

8188

Diag. Cht. No. 78-3.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. CO-1554 Office No. H-8138

LOCALITY

State Virginia

General locality Chesapeake Bay

Locality Fleets Bay and Vicinity

1945

CHIEF OF PARTY

J. C. Bull

LIBRARY & ARCHIVES

DATE February 12, 1957

8188

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-8188

Field No. Co-1454

State VIRGINIA

General locality CHESAPEAKE BAY

Locality FLEETS BAY AND VICINITY

Scale 1:10,000 Date of survey 4 Aug. to 28 Sept. 1954

Instructions dated 5 Feb. 1953 & 25 Feb. 1954

Vessel COWIE

Chief of party JOHN C. BULL

Surveyed by A. J. RAMEY, J. M. OGILVIE & P. HERTELENDY

Soundings taken by ~~XXXXXX~~ XXXXXX graphic recorder, ~~XXXXXX~~ POLE

Fathograms scaled by SHIP'S PERSONNEL

Fathograms checked by SHIP'S PERSONNEL

Protracted by G. O. WIMBRO

Soundings penciled by A. G. ATWILL

Soundings in ~~XXXXXX~~ feet at MLW ~~XXXXXX~~ AND ARE TRUE DEPTHS

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

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DESCRIPTIVE REPORT
TO ACCOMPANY

HYDROGRAPHIC SURVEY H-8188,

FIELD NO. CO-1454

CHESAPEAKE BAY

FLEETS BAY & VICINITY

SHIP COWIE

SCALE 1:10,000

COMDR. J. C. BULL
COMDG.

A - PROJECT:

Project CS-287, Supplemental Instructions dated 5 Feb. 1953 and Supplemental Instructions dated 25 Feb. 1954.

B - SURVEY LIMITS AND DATES:

This survey is of Fleets Bay and tributaries and has limits of lat. $37^{\circ}38.40'$, to lat. $37^{\circ}42.40'$ and eastward to long. $76^{\circ}16.50'$. It makes junction with CO-1553_{(H-8082(1953-54))} to the south. CO-1554_{(H-8189(1954))} to the north, and CO-2154_{(H-8190(1954-55))} to the east.

The survey began on 4 Aug. 1954 and concluded on 28 Sept. 1954.

C - VESSELS AND EQUIPMENT:

Launch No. 102, using 808 type fathometer no. 118-S was used in general depths of 5 ft. and upward to a junction with the Ship's work. Skiff 749, using 808 type fathometer 120-S and sounding pole was used in shoal areas along the shore, creeks and inlets. The launch and skiff operated from the Ship COWIE.

D - TIDE AND CURRENT STATIONS:

A portable automatic tide gage was installed and maintained on a large fish plant wharf at Ocran, Dymer Creek. Tide gage records and soundings are on Eastern Standard Time. No current stations were occupied within the limits of this survey.

E - SMOOTH SHEET:

The smooth sheet ~~will be~~^{was} constructed and plotted by the Norfolk Processing Office.

F - CONTROL STATIONS: TRIANGULATION: *See also Norfolk list.*

BUFF - Bluff 3, 1944	FLEE - Fleets Bay Ent. Lt. #1, 1954
DIAN - Old Tom's Light, 1944,	HAND - Dyer Cr. Ent. Lt., 1954
FIAT - Flats Light, 1954	REEK - Indian Cr. Ent. Lt. #2, 1954
	Ymer - Flats Lt. No. 6, 1954.

TOPOGRAPHIC: - MANUSCRIPT NO. T-11055: -

AMP	DOL	JOE	NIX	RIG	UNI	YUM
AMY	DUB	JOY	NOW	RIP	USE	
AVE	EIG	KAL	ODD	SHE	VAN	
BED	EMO	LAP	OHM	SIP	VAT	
BIG	ERG	LEO	ORA	SIS	VIX	
BOB	EVE	LIG	PIE	TAR	WE	
BUFF	FOX	MAX	PIX	TEN	WHO	
CAM	FEB	MOO	POI	THY	WHY	
CUE	HIM	NEO	QAK	TOM	YAW	
DIX	IRE	NIN	REV	TOY	YEA	

