

7955

Diag. Cnt. Nos. 78-2 & 1222-3

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey **HYDROGRAPHIC**

Field No. **Co-1452** Office No. **H-7955**

LOCALITY

State **VIRGINIA**

General locality **CHESAPEAKE BAY**

Locality **SEVERN RIVER**

19 52

CHIEF OF PARTY

JOHN H. BRITAIN

LIBRARY & ARCHIVES

DATE **AUG 6 1953**

51870 1 (1)

65-350

7955

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-7955

Field No. CO-1452

State VIRGINIA

General locality CHESAPEAKE BAY

Locality SEVERN RIVER

Scale 1:10,000 ✓ Date of survey 10 July 19 Aug. 1952

Instructions dated 13 March 1952

Vessel Ship COWIE

Chief of party J. H. Brittain

Surveyed by ~~Ship's Officers~~ R.M. Borst & R.A. Parker

Soundings taken by fathometer, port 808-#63 & 118
~~graphic recorder~~, hand lead, ~~wire~~ pole

Fathograms scaled by Ship's Personnel

Fathograms checked by Ship's Personnel

Protracted by A.K. Schugeld

Soundings penciled by A.K. Schugeld

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

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

782

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SHEET H-7955, FIELD NO. CO-1452

SEVERN RIVER

CHESAPEAKE BAY

SCALE 1:10,000

SHIP COWIE

J. H. BRITTAIN, COMDG.

- - -

A - PROJECT:

Project CS-350; Original Instructions dated 13 March 1952.

B - SURVEY LIMITS AND DATES:

The area covered by this survey is the Severn River and area surrounding Browns Bay south to Monday Creek. Junction is made with CO-1252 (1952 to the south, with ^{H-7953}CO-2152 (1952) to the east, with ^{H-7960}CO-1752 (1952) to the northeast and with ^{H-7957}CO-1652 (1952) to the north. A junction is also made with H-7175 which is in the center of this survey. ⁽¹⁹⁴⁷⁾on the east. Hydrographic surveys began 10 July 1952 and were conducted through 19 August 1952.

C - VESSELS AND EQUIPMENT:

Thirty-foot launch no. 102 and 25 foot hydrographic skiff no. 737 were used, both boats operating from the Ship COWIE. Launch no. 102 using 808 type fathometer #63 was used where the depth was 6 feet or over in unconfined areas. Skiff no. 737 powered by two out-board motors using 808 type fathometer #118, pole and leadline for sounding was used in shoal areas close to shore and in creeks and inlets where the depths were not sufficient for launch operation.

D - TIDE AND CURRENT STATIONS:

A portable automatic tide gage was maintained at Cod Point, Severn River during the major part of this survey. The standard gage at Gloucester Pt. was used for 10 and 11 July and the gage at Mobjack, East River was used for the period 15 July through 18 July. Tide gage records and all soundings are on Eastern Standard Time. No current stations were observed in this area.

E - SMOOTH SHEET:

Projections will be constructed and sheets plotted by the Norfolk Processing Office.

F - CONTROL STATIONS: *(See Processing Office list of signals)*

1. The following triangulation stations were observed and used:

ARC	Archie (VFC), 1930	MAN	Manse (VFC), 1930-44.
BUC	Buck (VFC), 1930-44.	MAR	Marshall (VFC), 1930-44.
BRO	Broad (VFC), 1930-44.	MUD	Mud (VFC), 1930-44.
CED	Cedar (VFC), 1930-44.	PER	Perrin (VFC), 1930-44.
COC	Cocklin (VFC), 1930-44.	ROU	Rouse (VFC), 1930-44.
COD	Cod (VFC), 1930-44	STU	Stump (VFC), 1930-44.
CHO	School (VFC), 1930-44.	THO	Thorn (VFC), 1930-44.
HEY	Heyward (VFC), 1930-44.	VAU	Vaughn (VFC), 1930-44.
		YAN	Bryan (VFC), 1930-44.

