

8702

Diag. Cht. No. 77-3.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. CO-10-4-61 Office No. H-8702

LOCALITY

State Maryland

General locality Wicomico River

Locality North of Charleston Creek

1961-62

CHIEF OF PARTY

P. A. Stark & D. G. Rushford

LIBRARY & ARCHIVES

DATE September 13, 1963

USCOMM-DC 5087

8702

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-8702

Field No. CO-10-4-61

State MARYLAND

General locality WICOMICO RIVER
~~Potomac River~~

Locality N. OF CHARLESTON CREEK
~~Wicomico River and Choptice Bay~~

Scale 1:10,000 Date of survey 30 July-6 Oct., 1961
6 June-18 July 1962
12 Sept

Instructions dated 23 April 1959, 6 December 1960, 15 Feb., 1962

Vessel C&GS SHIP COWIE

Chief of party LCDR P. A. Stark and D. G. Rushford
LTJG D. Seets, ENS M. Geiger, J. Cichy, C.H. Nixon

Surveyed by O.C.Swindell CQS

Soundings taken by fathometer, ~~XXXXXXXX~~ hand lead, ~~XXX~~ and sounding pole.

Fathograms scaled by Ship personnel

Fathograms checked by Ship personnel

Protracted by F. Bean

Soundings penciled by F. Bean

Soundings in ~~XXXXXX~~ fathoms feet at MLW ~~XXXXX~~ and are true depths.

REMARKS:

.....
.....
.....
.....
.....

115

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SURVEY
H-8702
Field No. CO-10-4-61

A. PROJECT

The work was executed under original instructions for project CS-409, dated 23 April 1959 and supplemental instructions for project OPR-409, dated 6 December 1960 and 15 February 1962. ✓

B. AREA SURVEYED

The area surveyed is in the Wico^mico River which is on the north side of the Potomac River. The 1961 survey began at Lat. 38 17.4N on the south with a junction of sheet H-8613(1961) (Field No. CO-10-3-61), extending to Lat. 38 20.4N on the north, continuing at Lat. 38 21.3N and extending to Lat. 38 22.0N. The 1962 work included the rest of the river to Lat. 38 25.0N. ✓

The 1961 portion of the survey was accomplished during the following dates: 30 July 1961 through 6 October 1961, the rest of the survey was done 6 June to 18 July 1962 except for three days in September 1962. ✓

C. SOUNDING VESSEL

Skiff 750, a 25 foot flat bottom skiff, powered with two 18 hp. outboard motors, basing from the Ship COWIE was used for the 1961 and 1962 portion of the survey. A catamaran twin skiff was used three days in September 1962. Violet ink was used to mark positions and day letters on the boat sheet. ✓

D. SOUNDING EQUIPMENT

Soundings were taken with a 16 foot sounding pole and a 808 type fathometer No. 164,120S, and 60, calibrated at 820 fm/sec., with the transducer units set in the bilges in water tight boxes. ✓

The skiff was operated at speeds from 3 to 7 knots, the speed varying due to the depth of water and density of grass. The turning radius was not determined. ✓

E. SMOOTH SHEET

The smooth sheet ^{was} ~~will be~~ plotted by the Norfolk Office, Hydrographic Processing Section.

F. CONTROL

The triangulation in this area is limited to one station, Burr 1908. The majority of the signals on this survey were located by photogrammetric methods on manuscripts T-10910, T-10911, T-10916, T-10917, T-10918 and T-10922. Several other stations were located by the hydrographic party. The ^hree point fix method of control was used throughout this sheet. A list of signals is appended with this report.

Field locations on black line prints of topo sheets

G. SHORELINE

The shoreline and topographic details were obtained from the ~~blue~~line manuscripts listed in section F. No changes were noted in either the shoreline or topographic details.

A new pier found by the hydrographic party is shown in red on present survey.

Due to the slight range of tide and the density of grass in some areas, the low waterline could not be clearly determined, however, sounding lines were run as close to the shoreline as practicable.

H. CROSSLINES

Approximately 8% crosslines were run. Depths at crossings on the boat sheet are in satisfactory agreement and no significant discrepancies were found. Predicted tides and no velocity corrections were used to reduce the soundings. ← on the boat sheet. This would account for slight discrepancies in the crosslines.

I. JUNCTIONS

The only junction with this survey was ^{H-8613(1961)} CO-10-3-61 which agreed very well with this survey. The depth curves are continuous between the two surveys.

J. COMPARISON WITH PRIOR SURVEYS

Preliminary review Item 20 was the only item listed for this sheet. Twenty minutes were spent in dragging for this stump (using the bar). No trace was found of the stump and it is suggested that this feature be deleted from the chart.