CONTROL STATIONS; TOPOGRAPHIC; CONT.: T-11057

ACE	CAR	EBB	GAD	ICE	KEY	NAY	PUT
ACT	CAT	EEK	GAG	IDA	KID	NED	QUO
ADD	CEM	EEL	GAL	INK	KIN	NOD	RAG
ADO	COD	EGG	GAM	ION	KIP	NUX	RAM
AGO	CON	EGO	GAS	IRK	LAB	OAK	RAT
ANT	COP	EST	GIN	ITS	IAD	OBI	REEK
AZO	COW	EVA	GUM	IVY	LAM	ODD	RUE
BAG	CUR	FAG	GUY	JAM	LAX	OFF	RUM
BAH	DAY	FAR	HAND	JAP	IAY	OUT	SAD
BAN	DEB	FED	HAG	JAR	LIZ	OWL	SAG
BAT	DEW	FEN	HAT	JAW	LUX	PAD	SAL
BEN	DIAN	FEZ	HER	JAY	MAG	PAL	SAM
BIB	DIF	FIG	HEW	JIP	MAN	PAR	SAX
BIT	DIM	FIN	HEX	JUG	MAR	PAT	SET
BOA	DOG	FLAT	HID	JUT	MAW	PAW	SEX
BUT	DUK	FLEE	HIS	KED	MUG	PEG	SIX
CAD	EAR	FUN	HIT	KEN	MUM	PEP	SUB
TAN CAR	EAT	TAP	HUT	TRY	NAT	POL	SUE
VAL	VET	VEX	VIM	WAD	WAR	WAS	TUB
WAX	WIM	WIT	YAK	YAM	YET	ZAG	ZIG
						ZOO	

Note: Signal LAX appears twice on this sheet.

G - SHORELINE AND TOPOGRAPHY:

The shoreline of the boat sheet was transferred from air-photo^{revised} manuscripts T-11055 and T-11057. The shoreline was defined by soundings where the range of tide permitted.

G - SHORELINE AND TOPOGRAPHY: (CONT.)

The shoreline of the following areas have corrections as shown in red ink on the boat sheet:

- 1 - lat. $37^{\circ}40.63'$, long. $76^{\circ}21.68'$ ✓ 3 - lat. $37^{\circ}40.64'$, long. $76^{\circ}21.25'$ ✓
 2 - lat. $37^{\circ}42.60'$, long. $76^{\circ}20.94'$ ✓ 4 - lat. $37^{\circ}39.90'$, long. $76^{\circ}21.00'$ ✓

H - SOUNDINGS:

Depths were taken with the 808 type fathometer, hand lead and sounding pole. Bar checks were used for obtaining fathometer corrections. Junctions of the Ship, Launch and Skiff are in good agreement and depth curves can be adequately drawn.

I - CONTROL OF HYDROGRAPHY:

Sounding lines were controlled by three-point fixes using natural objects or signals on shore.

J - ADEQUACY OF SURVEY:

This survey is adequate and complete and should supersede all prior surveys.

K - CROSSLINES:

Crosslines are in good agreement and comprise approximately eight per cent of the principal system of lines.

L-M - COMPARISON WITH PRIOR SURVEYS AND CHARTS: SKIFF NO. 749: ✓

- 1 - Item 14 (Preliminary Review) A large wreck hull does exist (submerged except for the bow timber) as shown on T-8343. At lat. $37^{\circ}40.43'$, long. $76^{\circ}21.06'$, is the SW end of the wreck which is bare 4.0 ft. in 10 ft. of water. At lat. $37^{\circ}40.44'$, long. $76^{\circ}21.06'$, is the NE end of the wreck is submerged 3 ft. in 11 ft. of water. Pos. 134-n & 135-n, skiff 749. *See Par. 6A2 Review.*

L-M - COMPARISON WITH PRIOR SURVEYS AND CHARTS; (CONT.)

2 - Item 15 (Preliminary Review) The controlling depth entering ^{Tabbs} ~~this~~ Creek should be changed from the previous 3 ft. to a present 2 ft. No power ^{Par. 5 Review} boats are kept up this creek and the only traffic is small row boats.

3 - The bridge at $37^{\circ}38.02'$, $76^{\circ}18.19'$, has a vertical clearance of 4.0 MHW and a horizontal clearance of 15.0 ft.

4 - The bridge at lat. $37^{\circ}41.70'$, long. $76^{\circ}19.20'$, has a vertical clearance of 5.0 ^{MHW} ft. and a horizontal clearance of 60.0 ft.

5 - Positions 1-h, 2-h, 3-h check location of Indian Creek Lights 6, 10 & 12. This was done because they were rebuilt since aerial photograph was made.

(See Form 567, Nonfloating Aids to Navigation).

6 - At lat. $37^{\circ}41.74'$, long. $76^{\circ}19.00'$, are two middle grounds, bare at low water, pos. 52-n, skiff 749.

LAUNCH NO. 102 and SKIFF NO. 749:

A comparison with Chart 534 (print date 2/9/53) shows good agreement between the old and new surveys, maximum discrepancies being about 1 to 3 ft.

N - DANGERS AND SHOALS:

1 - At lat. $37^{\circ}38.16'$, long. $76^{\circ}21.80'$ ^{59'} is a wreck ^(5' M.L.W.) on shoreline, pos. 50-a, skiff no. 749.