2. The following topographic stations were used:

ABE - RS-437	DUD - RS-433	HOE - RS-437	PEA - RS-433
ACT - 437	DUE - 433	IDA - 433	PEB - 433
ADD - 437	EAR - 437	IDE - 433	PIN - 433
ALE - 438	EGG - 437	IRE - 437	PUT - 438
ALL \emptyset 433	ELY - 433	JACK - 438	REM - 437
ANT - 433	ERN - 433	JAY - 433	RED - 433
ARD - 433	EVE - 437	JEW - 437	RET - 437
AWL - 437	FAR - 437	JUD - 437	RIG - 433
BAD - 433	FAY \emptyset 437	JOC - 433	RIV - 433
BAK - 433	FEB - 437	KEY - 433	ROB - 437
BAY - 437	FEN - 437	KIP - 437	RUG - 437
BIL - 437	FIG - 433	LAD - 433	SEL - 433
BIT - 437	FOG - 437	LIL - 433	SEV - 433
BOW - 437	FOO - 433	LAS - 438	SID - 437
BUL - 437	GAB - 433	LEE - 433	TAP - 437
BUS - 437	GAL - 437	LO ^U W - 433	TEE - 433
BUT - 433	GAR - 433	MAB - 433	TIN - 437
CAP - 437	GAT - 433	MAY - 438	TOP - 433
COB - 433	GIL - 437	MAT - 433	TOS - 437
COP - 437	GIN - 438	MIL - 437	TRE - 437
CUE - 433	GUY - 437	NAG - 437	WIK - 437
CUT - 433	HAD - 433	NED - 433	WEST - 437
COT - 437	HAS - 437	NIG - 437	WHI - 433
DIP - 438	HER - 433	NOT - 433	WIN - (d) 433
DOE - 437	HIT - 433	ODD - 437	YUS - 437

3. The following hydrographic signals were used:

CHAN - Sht. 2152 - Vol. I, page 2.

G - SHORELINE AND TOPOGRAPHY:

The shoreline on the boat sheet was transferred from air photo manuscripts RS-433, RS-437 and RS-438 which cover this area. The air photos were taken recently and the shoreline on the manuscripts is correct. All of the topographic signals were radial plotted from the air photos on the manuscripts and then transferred to the boat sheet directly.

It was not practical 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, the sounding lines were run close to and parallel to the beach wherever possible.

H - SOUNDINGS:

Depths were measured with 808 type recording fathometer, handlead and pole. Bar checks were taken daily from the launch and skiff to depths where satisfactory results could be obtained. Fathometer corrections have been determined from the bar checks and entered in the sounding volumes by the field party.

A check on the boat sheets of the overlap between fathometer, handlead and pole shows no more than 1 foot difference. (*diffs. resolved; Review #2*)

I - CONTROL OF HYDROGRAPHY:

Sounding lines were controlled by three point fixes using natural objects or signals erected along the shoreline. Satisfactory results were obtained from using these signals.

J - ADEQUACY OF SURVEY:

The survey is considered complete, adequate for charting purposes and to supersede all prior surveys. Junctions with adjoining surveys are satisfactory, no holidays exist and depth curves can be adequately drawn at the junctions. ✓ *Review, pars. 7d. & 9.*

K - CROSSLINES:

Crosslines are in good agreement, the percentage is estimated at 10 percent. ✓

L-M - COMPARISON WITH PRIOR SURVEYS:

A comparison with Charts 494 and 1222 shows the following:

- charted in $\phi 37^{\circ}18.2'$, $\lambda 76^{\circ}22.68'$* *Review, par. 6.*
1. The pilings near Buoy "N2" at the mouth of Brown Bay were looked for and no evidence was found. ✓
 2. There is no indication that either the 8 foot or 11 foot soundings in the Severn River circled on the preliminary review are actually there. *Review, par. 5.*

In general there seems to be very little change between the present survey and the chart and previous surveys. ✓

N - DANGERS AND SHOALS:

No evidence of dangers or shoals were found in the channels. Crab and fish nets are spotted along the shorelines, but they are temporary. There are several spots that have a group of piles close together, these are marked on the boat sheet and recorded in the record book. They are not in the channels and don't constitute a hazard to navigation. No other important dangers or shoals not already shown on Charts 494 and 1222 were found in the area covered by this survey. ✓

CO - COAST PILOT INFORMATION:

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

P - AIDS TO NAVIGATION: (*See Processing Office List*)

Sextant fixes were obtained at all floating aids. Positions of fixed aids were obtained by air photo processes.