See Par. 7
Review

In 1962, about two hours was utilized for further searches, reliable sources stated, however, that the stump had deteriorated and nothing remains.

A comparison was made with chart No. 558, Potomac River, Scale 1:40,000, 4th. edition, November 16, 1959, and survey H-967 (1:20,000) 1868, indicates a good general agreement. However, the deep water channel shown between Latitude 38 17N and 38 18.5N seems to be gradually filling to cause the depth curves in this area to be in error.

At Latitude 38 19 45N, Longitude 76 51 30W there ^{are} ~~is~~ two shoals shown with least depth of 3 and 4 feet. A comparison with our survey reveals no such shoal and it is recommended that this be deleted from the chart. See overlays and boat sheet for 1962 verification of shoal areas.

3-ft. shoal found
on present survey.
φ 38°19'70
λ 76°51'45
4-ft. shoal carried
forward from
H-969 (1860-68)
φ 38°19'76
λ 76°51'39

K. COMPARISON WITH THE CHART

A comparison was made with C&GS Chart No. 558, scale 1:40,000, 4th. edition, November 16, 1959. There was good general agreement except for those features mentioned in section J.

See Par. 7
Review

L. ADEQUACY OF SURVEY

This survey is considered to be adequate. The 1961 completed portion is outlined section B, the rest of the project being completed in 1962, and should supercede all prior surveys for charting purposes.

See Par. 6
Review

M. AIDS TO NAVIGATION

A complete relocation of the aids to navigation for this sheet was accomplished.

N. STATISTICS

A total of 2756 positions and 335.3 nautical miles of sounding lines were run on this survey. Approximately 13 square nautical miles were covered in this 1961 and 1962 survey. ✓

In addition to the sounding lines there was one portable tide gage set up, one current station which falls within the limits of the survey, one magnetic station, and 43 bottom samples obtained. ✓

Respectfully submitted

LTJG D. Seets,
U.S.C&GS

TIDE NOTE

One portable tide gage was used to control the tidal data for this boat sheet. It was located at Lat. 38 ^{18.61} ~~15.10~~N and Long. 76 ^{43.98} ~~57.70~~W, Wicomico River. Mean low water was 1.4 feet on the staff and all heights recorded on the marigram should be corrected by this amount. { 1.4 ft. (1961)
1.0 ft. (1962)

The gage was inoperative for the period August 13-16. The inferred hourly heights for these dates was furnished by the Washington Office. ✓

The book of tide staff observations is enclosed with the boat sheet for the last two days work on this sheet. ✓

Time meridian 75W (ZD 5) was used for times at this tide gage. ✓

LIST OF STATIONS

H-8702

(CO-10-4-61)

Name Used in Hydrographic Survey	Origin of Station
	<i>Black line prints</i>
Abe	T-10922
Ace	T-10922
Act	T-10922
Add	T-10922
Ade	T-10917
Ado	T-10922
Ago	T-10918
Aha	T-10917
Aim	T-10917
Alp	T-10910
Amp	T-10910
Ann	T-10917
Ant	T-10922
Apt	T-10910
Bar	T-10922
Bat	T-10922
Bah	T-10917
Bib	T-10910
Big	T-10922
Boa	T-10922
Bob	T-10918
Bum	T-10910
Bur	triangulation hydrography
But	<u>Burr, 1908</u> T-10917
Cam	T-10922
Cat	T-10922
Cod	T-10917
Con	T-10922
Cow	T-10922
Cue	T-10922
Cur	T-10918
Cut	T-10917
Daw	T-10917
Deb	T-10922
Din	T-10917
Dip	T-10917
Don	T-10918
Dox	hydrographic
Dud	Vol. 1 Pg. 13
Dun	T-10922
Dul	T-10922

Name Used in Hydrographic Survey		Origin of Station
Ear		T-10910
Eat		T-10922
Ego		T-10922
Elm		T-10922
Emo		T-10917
Eon		T-10922
Era		T-10917
Erg		T-10922
Est		T-10918
Eva		T-10910
Fed		T-10917
Fit		T-10922
Fix	hydrographic	T-10911
Fly		T-10917
Fog		T-10917
Fop		T-10918
For		T-10922
Fox		T-10922
Fry	hydrographic	T-10922
Gag		T-10922
Gal		T-10918
Gin		T-10922
Got		T-10910
Gum		T-10922
Guy		T-10922
Gob		T-10922
Hag		T-10917
Hat		T-10922
Hem		T-10918
Hic		T-10922
Hid		T-10922
Hoe		T-10911
Hop		T-10910
Hug		T-10922
Hut	hydrographic	T-10916
Ice		T-10917
Ida		T-10922
Ion	hydrographic	Vol. 1 Pg. 11
Ivy	hydrographic	T-10916
Jap		T-10916
Jim		T-10917
Job		T-10922
Joe		T-10922
Jut		T-10911