2 - At lat. $37^{\circ}38.15'$, long. $76^{\circ}21.30'$ ^(10' M.L.W.) is a wreck in middle of gut, pos. 59-a, skiff 749.

3 - At lat. $37^{\circ}38.14'$, long. $76^{\circ}20.50'$ telephone and power lines cross the creek 20 ft. ^(M.H.W.) overhead, see boat sheet.

4 - At lat. $37^{\circ}37.89'$, long. $76^{\circ}20.67'$ is a 10 inch pile in 7 ^(at tide) ft. of water, bare ^{7'} ~~6.5~~ ft., ^(NLW) pos. 6-b, pos. 749.

5 - Lat. $37^{\circ}38.07'$, long. $76^{\circ}20.67'$ is a pile in 6.5 ft. of water and bare 6.5 ft. ^(-0.1 tide) MLW.

6 - At lat. $37^{\circ}38.16'$, long. $76^{\circ}18.75'$ is a wreck in 2.5 ft. of water, ^(-1.2 tide) bare 2 ft. MLW.

7 - Position 86-c (skiff 749) is the offshore end of a fish trap, East of signal SAX.

8 - Position 25-d (skiff 749) is the offshore end of a fish trap, West of signal VAL.

9 - Position 108-e (skiff 749) is the offshore end of a fishtrap.

10 - At lat. $37^{\circ}40.61'$, long. $76^{\circ}18.88'$ is a creosote pile in 14 ft. of water ^(-0.5 tide) and bare 4.5 ft. ^(5' MLW) pos. 171 e (green)

11 - At lat. $37^{\circ}41.86'$, long. $76^{\circ}19.70'$ is a wreck in 3 ft. of water, ^(-0.5 tide) bare 2 ft. ^{MLW} pos. 6-g, skiff 749.

12 - At lat. $37^{\circ}41.07'$, long. $76^{\circ}19.04'$ is a partially sunken log in 2.0 ft. of water, bare 2 ft. ^(3' MLW) pos. 88-g, skiff 749.

13 - The area north of lat. $37^{\circ}42.89'$, long. $76^{\circ}21.08'$, (N of signal CUE), is foul with stumps and snags. (On insert), pos. 25-h, skiff 749.

14 - The area west of lat. $37^{\circ}41.57'$, long. $76^{\circ}21.77'$ is foul with logs, stumps and snags, pos. 121-h, skiff 749.

15 - At lat. $37^{\circ}41.98'$, long. $76^{\circ}21.08'$ is the offshore end of an old burned pier. Piles are in 8 ft. of water and bare 2 ft. ^(7' MLW) ^(-1.2 tide) pos. 78-h, skiff 749.

16 - At lat. $37^{\circ}41.28'$, long. $76^{\circ}19.97'$ is a submerged obstruction in 3 ft. of water, submerged 0.5 ft. ^(Awaah of MLW) pos. 61-l, skiff 749.

17 - In the vicinity of signal GUM and signal HIT, lat. $37^{\circ}40.50'$, long. $76^{\circ}19.45'$, the shoreline is foul with stumps and snags, pos. 9-m, 749.

18 - Above lat. $37^{\circ}41.08'$, long. $76^{\circ}21.98'$ the gut is foul with logs and stumps.

N - DANGERS AND SHOALS; (CONT.)

19 - In the vicinity of lat. $37^{\circ}40.47'$, long. $76^{\circ}21.35'$ are numerous shell piles slightly below the surface. A sign is here warning of the piles. The 2 ft. sounding obtained in 8 - 9 ft. of water is one of these piles.

20 - At lat. $37^{\circ}39.97'$, long. $76^{\circ}21.35'$ is a wrecked boat in 3.5 ft. of water, bare 2.5 ft., pos. 168-p, skiff 749. ^(-1.2 tide)

21 - Between lat. $37^{\circ}39.89'$, long. $76^{\circ}20.62'$, and lat. $37^{\circ}39.97'$, long. $76^{\circ}20.55'$ is a row of piles some of which are submerged, the others being bare about 10 ft., pos. 9-s - 16-s, skiff 749. ^(3 ft. M.L.W.)

O - COAST PILOT INFORMATION:

The Coast Pilot Report was forwarded to the Washington Office on 3 Nov. 1954. Additional information is as follows:

- 1 - At lat. $37^{\circ}41.97'$, long. $76^{\circ}21.15'$ is a small marine railway, cap. of 40 ft., 25 tons and 5 ft. draft. Owned by Chesapeake Boat Basin, Kilmar-nock, Va., General boat repairs, pos. 107-h, skiff 749.
- 2 - At lat. $37^{\circ}49.99'$, long. $76^{\circ}21.16'$ is a small marine railway owned by J. D. Winegar of Whitestone, Va.. Capacity of about 40 ft., 30 tons, 6 ft. draft.
- 3 - See No. 2, (Item 15) under "Comparison with prior survey and charts".