1. Southwest Branch Buoy 1 (Lat. $37^{\circ}18.95'$; Long. $76^{\circ}26.04'$) in 12 feet of water.

Southwest Branch
2. ~~Stump Point~~ Buoy 2 (Lat. $37^{\circ}18.76'$; Long. $76^{\circ}26.17'$) in 14 feet of water.

3. Cod Point Buoy 5 (Lat. $37^{\circ}19.40'$; Long. $76^{\circ}26.92'$) in 14 feet of water.

Q - LANDMARKS FOR CHARTS:

No new landmarks for charts are recommended for the area covered by this survey.

R - GEOGRAPHIC NAMES:

Geographic names shown on Charts 494 and 1222 for this area are adequate and no additional names are recommended.

U-Y - MISCELLANEOUS:

In featureless shoal areas, soundings were spaced every 30 seconds apart on the boat sheet. Intermediate soundings were plotted only when needed to define underwater features.

Z - TABULATION OF APPLICABLE DATA:

The Coast Pilot Report has been forwarded to the Washington Office.
A list of signals is attached in Volume I of the sounding records. A
tabulation of other data is attached.

Respectfully submitted,

Robert M. Borst

Robert M. Borst,
Ensign, USC&GS,
Ship COWIE.

Approved and forwarded:

J. H. Brittain
J. H. Brittain,
Comdr., USC&GS,
Comdg. Ship COWIE.

STATISTICSLAUNCH NO. 102:

<u>VOL. NO.</u>	<u>DAY</u>	<u>DATE</u>	<u>NO. OF POSITIONS</u>	<u>STAT. MILES</u>
I	a	7/15	31	5.8
I	b	7/16	26	5.1
I	c	7/17	20	3.9
I	d	7/18	11	2.3
I	e	7/25	16	2.8
I	f	7/30	11	2.5
I & II	g	8/5	123	23.3
II	h	8/15	83	16.5
II	j	8/18	116	24.2
II & III	k	8/19	<u>126</u>	<u>24.7</u>
TOTAL:			563	111.1

SKIFF NO. 737:

IV	a	7/10	148	25.4
IV	b	7/11	53	11.0
IV	c	7/29	33	7.1
IV & V	d	7/31	207	33.9
V & VI	e	8/6	157	24.7
VI	f	8/7	186	28.6
VI & VII	g	8/12	176	26.8
VI & VIII	h	8/13	180	25.4
VIII	j	8/14	<u>71</u>	<u>10.3</u>
TOTAL:			1211	193.2
GRAND TOTALS:			1774	304.3

TOTAL AREA: 12.0 Sq. Miles.

T I D E - N O T E

A portable automatic tide gage at Cod Point, Severn River Lat. $37^{\circ}19'25''$; Long. $76^{\circ}27'36''$; was used for obtaining tide reducers for most of this survey. The tide reducers for 10 and 11 July were obtained from the standard gage at Gloucester Point. Lat. $37^{\circ}14'46''$; Long. $76^{\circ}30'00''$) and from 15 July through 18 July were taken from the portable automatic gage at Mobjack, East River (Lat. $37^{\circ}22'27''$; Long. $76^{\circ}20'45''$). Heights of MLW for Cod Point was 1.2 feet above zero of the tide staff, and for East River 4.6 feet above zero of staff. Gloucester Point gage heights were furnished by the Washington Office.

LEADLINE CORRECTIONSSKIFF NO. 737:"b" day - 11 July 1952:

0.0 to 12.0 ft.

~~0.2~~ to ---"c" day - 29 July 1952:

0.0 to 10 ft.