Name Used in Hydrographic Survey	Origin of Station
Ked	T-10917
Ken	T-10922
Kid	T-10910
Lad	T-10917
Lam	T-10918
Leg	T-10910
Lip	T-10922
Liz	T-10922
Log	T-10922
Low	T-10917
Mar	T-10922
Mat	T-10917
Maw	T-10910
Met	T-10922
Moo	T-10918
Mor	T-10910
Mug	T-10917
Nal	T-10922
Nat	T-10922
Nay	T-10917
Ned	T-10910
Nes	hydrographic Vol. 3, Pg. 6 Ark work
Nig	T-10922
Nip	T-10910
Nit	T-10922
Nod	T-10922
Nor	T-10918
Nut	T-10917
Oak	T-10910
Oki	T-10910
Owl	T-10922
Pad	T-10917
Par	T-10910
Paw	T-10918
Peg	T-10917
Pie	T-10917
Poe	T-10922
Poi	T-10922
Pol	T-10917
Pug	T-10910
Put	T-10910
Rag	T-10911, T-10917
Rio	T-10918
Rot	T-10910
Roy	T-10910
Rub	T-10922

Name Used in Hydrographic Survey	Origin of Station
Sal	T-10917
Sam	T-10922
Sax	T-10911
Set	T-10917
Sil	T-10917
Sir	T-10917
Sly	T-10917
Sol	T-10910
Sop	T-10917
Sow	T-10918
Sox	T-10917
Sub	T-10922
Tab	T-10917
Toy	T-10910
Tub	T-10917
Use	T-10910
Val	T-10910
Vet	T-10910
Wan	T-10917
Wag	T-10922
Was	T-10917
Wee	T-10917
Wes	T-10917
Wig	T-10917 Vol. 2, Pg. 16
Wit	T-10910
Yam	T-10910
Yak	T-10917
Yet	T-10917
Zag	T-10917
Zig	T-10917
Zim	T-10917
Zip	T-10922
Zoo	T-10910

Note: unless otherwise shown on the above list of stations,
the signals were located by topographic means.

ABSTRACT OF FATHOMETER CORRECTIONS

Sheet CO-10-4-61

Skiff 750

Fathometer No. 164

June 25-Sept. 8 l,aa,ba days	Fathometer Correction (ft.)
Fathometer reading (ft.)	
A Scale	
0.0-50.0	0.0
B Scale	
none	

Fathometer No. 60

June 26 m day	Fathometer Correction (ft.)
Fathometer reading (ft.)	
A Scale	
3.5- 5.9	+0.2
5.9- 8.0	+0.4
8.0-10.5	+0.6
10.5-13.0	+0.8
13.0-	+1.0