P - AIDS TO NAVIGATION:

Form 567, Nonfloating Aids to Navigation, is being prepared as a separate report.

Floating Aids to Navigation, within the limits of this survey are as follows:

P - AIDS TO NAVIGATION; (CONT.): *See also Norfolk Processing Office list.*

1 - Clark Point Shoal Nun Buoy "2" - lat. $37^{\circ}37.90'$, long. $76^{\circ}19.50'$, in 9 ft. of water.

2 - Fleets Bay Spar Buoy "2" - lat. $37^{\circ}39.20'$, long. $76^{\circ}18.62'$, in ^{19'}~~21~~ ft. of water.

3 - Fleets Bay Entrance Lighted Bell Buoy "4" - lat. $37^{\circ}39.32'$, long. $76^{\circ}19.09'$, in ¹⁴~~16~~ ft. of water.

4 - Bluff Point Shoal Lighted Bell Buoy - lat. $37^{\circ}40.35'$, long. $76^{\circ}16.32'$, in 28 ft. of water.

Q - LANDMARKS FOR CHARTS:

No landmarks are recommended for the area of this survey.

R - GEOGRAPHIC NAMES:

Geographic names as shown on the charts of this area are adequate and no additional names are recommended.

U-Y - MISCELLANEOUS:

Fathometer corrections were obtained by averaging all bar checks for each survey vessel, the same fathometer being used throughout the season. An abstract of these corrections is included as part of this report.

Z - TABULATION OF APPLICABLE DATA:

A list of signals is attached to Vol. I of the sounding records.

A tabulation of other data is included as part of this report.

Respectfully submitted,

Albert J. Ramey
Albert J. Ramey, Lieut. (j.g.),

J. Morgan Ogilvie
J. Morgan Ogilvie, Ens., USN&GS.

Approved and forwarded: *3/25/55*

Don C. Jones
Comdg., Ship O W I E.

T I D E N O T E

A portable automatic tide gage at Ocran, Dymer Creek, lat. 37 39.86', long. 76 20.63', was used for obtaining tide reducers for the entire survey. No time or height corrections were applied to the observed tides. The hourly heights were scaled from the marigrams, and the tide curves were plotted by personnel of the SHIP COWIE

STATISTICS

LAUNCH NO. 102:

<u>DAY</u>	<u>DATE</u>	<u>VOL. NO.</u>	<u>STATUTE MILES</u>	<u>NO. OF POSITIONS</u>
A	8/11	I	2.1	13
b	8/12	I	2.3	15
c	8/19	I	4.7	30
d	8/20	I	2.5	13
e	8/24	I	5.9	38
f	8/25	I	2.8	12
g	8/26	I	21.7	92
g	8/26	II	5.1	76
h	9/1	II	2.1	14
j	9/2	II	23.7	158
j	9/2	III	12.2	78
k	9/3	III	16.2	113
l	9/8	III	12.9	81
l	9/8	IV	23.0	140
m	9/14	IV	22.3	138
m	9/14	V	11.7	79
n	9/15	V	14.0	99
p	9/22	V	16.9	104
p	9/22	VI	15.5	95
q	9/28	VI	27.6	176
TOTALS:			245.2	1466

SKIFF NO. 749:

a	8/4	VII	14.1	160
b	8/5	VII	11.0	126
c	8/6	VIII	9.2	87
d	8/10	VIII	23.0	189
e	8/11	IX	19.7	171
f	8/12	IX	12.3	146
g	8/17	X	14.0	138
h	8/18	X	11.0	124
j	8/19	XI	14.7	167
k	8/20	XI	6.7	62
l	8/24	XII	14.6	146
m	8/25	XII	12.9	153
n	8/26	XIII	15.2	167
p	9/1	XIII	14.1	150
p	9/1	XIV	1.5	39
q	9/2	XIV	10.7	136
r	9/3	XIV	5.5	69
s	9/8	XIV	4.1	72
s	9/8	XV	4.1	28
t	9/14	XV	19.9	175
u	9/15	XVI	11.7	119
v	9/22	XVI	17.4	172
w	9/28	XVII	6.0	59
TOTALS:			273.4	2834
GRAND TOTALS:			518.6	4300

AREA: 19.8 Square Statute Miles

FATHOMETER CORRECTIONS:

<u>LCH. 102</u>	<u>5'</u>	<u>10'</u>	<u>15'</u>	<u>20'</u>	<u>25'</u>	<u>30'</u>
a 8/11	+0.2	+0.2	+0.5	+0.5	+0.2	+0.3
b 8/12	0.0	+0.1	+0.5	+0.5	+0.2	+0.2
c 8/19	0.0	0.0	0.0	+0.3	+0.5	
d 8/20	0.0	+0.1	+0.5	+0.5	+0.2	+0.5
e 8/24	0.0	+0.5	+0.6	+0.5	+0.3	+0.5
f 8/25	0.0	0.0	+0.2	+0.6	+0.6	
g 8/26	0.0	+0.4	+0.3	+1.0	+0.8	+0.8
		+0.3	+0.8	+0.7	+0.8	+1.0
	0.0	+0.7	+1.0	+1.0	+1.0	+0.2
h 9/1	0.0	0.0	0.0	0.0	+0.1	+0.7
j 9/2	0.0	0.0	0.0	+0.2	+0.5	+1.0
k 9/3	0.0	0.0	+0.4	+0.4	+1.0	+1.0
l 9/8	0.0	+0.4	+0.6	+0.8	+1.0	+0.8
m 9/14	0.0	+0.3	+0.5	+0.5	+0.8	+0.7
p 9/22	0.0	0.0	+0.2	+0.2	+0.5	+0.5
q 9/28	0.0	0.0	+0.5	+0.7	+0.5	
AVERAGES:	0.0	+0.2	+0.4	+0.5	+0.6	+0.6

CORRECTIONS: 0.0 to 7.5 - 0.0
 8.0 to 12.5 - ~~+0.2~~
 13.0 to 19.0 - ~~+0.4~~
 19.5 to 30.0 - ~~+0.6~~

SKIFF NO. 749:

g 8/17	-0.05	0.0	0.0	0.0
j 8/19	+0.2	0.0	0.0	-0.05
k 8/20	+0.1	0.0	0.0	-0.15
l 8/24	+0.1	0.0	0.0	-0.1
m 8/25	0.0	0.0	0.0	0.0
n 8/26	-0.05	-0.15	-0.1	0.0
p 9/1	-0.05	0.0	-0.1	-0.2
q 9/2	-0.1	0.0	-0.15	-0.2
s 9/8	+0.1	0.0	0.0	0.0
t 9/14	+0.05	0.0	-0.05	-0.1
u 9/15	0.0	0.0	-0.1	-0.1
v 9/22	+0.2	0.0	-0.2	-0.1
w 9/28	+0.1	0.0	0.0	0.0
AVERAGES:	+0.05	0.0	-0.05	-0.08

CORRECTIONS: 0 to 25.0 - ~~+0.0~~
 25.0 - - - ~~-0.2~~

PROCESSING OFFICE
FLOATING AIDS TO NAVIGATION
H-8188

<u>BUOY</u>	<u>LAT.</u>	<u>LONG.</u>	<u>DEPTH</u>	<u>POS. NO.</u>	<u>DATE</u>
Bluff Pt. Shoal Ltd. Bell Buoy	37-40.35 ✓	76-16.3 ² 3 ✓	28' ✓	28j	9- 2-54 ✓
Fleets Bay Buoy 2	37-39.2 ⁰ 1 ✓	76-18.62 ✓	19' ✓	88e	8-11-54 ✓
Fleets Bay Entr. Ltd. Bell Buoy 4	37-39.3 ² 3 ✓	76-19.0 ⁸ 8 ✓	14' ✓	89e	8-11-54 ✓
Clark Pt. Shoal Buoy 2	37-37.90 ✓	76-19.50 ✓	9' ✓	126b	8- 5-54 ✓

PROCESSING OFFICE
LIST OF SIGNALS
H-8188

TRIANGULATION STATIONS

BUFF	BLUFF 3, 1944-52
DIAN	OLD TOMS LIGHT, 1944
FLAT	Ref. 16 FLATS LIGHT, 1954 ^{(37°39'42.629" (1314.3m) 76°14'38.930" (954.2m)}
FLÉE	FLEETS BAY ENTR. LIGHT NO. 1, 1954
HAND	DYMER CREEK ENTR. LIGHT, 1954
REEK	INDIAN CREEK ENTR. LIGHT NO. 2, 1954
YMER	FLATS LIGHT NO. 6, 1954

TOPOGRAPHIC STATIONS

SOURCE T-11055

Amp	Amy	Are	Bed	Big	Bob	Cam	Cue	Dix	Dol
Dub	Eig	Emo	Erg	Ere	Fox	Fub	Him	Ire	Joe
Joy	Kal	Lap	Leo	Lig	Max	Moo	Neo	Nin	Nix
Now	Odd	Ohm	Ora	Pie	Pix	Poi	Qak	Rev	Rig
Rip	She	Sip	Sis	Tar	Ten	Thy	Tom	Toy	Uni
Use	Van	Vat	Vix	Wee	Who	Why	Yaw	Yea	Yum