~~0.2~~ to 17 ft.~~0.4~~ to ----

FLOATING AIDS TO NAVIGATION
H-7955

BUOY	POSITION		LONG.	METERS	DEPTH	POS. NO.	DATE
	LAT.	METERS					
Southwest Branch Buoy 1	37-18	1780	76-26	41	12'	84e	8/6/52
Southwest Branch Buoy 2	37-18	1407	76-26	227	14'	83e	8/6/52
Cod Point Buoy 5	37-19	727	76-26	1363	14'	139f	8/7/52
Spar Buoy 95N	37-19	150	76-20	1097	18 $\frac{1}{2}$ '	1g	8/5/52

LIST OF SIGNALS
H-7955

TRIANGULATION STATIONS

ARC	ARCHIE (V.F.C.), 1930-44
BRO	BROAD (V.F.C.), 1930-44
BUC	BUCK (V.F.C.), 1930-44
CED	CEDAR (V.F.C.), 1930-44
COC	COCKLIN (V.F.C.), 1930-44
COD	COD (V.F.C.), 1930-44
CHO	SCHOOL (V.F.C.), 1930-44
HEY	HEYWARD (V.F.C.), 1930-44
MAN	MANSE (V.F.C.), 1930-44
MAR	MARSHALL (V.F.C.), 1930-44
MUD	MUD (V.F.C.), 1930-44
PER	PERRIN (V.F.C.), 1930-44
ROU	ROUSE (V.F.C.), 1930-44
STU	STUMP (V.F.C.), 1930-44
THO	THORN (V.F.C.), 1930-44
VAU	VAUGHN (V.F.C.), 1930-44
YAN	BRYAN (V.F.C.), 1930-44

DESCRIBED TOPOGRAPHIC STATIONS

WEST WEST, 1944

TOPOGRAPHIC STATIONS

SOURCE RS-433												
All	Ant	Ard	Bad	Bak	Cob	Cue	Cut	Dud	Due	Ely	Ern	Fig
Foo	Gab	Gar	Gat	Had	Her	Hit	Ida	Ide	Jay	Joc	Key	Lad
Lee	Lou	Mab	Mat	Ned	Not	Pea	Peb	Red	Rig	Riv	Sef	Sev
Tee	Top	Whi	Win ^(d)									

SOURCE RS-437												
Abe	Act	Add	Awl	Bay	Bil	Bit	Bow	Bul	Bus	But	Cop	Got
Doe	Ear	Egg	Eve	Far	Fay	Feb	Fen	Fog	Gal	Gil	Guy	Has
Hoe	Ire	Jew	Jud	Kip	Lil	Mil	Nag	Nig	Odd	Rem	Ret	Rob
Rug	Sid	Tap	Tin	Tos	Tre	Wik	Yus					

SOURCE RS-438						
Ale	Dip	Gin	Jack	Las	May	Put

HYDROGRAPHIC SIGNALS

Chan Co-2152 - Vol. 1, page 2

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-7955 (Field No. Co-1452)

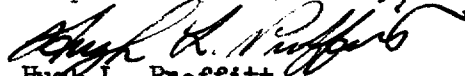
TOPOGRAPHY

A small island shown at Lat. 37-16.50, Long. 76-20.93 and one at Lat. 37-18.29, Long. 76-27.82 are probably clumps of grass as the sounding lines pass directly over both of them.

SOUNDINGS

In places where fathometer and handlead soundings overlap, the fathometer soundings were always given precedence. The handlead soundings usually averaged about one foot deeper.

Respectfully submitted,


Hugh L. Proffitt
Cartographer.

Norfolk, Va.
28 July 1953

Approved & Forwarded:


Earle A. Deily
Supervisor, S.E. District.

TIDE NOTE FOR HYDROGRAPHIC SHEET

18 August 1953

~~DIVISION OF COASTAL SURVEYS~~

Division of Charts: R. H. Carstens *CHD*

Plane of reference approved in
8 volumes of sounding records for

HYDROGRAPHIC SHEET 7955

Locality Mobjack Bay, Chesapeake Bay, Virginia

Chief of Party: J. H. Brittain in 1952

Plane of reference is mean low water, reading

0.9 ft. on tide staff at Gloucester Point

34.1 ft. below B. M. 4 (1918)

1.2 ft. on tide staff at Cod Point, Severn River

7.1 ft. below B. M. 1 (1952)