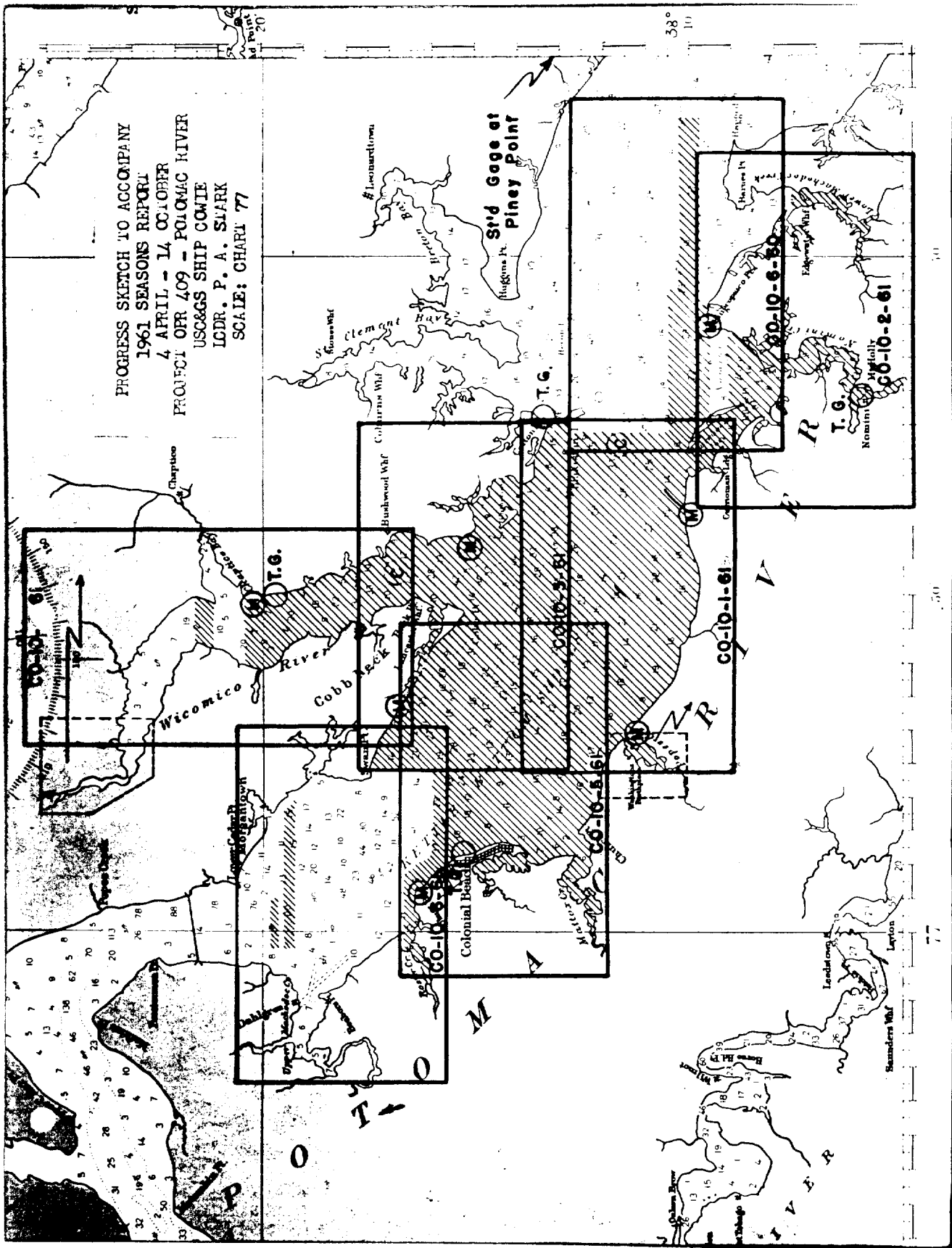
Fathometer No. 60

June 27- Aug. 5 n,p,s days	Fathometer Correction (ft.)
Fathometer reading (ft.)	
A Scale	
2.0- 5.4	0.0
5.4-12.0	+0.2
12.0-30.0	+0.4

Fathometer No. 60

June 29 q day	Fathometer Correction (ft.)
Fathometer reading (ft.)	
A Scale	
3.0- 6.1	+0.4
6.1-13.2	+0.6
13.2-30.0	+0.8

PROGRESS SKETCH TO ACCOMPANY
 1961 SEASONS REPORT
 4 APRIL - 14 OCTOBER
 PROJECT OFR 409 - POLOMAC RIVER
 USO&S SHIP COMIE
 LCDR. P. A. STARK
 SCALE: CHART 77



NORFOLK RECORDS PROCESSING UNIT

FLOATING AIDS TO NAVIGATION
TO ACCOMPANY H-8702 (CO-10-4-61)

<u>BUOY</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>POS. NO.</u>	<u>DEPTH</u>	<u>DATE</u>
<u>WICOMICO RIVER</u>					
Buoy 3 ✓	38-17.87	76-50.23	9k	9ft.	10-6-61
Buoy 7 ✓	38-19.31	76-50.94	1u	11ft.	7-9-62
Buoy 9 ✓	38-19.77	76-51.20	2u	13ft.	7-9-62
* Buoy ✓	38-21.37	76-50.68	21u	10ft.	7-9-62
* Buoy ✓	38-20.15	76-51.12	23u	4ft.	7-9-62.
Buoy 4 ✓	38-20.11	76-51.26	25u	9ft.	7-9-62

* Unnumbered buoys

WICOMICO RIVER SPAR BUOYS

Spar Fairway ✓	38-20.77	76-51.03	7u	8ft.	7-9-62
Spar H ✓	38-21.31	76-50.83	22u	8ft.	7-9-62
Spar E ✓	38-20.14	76-51.24	24u	6ft.	7-9-62
Spar D ✓	38-19.60	76-50.59	26u	11ft.	7-9-62
Spar C ✓	38-18.76	76-50.40	1v	14ft.	7-11-62

NORFOLK RECORDS PROCESSING UNIT
ADDENDUM
To Accompany
HYDROGRAPHIC SURVEY H-8702 (CO-IO-4-6I)

GENERAL

This appears to be an excellent basic survey. Soundings are in good agreement at crossings as discrepancies amount to one foot or less. ✓

DISCREPANCIES

Lat. 38-24.8 Lon. 76-56.3 -- Submerged rocks and piling: The remains of an old bridge foundation between positions 76 and 77w are not smooth plotted. See note Vol. 8, page 62, w day. Note made on survey.

