKelly Willis and Son Feed and Seed Company. The southeast third of the dock is the Sinclair Refining Co. The dock on the northwest side of Easton Point and just south of signal Pug is the Standard Oil Company "Esso" dock.

The three Oil Companies mentioned in the above paragraph receive oil and gasoline from small tankers which regularly come up the Tred Avon River. They all have large storage tanks just back of the dock.

Considerable freight is shipped by water from Easton Point docks during the summer and fall. The chief freight consists of fresh vegetables, wheat and grains, and canned goods from vegetable canneries in the near vicinity.

Normal tidal currents are found in the Tred Avon River and no unusual currents were found.

No wrecks or other obstructions were found within the limits of this sheet.

The channel below Easton Point and alongside the docks at the point have been dredged. This dredged area shows no sign of shoaling. The turning area for small freighters and tankers is limited and is found directly southwest of Easton Point.

P. AIDS TO NAVIGATION:

The one aid to navigation is a black spar buoy at latitude 38° 43.97', longitude 76° 07.94'. This buoy is listed in the Light List as "Long Point Buoy 7". It is a black, 4th class spar buoy. See volume 2, page 42, position 1 "d" day for its location by three point fix. The depth of water at the buoy was 13.7 feet at mean low water using the observed tides at Oxford, Maryland.

There is a highway bridge over the Peachblossom Creek at latitude 38° 44.1', longitude 76° 05.3' between signals, Fog & Nip. This is a concrete bridge with concrete piling and abutments. The horizontal clearance between piling near mid-channel is 22 feet. The vertical clearance at mean ~~low~~ high tide is about 8 feet, see volume 3, page 36, position 32 "f" day.

There is a railroad bridge at the head of Peachblossom creek at signal New, latitude 38° 43.93', longitude 76° 04.35'. The vertical clearance of this bridge is about 15 feet.

There are no overhead or submarine telephone, telegraph, or cable lines within the limits of this sheet to my knowledge.

Q. LANDMARKS FOR CHARTS:

This report has been made by the field parties of the Air Photographic Division. No additional landmarks for charts are recommended.

R. GEOGRAPHIC NAMES:

This report has been made by the air photographic field parties. No new geographic names are recommended.

S. SILTED AREAS:

In general the bottom is very soft in all creeks and tributaries of the Tred Avon River, in depths less than five feet. In these shoal depths the Model 808 Fathometer did not give the correct depth in many cases as proved by comparison with the sounding pole. For this reason pole soundings were taken in these soft bottom areas where the bottom is less than five feet deep. In soft bottom where the sounding pole could be shoved into the mud for a foot or more the echo from the fathometer did not appear to register on the fathogram until firmer bottom under the soft mud reflected the echo. Comparisons in water over 5 feet deep checked very well.

T. thru Z. Does not apply to this descriptive report.

Respectfully submitted,

George W. Lovesee

George W. Lovesee
Lieut. Commander
U.S.C.& G. Survey.

Forwarded approved:

L. P. Raynor

L. P. Raynor
Commander, USC&GS
Chief of Party

Inspection of fathograms indicates that fathometer soundings are in error because the initial shifts ½ to 1 foot when cut out is used and gain reduced. Character of the bottom not relevant.

J.A. McCormick.

STATISTICS FOR HYDROGRAPHIC SURVEY H-7003
1944. F-113

Volume	day letter	Date	No. of soundings	No. of positions	Stat.miles
1	a	11-14	1	155	8.0
1	b	11-15	69	95	10.5
2	c	11-16	195	133	12.0
2	d	11-17	130	133	15.0
3	e	11-18	105	126	11.5
3	f	11-19	357	142	13.8
		Total	857	784	70.8

9.5 miles of crosslines were run or 13%.

2.2 square statute miles of hydrography on this sheet.

LIST OF SIGNALS USED * FIELD SHEET 115, 1944 H-7003

TRIANGULATION

EASTON 1934; BLOSSOM 1910; CAMDEN 1910; MAY 1910; WALL 1910; RADCLIFFE 1910 AIM.

TOPO SHEET T-8712

ABE	HAG
ADO	HEN
BAG	IKE
CAB	JAP
CEB	KED
CON	MAC
DAW	NAY
DOG	OBI
EAR	OLD
ELM	PAD
END	PUT
FAR	QUO
GAD	RAM

*Spotted from Topo sheets and described on boat sheet, shown in green ink on boat sheet.

TOPO SHEET T-8713

BAR	RAG
COW	RIM
FIX	RIG
GAL	RIP
GIN	ROT
GUS	SAG
HID	SAD
IDA	SKI
LEG	SOB
MAN	SOK
MOP	SUB
NAT	SUE
NUT	TIN
PEP	UNO
PIE	USE
PUG	WAD
WAT	WAG
*CAR	*GAM
*DEB	*HEM
*EEL	WED

TOPO SHEET T-8714

EMO	POT
GET	PRO
GUY	SAM
HUM	SLY
JAR	TAN
JAY	TOM
JOY	TUG
LAX	VEX
LOW	ZAG
NED	ZIG
OAK	
*CUT	*NIP
*EVA	*NOD
*FOG	*OWL
*HER	*SIR
*HIS	*SHE
*NEW	*VET

HYDROGRAPHIC SIGNALS

ACT	JUG
ADD	JUT
BAT	LAD
ECC	TUB
JIM	WAR

PLANETABLE SIGNALS USING BOAT SHEET AS TOPO SHEET

ACE	ION
BAH	MET
CAM	TAM
DAY	TAP
EAT	VAL
FAT	WAN
GAG	YAK
HAT	ZOO

TIDAL NOTE

Sheet F-113, 1944 Registry No. H-~~6980~~ 7003

The tide gage at Easton, Maryland was used for this entire sheet.