4.6 ft. on tide staff at Mobjack, Mobjack Bay

5.0 ft. below B. M. 1 (1952)

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

Gloucester Point = 2.4 feet

Cod Point, Severn River = 2.5 feet

Mobjack, Mobjack Bay = 2.4 feet

Condition of records satisfactory except as noted below:

E. C. McKay

Section of Tides

Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES

Survey No. H-7955

Name on Survey	Source of Name									
	A	B	C	D	E	F	G	H	K	
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List		
<u>Virginia</u> ✓									B.G.N.	1
<u>Chesapeake Bay</u> ✓									v	2
<u>Severn River</u> ✓										3
<u>Mobjack Bay</u> ✓									B.G.N.	4
<u>Guinea Marshes</u> ✓										5
<u>Monday Creek</u> ✓										6
<u>Browns Bay</u> ✓									B.G.N.	7
<u>Bush Point</u> ✓										8
<u>Long Creek</u> ✓										9
<u>King Creek</u> ✓										10
<u>Glass Bay</u> ✓										11
<u>Southwest Branch</u> ✓										12
<u>Stump Point</u> ✓										13
<u>Northwest Branch</u> ✓										14
<u>Vaughans Creek</u> ✓										15
<u>Cod Point</u> ✓										15
<u>Bryan's Bay</u> ✓										16
<u>Sterling Creek</u> ✓										17
<u>Free School Creek</u> ✓										18
<u>Whittaker Creek</u> ✓										19
<u>Canoes Bay</u> ✓										20
<u>Tow Stake Point</u> ✓										21
										22
<u>Tide stations off sheet:</u>										23
<u>Gloucester Point</u>										24
<u>Mobjack East River</u>										25
										26
										27
										28

(Tide station)
Bryan (L.H. 6-22-57)

Names underlined in red are approved. Placement of names approved for this sheet is indicated on attached section of U.S.G.S. "Achilles" quadrangle. 8-14-57 L.H. 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7955....

Records accompanying survey:

- Boat sheets *1*...; sounding vols. *8*....; wire drag vols.;
- bomb vols.; graphic recorder rolls *5* *Env.*;
- special reports, etc. *1* *Smooth Sheet*; *1* *Descriptive Report*;
-

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

	Prelim	Partial
Number of positions on sheet	- ..1774	
Number of positions checked	- 12141	6
Number of positions revised	- 200	0
Number of soundings revised (refers to depth only)	50 600	6
Number of soundings erroneously spaced	- 023	8
Number of signals erroneously plotted or transferred	0-0✓	0
Topographic details	Time - ✓	4
Junctions (inspection only)	Time- 1✓	0
Verification of soundings from graphic record	Time 28	1/2
Prelim. Verif. by T.A. Dinsmore	48 hrs	2 June 1954
Verification by <i>G.B. Lehman</i>	Total time 141	Date 9/2/57
<i>Partial Verification by J.E. Gearhart</i>	20 hrs	2-8-55
<i>Verification (Curve Junctions)</i>	65 hrs	
Reviewed by... <i>J.A. Dinsmore</i>	Time 33	Date 8 June 1954
<i>Addendum to Review</i>	<i>Boothman</i> 24 hrs.	

DIVISION OF CHARTS
REVIEW SECTION - NAUTICAL CHART BRANCH
REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7955

FIELD NO. CO-1452

Virginia, Chesapeake Bay, Severn River

Surveyed - July - Aug. 1952

Scale 1:10,000

Project No. CS-350

Soundings:

Control:

808 Fathometer
Hand lead
Pole

Sextant fixes on
shore signals

Chief of Party - J. H. Brittain
Surveyed by - R. M. Borst and R. A. Parker
Protracted by - A. K. Schugeld
Soundings plotted by - A. K. Schugeld
Preliminary Verification by - T. A. Dinsmore
Verified and inked by - J. E. Gearhart & J. C. Chambers.
Reviewed by - T. A. Dinsmore 8 June 1954
Inspected by - R. H. Carstens

1. Shoreline and Signals

The shoreline originates with the unreviewed manuscripts of air-photographic revision survey sheets RS-433, 437 and 438 of 1951.