Lat. 38-21.28 Lon. 76-50.38 -- Two foot discrepancy -- All pole soundings. Intersections of lines 100 to 101n and 131 to 132w. Not critical. Disregard.

¹¹³
Positions ~~106~~ thru 117n are not smooth plotted. Inadequate control. Adequately covered by other lines in this area. However there is a critical shoal of 4ft. between positions 114 and 115n. Pos. 106-112 n plotted. O.K. 4 ft. shoal sdg. probably falls near depths of 2-3 ft.

Positions 37 to 40p -- Soundings are not penciled on the smooth sheet. There appears to be a mix-up in the positions as soundings do not check adjacent hydrography. ok. Not needed

Respectfully submitted

Woodrow W. Feazel

Woodrow W. Feazel
Cartographer

Norfolk, Va.
6 Sept. 1963

EMC

TIDE NOTE FOR HYDROGRAPHIC SHEET

October 29, 1963

Nautical Chart Division: R. H. Carstens

Plane of reference approved in
11 volumes of sounding records for

HYDROGRAPHIC SHEET 8702

Locality Wicomico River & Chaptico Bay, Maryland

Chief of Party: D. G. Rushford (1962)

Plane of reference is mean low water reading

2.8 ft. on tide staff at Colton Point, Md.

5.1 ft. below B. M. No. 1 (1960)

1.4 ft. on tide staff at Wicomico River (1961)

1.0 ft. on tide staff at Wicomico River (1962)

3.0 ft. below Bench Mark No. 1 (1961)

Height of mean high water above plane of reference is:

1.6 ft. Colton Point

1.8 ft. Wicomico River

Condition of records satisfactory except as noted below:

NOTE: Tide reducers for positions listed below have been revised in red and verified.

$\frac{VOL}{7}$

$\frac{POS}{46S}$ to 90S

J. M. Symons
Chief, Tides and Currents Branch

GEOGRAPHIC NAMES
Survey No. H-8702

Name on Survey	On Chart No. 558 On previous survey On U. S. quadrangle Maps From local information On local Maps P. O. Guide or Map Rand McNally Atlas U. S. Light List BGN										
	A	B	C	D	E	F	G	H	K		
✓ Bramleigh Creek	x	L							x	1	
✓ Chaptico Bay	x									2	
✓ Chaptico Creek	x									3	
✓ Charleston Creek	x									4	
✓ Cobb Neck	x								x	5	
✓ Cohouck Point	x									6	
✓ Dolly Boarmans Cr.	x								x	7	
✓ Hatton Creek	x								x	8	
✓ Manahowic Creek	x								x	9	
✓ Mill Creek	X										
✓ Mills Point	x								x	10	
✓ Stoddard Point	x									11	
✓ White Point Bar	x									12	
✓ Wicomico Beach	x									13	
Wicomico River	x								x	14	
✓ Windmill Point	x									15	
✓ Woodberry Beach	x									16	
✓ Westwood Point										17	
✓ Woodland Point										18	
✓ Posey Creek										19	
✓ Tears Gut										20	
✓ Allens Fresh Run										21	
✓ Newport Run										22	
✓ Cooksey Island										23	
✓ Cooksey Point										24	
✓ Carpenter Point										25	
✓ McReynolds Point										26	
										27	

Georgina Ball
 Geographic Names Section
 11 October 1963

From
 T-10910

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .8702...

Records accompanying survey: Smooth sheets ..1...;

boat sheets ..1...; sounding vols. .11...; wire drag vols.;

Descriptive Reports ...1...; graphic recorder envelopes .8....;

special reports, etc. 1-Envelope containing boat sheet overlays;

.....

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

Number of positions on sheet		.2752.
Number of positions checked		..979.
Number of positions revised		.None.
Number of soundings revised (refers to depth only)		..75.. <i>largely tide reducer corr.</i>
Number of soundings erroneously spaced		.None.
Number of signals erroneously plotted or transferred		.None.
Topographic details	Time	.10 Hrs.
Junctions	Time	..7 Hrs.
Verification of soundings from graphic record	Time	.24 Hrs.
Special adjustments	Time	.None.

Verification by *H. Halden, Jr. Jones, Jr.* Total time 338 Hrs Date 2/10/64...