SOURCE T-11057

Ace	Add	Ado	Ago	Aha	Ant	Azo	Bag	Bah	Bar
Bat	Ben	Bib	Bit	Boa	But	Cad	Cat	Cem	Cod
Con	Cop	Cow	Cur	Day	Dew	Dif	Dim	Dog	Duk
Ear	Eat	Ebb	Eek	Eel	Egg	Ego	Est	Eva	Fag
Far	Fed	Few	Fez	Fig	Fin	Fun	Gad	Gag	Gam
Gas	Gin	Gum	Guy	Hag	Hat	Her	Hex	Hid	His
Hit	Hut	Ice	Ida	Ink	Ion	Irk	Its	Ivy	Jam
Jap	Jar	Jaw	Jay	Jip	Jug	Jut	Ked	Ken	Kid
Kin	Kip	Lab	Lad	Lam	Lax	Lay	Liz	Lux	Mag
Mar	Maw	Mug	Mum	Nat	Nay	Nod	Nux	Oak	Obi
Off	Out	Owl	Pad	Pat	Paw	Peg	Pep	Pol	Put
Quo	Rag	Ram	Rat	Rue	Rum	Sad	Sag	Sam	Sax
Set	Sex	Six	Sub	Sue	Tan	Tap	Try	Tub	Val
Vet	Vex	Vim	Wad	War	Was	Wax	Win	Wit	Yak
Yam	Yet	Zag	Zig	Zoo					

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8188 (Field No. Co-1454)

GENERAL

This appears to be an excellent basic survey and no unusual conditions were encountered during the smooth plot.

CHART COMPARISONS

Lat. 37-41.25; Long. 76-17.15 6' shoal falls in charted depths of 7' to 10' -

Lat. 37-41.02; Long. 76-17.40 Shoal area more extensive than charted. Other shoals in same vicinity. *Development on old surveys is very sparse. (H-252 (1849-51))* LSS

Lat. 37-41.30; Long. 76-16.60 18' curve plots ^{100m} ~~200m~~ east of charted position

Lat. 37-40.30; Long. 76-18.90 6' curve plots ^{substantially in the} ~~200m~~ east of charted position.

Lat. 37-41.04; Long. 76-19.98 Shoal extends farther into channel than charted. *Not developed on old survey H-1605 (1861)*

Lat. 37-40.40; Long. 76-21.30 Dymmer Creek ^{1 foot} shoaler than charted. ~~120~~ ^{12'} curve 400m SE of charted position. *(Only 1 foot difference in depths - shifts curve a considerable distance here) i.e. 13 to 12'*

Lat. 37-39.10; Long. 76-18.30 2' and 3' shoals near channel not charted. *2 foot is charted on print of chart 534 - 4/7/58.*

Lt. 37-39.50; Long. 76-19.10 Shoal area of 5' to 6' not charted. *Sparse development on H-252 (1849-51)*

Respectfully submitted,

Hugh L. Proffitt

Hugh L. Proffitt
Cartographer

Survey No. H8188

Name on Survey

[illegible]

[illegible]

H-8188

報

Name on Survey

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Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ...8188...

Records accompanying survey:

Boat sheets 1(2parts), sounding vols. 17...; wire drag vols.;
bomb vols.; graphic recorder rolls 12-Envelopes
special reports, etc. 1-Descriptive report and 1-Smooth sheet.
.....

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

Number of positions on sheet	4300
Number of positions checked	338
Number of positions revised	9
Number of soundings revised (refers to depth only)	17
Number of soundings erroneously spaced	9
Number of signals erroneously plotted or transferred	9
Topographic details	Time 8
Junctions	Time 9
Verification of soundings from graphic record	Time 16

Verification by...J.C. Chambers...Total time 336. Date 11/24/58

Reviewed by...[Signature]...Time 40. Date 9 April 1959

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 8188

Virginia, Chesapeake Bay
Fleets Bay and Vicinity

FIELD NO. CO-1454

Surveyed - August - September 1954

Scale 1:10,000

Project No. CS-287

Soundings:

Control:

808 Depth Recorder
Leadline
Sounding Pole

Sextant fixes on
shore signals

Chief of Party - John C. Bull

Surveyed by - A. J. Ramey, J. M. Ogilvie and P. Hertelendy

Protracted by - G. O. Wimbro

Soundings plotted by - A. G. Atwill

Verified and inked by - J. C. Chambers

Reviewed by - L. S. Straw

Date: 9 April 1959

Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with reviewed shoreline surveys T-11055 (1952-54), T-11057 (1952-53) and subsequent minor revisions by the hydrographer shown in red on the smooth sheet.