The origin of the signals is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in good agreement. Minor differences of 1 ft. between pole and fathometer soundings were resolved in the smooth plotting.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated. The low-water curve was determined where practicable.

The bottom is generally smooth and undulating except where abrupt slopes occur at the banks of the natural channels.

Shoals extending off points constrict the channels in many localities. The maximum depth in the Severn River is 26 ft. which occurs in the vicinity of lat. $37^{\circ}19.40'$, long. $76^{\circ}24.15'$. and 29 ft. lat. $37^{\circ}19.02'$ Long $76^{\circ}26.00'$ at the confluence of Northwest Branch and South west Branch. L.S.S.

4. Junctions with Contemporary Surveys

The present survey junctions adequately with the following adjoining surveys:

H-7957 (1952) on the north
 H-7958 (1952) on the northeast
 H-7175 (1947) on the east (between the surveyed areas on the present survey.)
 H-7960 (1952) on the southeast
 H-7953 (1952) on the south

Of the above and present surveys, H-7175 is the only survey completely verified. The transfer of junctional soundings is deferred pending the complete verification of the surveys at which time a further inspection of the junctions will be made.

5. Comparison with Prior Surveys

H-446 (1854) 1:40,000	H-2870 (1907) 1:20,000
H-984 (1868) 1:20,000	H-3288 (1911) 1:20,000

These prior surveys cover the area of the present survey. A comparison of the prior and present depths reveals only minor differences of 1-2 ft. Generally, the prior and present depths are in remarkably close agreement. However, the prior surveys did not cover the inshore areas nor develop the creek channels.

The following discrepancies are noted:

The 11-ft. sounding charted in lat. $37^{\circ}18.85'$, long. $76^{\circ}25.05'$, from H-3288 falls in depths of 15-17 ft. on both the prior and present surveys. No shoal indications are revealed by the present development. The unsupported 11-ft. sounding was probably recorded 1 fm. too shoal and should be disregarded.

The 8-ft. sounding charted in lat. $37^{\circ}19.12'$, long. $76^{\circ}24.07'$, from H-3288 falls in 16-ft. depths on both the prior and present surveys. The position of this sounding and consecutive soundings on line indicate that the plotting is in error. The prior sounding should be disregarded.

With the retention of a few soundings and bottom characteristics from the prior surveys, the present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Chart 494 (Reconstr. Drawing of 1954)

A. Hydrography

Charted hydrography originates with the present survey prior to verification and review. The piling charted in lat. $37^{\circ}18.20'$, long. $76^{\circ}22.68'$, from Chart Letter 3 (1947) should be deleted from the chart. The piling fall in the area covered by H-7175 (1947). As they were not investigated on that survey the piling were retained on the chart. During the present survey, a search for the piling was made and no evidence of their existence was found. The piling are now considered to be nonexistent.

No other discrepancies are noted at this time. After the present survey has been completely verified, a further comparison with the chart will be made.

B. Aids to Navigation

Buoy C-5 in lat. $37^{\circ}19.40'$, long. $76^{\circ}26.93'$, on the present survey is charted about 150 meters west of the survey position. The charted position more adequately marks the features intended.

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

7. Condition of Survey

- a. The sounding records and Descriptive Report are complete and comprehensive.
- b. The preliminary verification and inspection indicates that the smooth plotting was generally accurate.
- c. The preliminary verification of the survey was generally confined to sounding-line crossings and unnatural bottom configuration. A pattern of sounding lines covering the general area have been verified and inked. Completion of the verification and inking is deferred until some future date at which time the shoreline will be checked and a further inspection of the curves will be made.

d. Development is considered incomplete in the following localities:

- (1) In lat. $37^{\circ}19.47'$, long. $76^{\circ}27.50'$, an additional line of soundings would furnish adequate coverage in this cove.
- (2) In lat. $37^{\circ}18.70'$, long. $76^{\circ}26.87'$, additional soundings would determine the extent of the shoal area extending off the point in this vicinity.
- (3) In lat. $37^{\circ}19.85'$, long. $76^{\circ}27.05'$, the single line of soundings does not develop the creek turning basin where two piers extend from 30 to 50 meters from shore.
- (4) In lat. $37^{\circ}16.25'$, long. $76^{\circ}23.20'$, it appears that the creek channel lies in the unsounded area west of the $3\frac{1}{2}$ -ft. sounding.

e. Several pier ruins were not adequately investigated and disposed of by the hydrographer.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions except as noted in paragraph 7 d and e.