Reviewed by *John E. Westbrook* Time 67 hrs. Date 5/18/64

Information for Future Pre-survey Reviews

The Wicomico River seems to have maintained its general delineation and characteristics with but little change through the 100 years between H-969 (1:20,000) 1860-68 and the present survey.

The oyster shell lumps appear to have maintained their positions and least depths in the majority of cases.

Slight shifting of the depth curves over the entire area can be attributed to the slow changes expected in a mud bottom.

Sedimentation has occurred in the deepest portion of the river from 5-7 feet in 100 years, or about 1 foot in 20 years. This slow deposition is likely to continue.

A number of oyster shell lumps were not developed on the present survey, and are listed in Part 3 (c) of the review. The least depths on these features should be determined on any future survey.

The soundings carried forward from the prior survey H-969 (1860-61) should also, in the future, be verified or disproved.

Oyster shell lumps, similar to those found in the Potomac River to the southward, are present in the Wicomico River on the present survey. Some of these lumps protrude up to 5 feet from the bottom, are quite sharp, and cover a relatively small area.

The bottom in some places is quite irregular because of shoals making out from the points, and the existence of the numerous oyster shell lumps. The most important areas of irregular bottom occur off Mills Point and Windmill Point. At Mills Point, a sand bar extends about 0.5 mile westward about half way across the river. There is a 1-ft. sounding near its end.

Bars also extend off Stoddard Point and Cohouck Point. In other parts of the survey area, the bottom is muddy, generally smooth, and gently sloping.

Thick grass grows along most of the shoreline, and is thick enough to obstruct passage in some of the small creeks.

2. Control and Shoreline

The origin of the control is adequately covered in Part F of the Descriptive Report.

The shoreline originates with reviewed photogrammetric manuscripts T-10910 (1958-59); T-10911 (1959); T-10916 (1958-61); T-10917 (1958-61); T-10918 (1959); and T-10922 (1958-59).

The duck blind, signal FIX on the smooth sheet, in Lat. $38^{\circ}22.92'$, Long. $76^{\circ}51.82'$, was repositioned by the field party about 20 meters SE of the position shown on T-10911 (1959).

A pier, built subsequent to the date of T-10911 (1959), was located by the hydrographic party in Lat. $38^{\circ}22.82'$, Long. $76^{\circ}51.43'$. This pier is shown in red on the smooth sheet.

3. Hydrography

A. Depths at crossings are in good agreement.

- B. The usual depth curves were adequately delineated except for several areas where closer line spacing would have more clearly defined the limits of curves. An example of this can be found in the area of rugged bottom extending across the river off Windmill Point.

The 3-ft. depth curve was added to more adequately define the bottom configuration. Several soundings were emphasized by the addition of either dashed curves or brown curves in accordance with Par. 6-64 of the Hydrographic Manual.

The zero depth curve was not completely defined because of heavy grass and the small range of tide.

- C. The investigation of least depths is considered inadequate on the following important shoal soundings:

1. 9-ft. sounding in Lat. $38^{\circ}18.30'$, Long. $76^{\circ}50.14'$
2. 9-ft. sounding in Lat. $38^{\circ}19.23'$, Long. $76^{\circ}50.77'$
3. 7-ft. sounding in Lat. $38^{\circ}19.73'$, Long. $76^{\circ}51.21'$
4. 5-ft. sounding in Lat. $38^{\circ}19.70'$, Long. $76^{\circ}51.31'$
5. 4-ft. sounding in Lat. $38^{\circ}20.08'$, Long. $76^{\circ}51.41'$
6. 6-ft. sounding in Lat. $38^{\circ}20.36'$, Long. $76^{\circ}51.31'$
7. 8-ft. sounding in Lat. $38^{\circ}20.52'$, Long. $76^{\circ}51.34'$
8. 3-ft. sounding in Lat. $38^{\circ}20.49'$, Long. $76^{\circ}51.63'$
9. 4-ft. sounding in Lat. $38^{\circ}20.80'$, Long. $76^{\circ}51.09'$

4. Condition of the Survey

The field plotting, sounding records, and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual, except that the inspection stamps in the sounding volumes for the signature of the Officer-in-Charge and the Chief of Party were improperly completed or not completed at all. On most days, the names were filled in by someone else, so that it is not known whether or not the volumes were actually inspected by the Chief-of-Party. In addition, a separate approval sheet was not attached to the Descriptive Report to indicate the inspection or approval of the survey by the Chief-of-Party.

5. Junctions

An adequate junction was effected with H-8613 (1961) on the south. No other junctions were required.