The source of the control is given in the Descriptive Report.

2. Sounding Line Crossings

The depths at sounding line crossings are in adequate agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves supplemented by the 3-foot curve are completely delineated on the survey.

The bottom is sand and mud with the characteristic bars and deeps in the creeks and coves of this vicinity. From these tributaries 10 to 15 foot channels extend through large shoal areas of undulating sand bottom for $\frac{1}{2}$ to $1\frac{1}{2}$ miles from shore to reach general depths of 20 to 30 feet in the deep area of Fleets Bay.

4. Junctions with Contemporary Surveys

The junctions with H-8082 (1953-54) on the south, H-8191 (1954-55) on the east are in adequate agreement.

The depths at the junction of the present survey and H-8189 (1954) on the north are in good agreement. Soundings in the overlapping area will be transferred to the present survey when H-8189 (1954) has been completely verified.

5. Comparison with Prior Surveys

H-252 (1849-51)	1:40,000	H-2560 (1901)	1:20,000
H-1005 (1869)	1:20,000	H-3313 (1911)	1:40,000

A comparison between the prior surveys and the present reveals recessional changes of 50 to 100 meters in shoreline particularly in exposed places. The natural channels of all the creeks have shoaled about 1 foot, except the entrance to Tabbs Creek, (lat. $37^{\circ}39.28'$, long. $76^{\circ}20.55'$) which was 12 $\frac{1}{2}$ to 13 feet on H-1005 (1869) and has now shoaled to 2 ft. on the present survey. The depths over the shallow flat areas of Fleets Bay have changed little, and are generally within a foot of prior depths, however, in the deeper areas the depths are on an average of 2 feet shoaler on the present survey as compared to the old survey.

The differences in depths result from a combination of factors such as sedimentation, storm action in exposed areas, and weak control on the earlier small scale surveys.

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

6. Comparison with chart 534 (latest print date 4-7-58)

A. Hydrography

- (1) The charted hydrography originates basically with prior surveys discussed in paragraph 5 supplemented by information from other sources, and critical information from the present survey applied before verification and review.
- (2) The charted position of the wreck originating with T-8343 mentioned in the Preliminary Review and the Descriptive Report should be corrected to agree with the position of this wreck as determined by the present survey. (lat. $37^{\circ}40.43'$, long. $76^{\circ}21.06'$).

- (3) The chart indicates a controlling depth of 1 foot at the entrance to Tabbs Creek (lat. $37^{\circ}39.28'$, long. $76^{\circ}20.55'$) which originates with the present survey before verification and review. The depth here should be revised to 2 feet which is the controlling depth stated in the Descriptive Report and shown on the completed present survey. 534 revised

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

B. Aids to Navigation

- (1) Subsequent to the present survey the charted floating aids to navigation have been changed in accordance with Notice to Mariners No. 4, 1959.
- (2) It is noted that the light charted in lat. $37^{\circ}39.33'$ long. $76^{\circ}19.09'$ replaces a lighted bell buoy; that a lighted bell buoy charted in lat. $37^{\circ}39.52'$ long. $76^{\circ}17.60'$ was established and a former light structure was removed in lat. $37^{\circ}39.27'$ long. $76^{\circ}17.73'$.
- (3) The lights charted in lat. $37^{\circ}40.35'$ long. $76^{\circ}18.42'$, lat. $37^{\circ}39.75'$ long. $76^{\circ}19.68'$ and lat. $37^{\circ}39.5'$ long. $76^{\circ}19.35'$ differ by as much as 100 meters from their respective positions on the present survey.
- (4) The red and black lighted bell buoy charted in lat. $37^{\circ}40.55'$ long. $76^{\circ}16.25'$ is about 350 meters north of its location on the present survey.
- (5) All aids as charted properly mark the features intended with the possible exception of the lights, mentioned in par. 6B (3) above.

7. Condition of the Survey

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

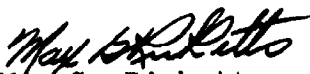
8. Compliance with Project Instructions

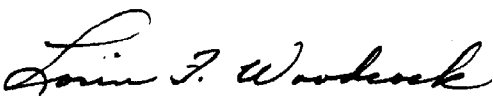
The survey adequately complies with the Project Instructions.


9. Additional Field Work


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

EXAMINED AND APPROVED:


Max G. Ricketts
Chief, Nautical Chart Branch


Lorin F. Woodcock
Chief, Hydrographic Branch


Ernest B. Lewey
Chief, Chart Division


Samuel B. Grenell
Chief, Coastal Surveys Division

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

6 March 1957

Plane of reference approved in
17 volumes of sounding records for

HYDROGRAPHIC SHEET 8188

Locality Chesapeake Bay, Va.