9. Additional Field Work

At an opportune time, additional work to complete the coverage in the areas described in paragraph 7 d, would be desirable. Except as noted, the survey is considered basic for the area covered.

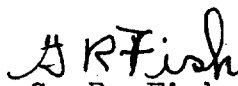
Examined and approved



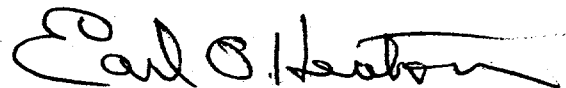
H. R. Edmonston
Chief, Nautical Chart Branch



H. Arnold Karo
Chief, Division of Charts



G. R. Fish
Chief, Section of Hydrography



Earl O. Heaton
Chief, Division of Coastal Surveys

ADDENDUM TO REVIEW

H-7955 (1952)

Verified by - J. C. Chambers and J. E. Gearhart
Reviewed by - L. S. Straw 5/26/58
Inspected by - R. H. Carstens

The verification and inking of this survey is now complete.

Junctions with Contemporary Surveys

Junctions with all adjoining contemporary surveys have been completed and are adequate.

Comparison with Chart 494 (latest print date 7/8/57)

A. Hydrography

The charted hydrography originates with the present survey applied before verification and review. The depth curves as charted are generally in good agreement with the present survey except for the 18 foot curve in approximate lat. $37^{\circ} 19.8'$ and long. $76^{\circ} 23.0'$ where soundings plotted to one half foot have been utilized to more accurately delineate the 18 foot curve.

There are numerous piles, submerged piles, piers and obstructions, generally situated close inshore, charted principally from T-8327 (1942-46). They are not shown on the revision topographic surveys of 1951-52 or the present hydrographic survey. The most outstanding of these are: (1) the wrecks in lat. $37^{\circ} 19.71'$ long. $76^{\circ} 28.53'$; lat. $37^{\circ} 19.23'$ long. $76^{\circ} 28.25'$; lat. $37^{\circ} 18.28'$ long. $76^{\circ} 26.2'$; (2) the wreck in lat. $37^{\circ} 18.4'$ long. $76^{\circ} 25.85'$ is charted too far west apparently due to the size of the symbol. (3) the platform in lat. $37^{\circ} 19.73'$ long. $76^{\circ} 26.55'$ and the duck blind in lat. $37^{\circ} 19.14'$ long. $76^{\circ} 25.35'$. Except for the pier in lat. $37^{\circ} 18.75'$ long. $76^{\circ} 26.48'$ the above information may be retained on the chart until definitely disproved.

The pile symbol charted in lat. $37^{\circ} 16.2'$ long. $76^{\circ} 21.98'$ should be replaced by an irregular shape to represent the island in this location. (Revision survey No. 438-1951-52).

The two small islands charted in lat. $37^{\circ} 15.95'$ long. $76^{\circ} 21.6'$ should be expunged from the chart and the piles originating with H-7953 (1952) shown on the present survey in brown should be charted.

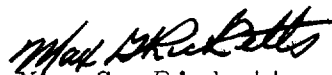
B. Aids to Navigation

Since the time of the original review the buoys C "1", N "2", and C "5", lat. $37^{\circ} 18.95'$ long. $76^{\circ} 26.03'$; lat. $37^{\circ} 18.76'$ long. $76^{\circ} 26.15'$ and lat. $37^{\circ} 19.4'$ long. $76^{\circ} 26.92'$ respectively, have been replaced with day beacons which adequately mark the features intended.