6. Comparison with Prior Surveys

H-969 (1:20,000) 1860-68

The above survey affords the only prior coverage of the area of the present survey. A number of small creeks are covered on the present survey which were not previously surveyed.

The relatively small scale of the prior survey, and its lack of extensive development, prevent a detailed comparison with the present survey. However, silting of about 5-7 feet in depths of 20-30 feet is evident in the deepest portion of the Wicomico River since the prior survey.

The 4 ft. charted in Lat. $38^{\circ}17.62'$, Long. $76^{\circ}50.38'$ from H-969 is displaced about .08 mile southward from its true position and should be disregarded. In its correct position it falls in comparable depths on the present survey.

Another important difference can be found in Lat. $38^{\circ}17.8'$, Long. $76^{\circ}50.2'$, where the present shoal is about 150 meters westward of the prior shoal. The prior shoal depth of 3-ft. on H-969 (1860-68) was located where depths of 20-ft. are now available on the present survey. The records of H-969 are not available for verification of the plotting and the prior 3 should be disregarded.

In other areas, some shifting of depth curves is evident, but general depths are comparable.

The shoreline appears to be quite stable in the survey area. In addition, many of the shoals and oyster shell lumps were relocated on the present survey in approximately the same position and with comparable least depths as those shown on the prior survey.

There were, however, several shoal soundings on the prior survey which were not adequately disproved on the present survey. These soundings, generally least depths on oyster shell lumps, have been carried forward to the present survey.

With the addition of the several prior survey soundings mentioned above, the present survey is adequate to supersede the prior survey within the common area.

7. Comparison with Chart 558 - 5th Ed., Nov. 5, 1962

A. Hydrography

Most of the charted hydrography originates with the previously discussed prior survey which requires no further consideration. This hydrography has been supplemented by the application of critical depths from the boat sheet of the present survey.

The stump charted in Lat. $38^{\circ}19.76'$, Long. $76^{\circ}50.78'$ originates with an undetermined source, and has been charted since 1935.

In 1961 and 1962 the field party intensively investigated this reported feature by dragging the bottom with a bar in addition to sounding, and found nothing. Reliable local sources stated that the stump had deteriorated, which supports the findings of the hydrographic party.

In consideration of the above findings, and in concurrence with the recommendation of the hydrographer in Part J. of the Descriptive Report, the stump should be deleted from the chart.

A few minor piers which are charted do not appear on either the present hydrographic or photogrammetric surveys of the area. These piers should be removed from the chart.

The present survey is adequate to supersede the charted hydrography within the common area.

B. Aids to Navigation

Floating aids shown on the present survey are not in agreement with the charted positions. Most of the floating aids have been removed and replaced by daybeacons subsequent to the present survey. A revised numbering system is also in effect.

The charted position of the aids adequately mark the features intended.

Several spar buoys have been located on the present survey. They are apparently of local origin, privately maintained, and have not been charted.

8. Compliance with Instructions

The survey adequately complies with the Project Instructions except as noted in Part 3 (c) of this review.