Chief of Party: J. C. Bull in 1954

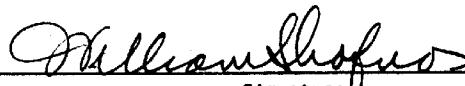
Plane of reference is mean low water, reading

2.5 ft. on tide staff at Ocean

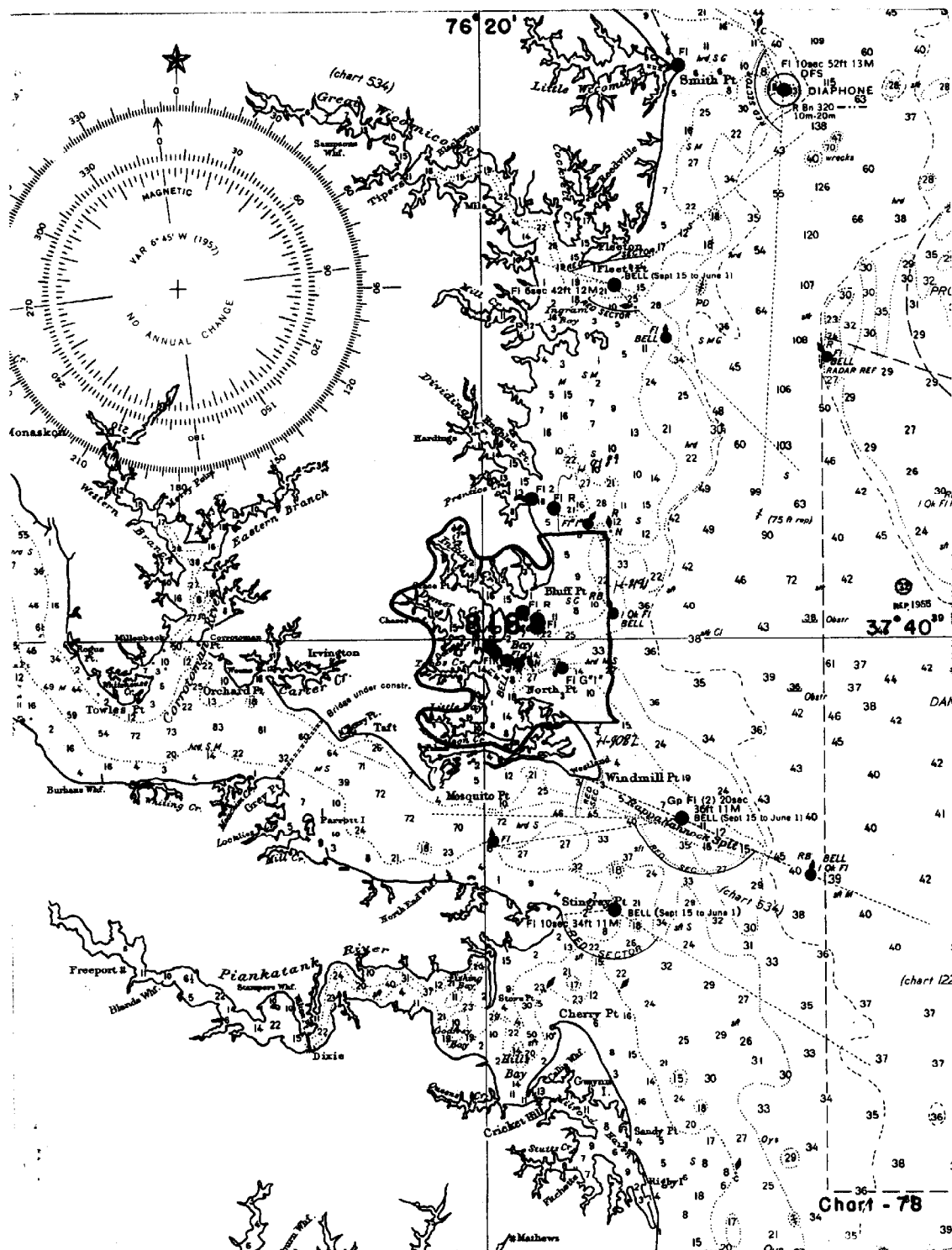
3.9 ft. below B.M. 1 (1954)

Height of mean high water above plane of reference is 1.1 ft.

Condition of records satisfactory except as noted below:


Signature

Chief, Tides Branch



NAUTICAL CHARTS BRANCH

SURVEY NO. H-8188

Record of Application to Charts

[illegible]

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.