Mean low water is the plane of reference. No correction for time or height need be applied.

	Latitude	Longitude	Mean low water on staff
Easton	38° 46.09'	76° 05.70'	2.3 feet

Time difference on Baltimore is minus two hours & forty five minutes.

The observed tides at Oxford were used for reducing the soundings on the boat sheet as it was not convenient to obtain the daily reducers from the Easton Point Gage. No correction for time or height was made on the boat sheet.

Murray

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

September 5, 1945.

--Division-of-Hydrography-and-Topography:

Division of Charts: Attention; H. W. MURRAY

Plane of reference approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 7003

Locality Upper Tred Avon River, Maryland.

Chief of Party: L. P. Reynor in 1944
Plane of reference is mean low water, reading
2.3 **ft. on tide staff at** Easton Point
4.2 **ft. below B. M.** 1

Height of mean high water above plane of reference is 1.6 feet.

Condition of records satisfactory except as noted below:

E. K. Green
Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 154237

APPROVAL SHEET

The boat sheet was inspected daily and records frequently.

Both are approved.

L. P. Raynor
Commander, USC&GS
Commanding Ship LYDONIA
Chief of Party

GEOGRAPHIC NAMES

Survey No. H7003

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrang. Maps	D	E From local information	F On local Maps	G P. O. Guide or Ma.	H Rand McNally At.	K U. S. Light List	
Maryland			for title						USGS	1
Tred Avon River			386	761					"	2
Double Mills Pt			387	761	omit					3
Long Pt			"							4
Maxmore Creek			"							5
Neck Pt.			"							6
Shipshead Creek			"							7
Dixon Creek			"							8
North Fork			387	760						9
Easton Pt			"		(also location of tide staff)					10
Papermill Pond			"							11
Watermelon Pt			387	761						12
Camden Pt			"							13
Peachblossom Creek			"							14
LeGates Cove			"							15
										16
										17
					L. Heck 11/15/45					18
										19
										20
										21
										22
										23
										24
										25
										26
										27

M 23

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. ...H7003

Records accompanying survey:

Boat sheets ..1..; sounding vols. ..3..; wire drag vols. ....;

bomb vols. .....; graphic recorder rolls .6...;

special reports, etc. .....

.....

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

Number of positions on sheet		.784
Number of positions checked		.53.
Number of positions revised		..4..
Number of soundings recorded		3000 (approx.)
Number of soundings revised (refers to depth only)		..8.
Number of soundings erroneously spaced		..40.
Number of signals erroneously plotted or transferred		..1..
Topographic details	Time	..8..
Junctions	Time	..9..
Verification of soundings from graphic record	Time	.20..

Verification by JOHN M. McALINDEN Total time .57.. Date .10-31-45

Review by ...J. A. McCormick..... Time ..16.. Date .11/28/45

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY REGISTRY NO. 7003

FIELD NO. 113

Maryland; Cheaspeake Bay; Upper Tred Avon River
Surveyed in Nov. 1944 Scale 1:10,000
Project No. CS-250

Soundings:

808-A Fathometer

Control:

Three-point fixes on shore signals

Chief of Party - L. P. Raynor
Surveyed by - G. W. Lovesee
Protracted by - Norfolk Processing Office
Soundings plotted by - Same
Verified and inked by - J. M. McAlinden
Reviewed by - J. A. McCormick, Nov. 28, 1945
Inspected by - H. W. Murray

1. Shoreline and Signals

Sources of shoreline and signals are listed and discussed in the descriptive report.

2. Sounding Line Crossings

Agreement at crossings is satisfactory.

3. Bottom Configuration

Bottom in this area is predominantly soft mud, particularly in the tributaries. There are no outstanding shoals.

4. Adjoining Surveys

H-7002 (1944), adjoining on the southwest, has yet to be verified.

5. Previous Surveys

H-202 (1848), 1-20,000; H-1049a (1870), 1-10,000; H-2622 (1902), 1-20,000.

Comparison of old surveys with new indicates that bottom in this area

is fairly stable. Differences of 1 and 2 feet may be due to natural change but might also be influenced somewhat by improvements in surveying methods. The present survey is basic for the area and supersedes the older surveys except for bottom characteristics.

6. Comparison with Chart 1225 (Print of September 29, 1945)

Depths charted in the area are mostly from surveys discussed in the preceding paragraphs. There have been some revisions from B.P. 22288 (1928) in the approaches to the docks at Easton Point, presumably as a result of dredging mentioned in the descriptive report. Where the chart shows a controlling depth of 10 feet to the docks, the survey shows 8 feet to be the most practicable. The survey position of the spar buoy in latitude 38° 44', longitude 76° 08' agrees with that charted.

7. Compliance with Project Instructions

Excellent except for lack of recorded bottom characteristics.

8. Additional Field Work Recommended

None.

Examined and approved:

Robert W. King
Chief, Nautical Chart Branch

J. B. Bordeaux
Chief, Division of Charts

Earl O. Hudson
Chief, Section of Hydrography

Raymond P. Ingram
Chief, Division of Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. H7003

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
7-8-46	1225	J.M. Albert	Before After Verification and Review add 13 ft. sdg. near Long Pt.
2-3-47	Reconstr. 550	[signature]	No other change at present, nder and. cfp
1948	New chart 551	H.E.M. & L.SS	Before After Verification and Review VIA 550
3/27/64	77	O. Svendsen	Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

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.