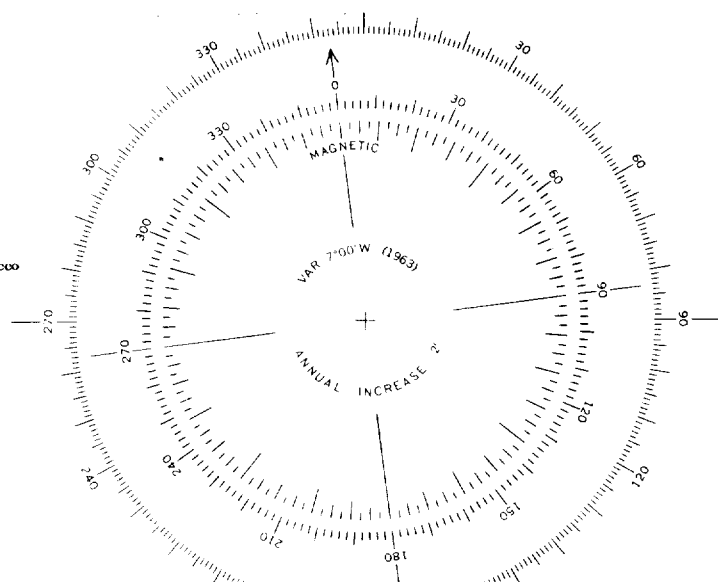
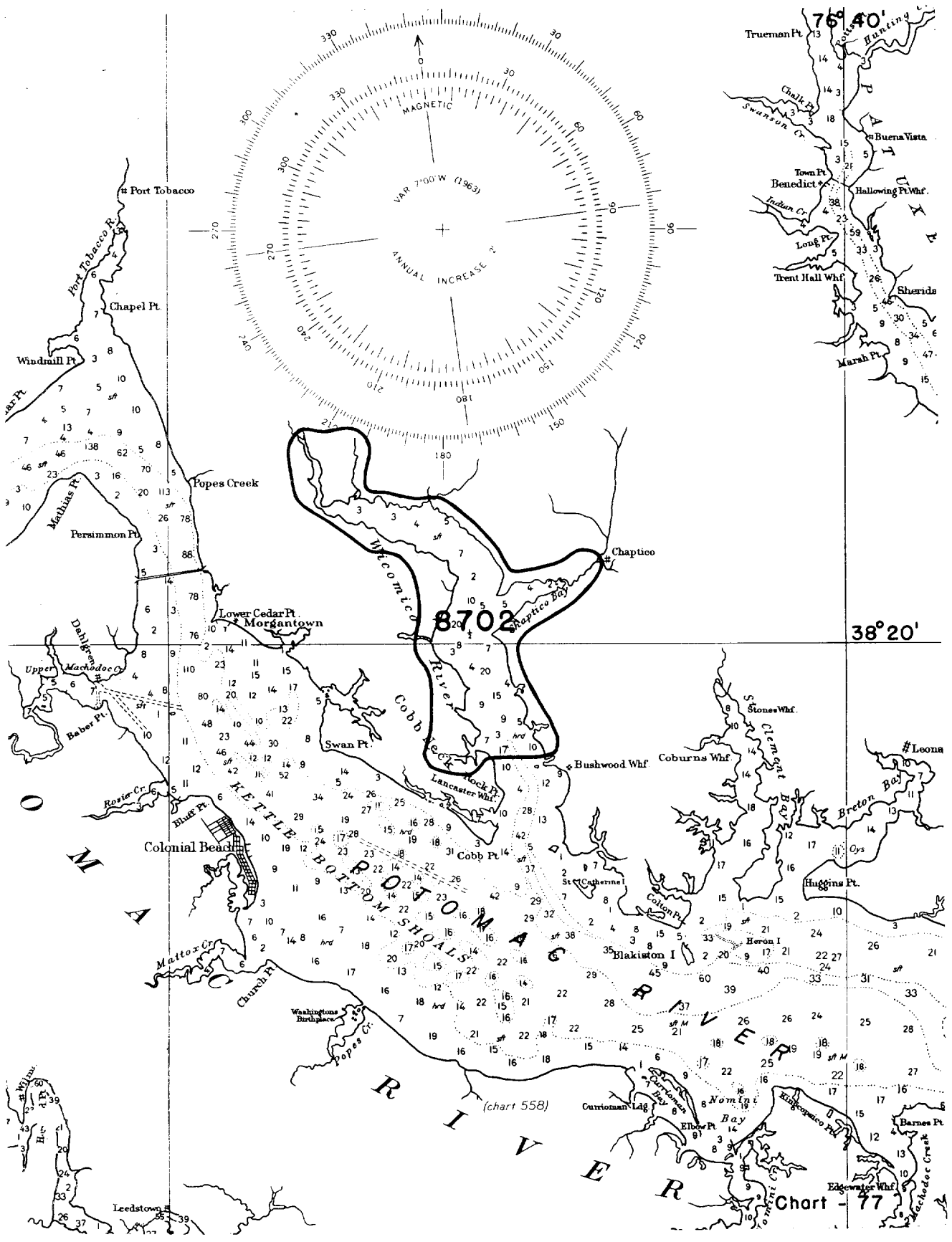
9. Additional Field Work

This survey is considered to be adequate for charting. No additional field work is recommended, however, any future survey in this area should include development for least depth on the shoal indications noted in Part 3 (c) of this review.

Wallace A. Bruden
Acting Chief,
Marine Chart Division

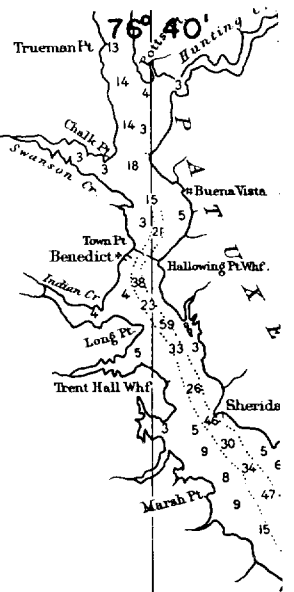
Examined and Approved:

W. J. Miller
Associate Director,
Hydrography and Oceanography



38° 20'

8702



POTOMAC

CHESAPEAKE BAY
RIVER

Chart - 77