Condition of the Survey

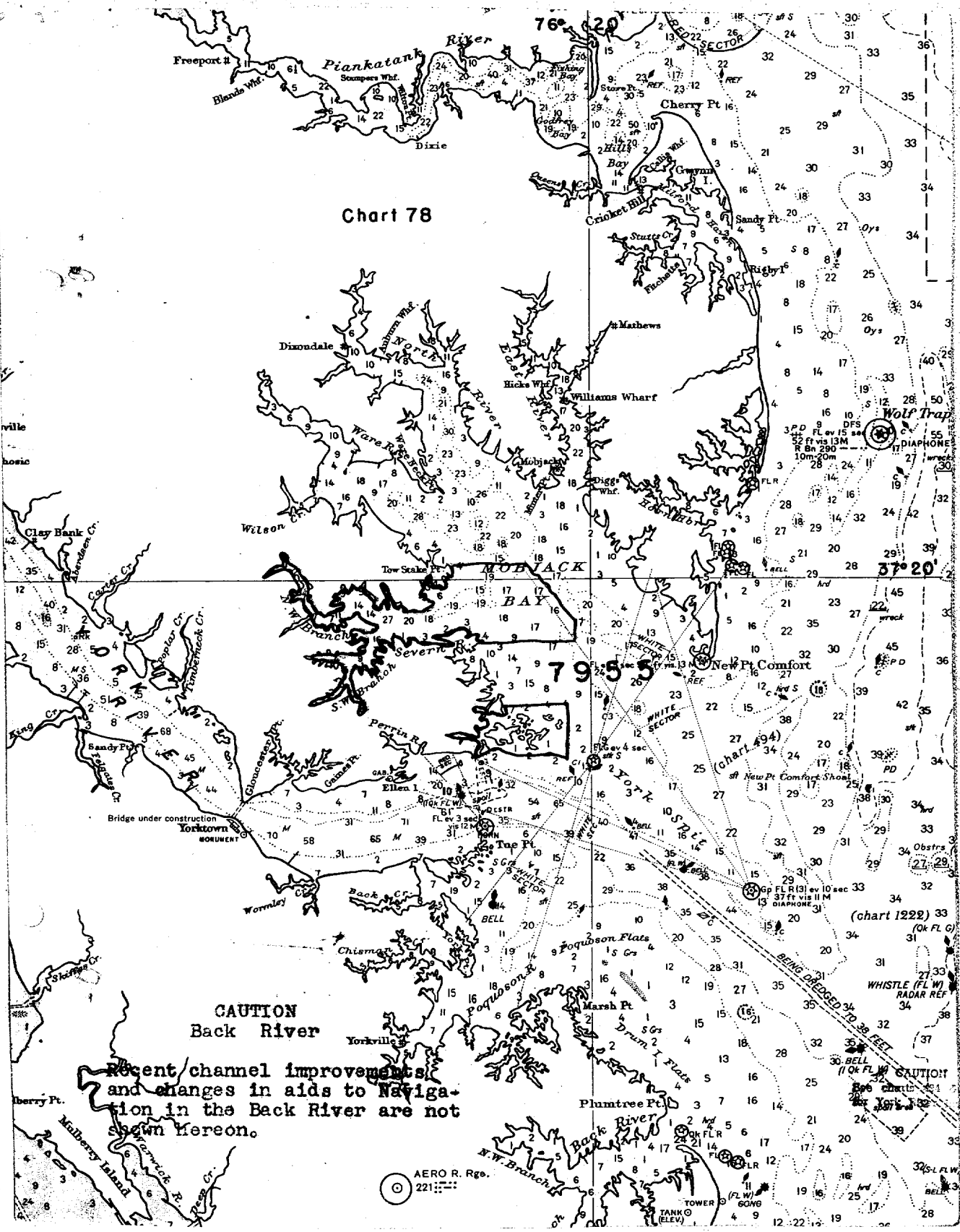
The condition of the survey is fully covered in paragraph 7 of the original review. No additional comment is necessary.

Approved:



Max G. Ricketts
Chief, Nautical Chart Branch

Chart 78



CAUTION
Back River
Recent channel improvements
and changes in aids to Navigation
in the Back River are not
shown hereon.

AERO R. Rge.
221:11:11

(chart 1222) 33

WHISTLE (FL W)
RADAR REF

CAUTION
Bell

345-LFW

