

8083

Diag. Cht. Nos. 78 & 1222-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. CO-2153 Office No. H-8083

LOCALITY

State Virginia

General locality Chesapeake Bay

Locality Horn Harbor to Stingray Point

194 53

CHIEF OF PARTY

Comdr. J. H. Brittain

LIBRARY & ARCHIVES

DATE May 6, 1955

8083

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-8083

Field No. CO - 2153

State VIRGINIA

General locality CHESAPEAKE BAY

Locality HORN HARBOR TO STINGRAY PT.

Scale 1:20,000 Date of survey 7 May - 9 Oct. 1953

Instructions dated 5 February 1953

Vessel SHIP COWIE

Chief of party COMDR J. H. BRITTAIN

Surveyed by SHIP'S OFFICERS

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

Fathograms scaled by Personnel of the Ship COWIE

Fathograms checked by " " " " "

Protracted by A. Kaupa

Soundings penciled by A. Kaupa

Soundings in ~~135000~~ feet at MLW ~~MLLW~~ and are true depths.

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

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY H -8083, FIELD NO. CO-2153

CHESAPEAKE BAY

PROJECT CS-287

SHIP COWIE

SCALE 1:20,000

J. H. BRITAIN, COMDG.

A - PROJECT:

Project CS-287; Supplemental Instructions dated 5 February 1953.

B - SURVEY LIMITS AND DATES:

The area covered by this survey is in the western part of Chesapeake Bay off Horn Harbor, lat. $37^{\circ}30.0'$, to about Stingray Point, lat. $37^{\circ}34.0'$, and from long. $76^{\circ}09.5'$, to $76^{\circ}15.0'$ W. Junction with recent surveys is made with ^{H-7960(1952) (copy)} CO-2152 to the south; ^{(H-8078(1953))} CO-1153, ^{(H-8079(1953))} CO-1253 and ^{(H-8080(1953))} CO-1353 to the west; ^{H-8082(1953-54)} and CO-1553 to the north^{west}. There are no contemporary surveys to the east.

Hydrographic surveys began 7 May 1953 and were conducted at intermittent intervals through 9 October 1953.

C - VESSELS AND EQUIPMENT:

The Ship COWIE and 30 foot launch no. 102 were used for this survey. Both used the 808 type fathometer, the COWIE working in the area of general depths in excess of 15 feet and the launch in shoaler depths in the vicinity of Wolf Trap Lighthouse and westward thereof to a junction with Survey ^{H-8078} CO-1153.

D - TIDE AND CURRENT STATIONS:

Portable automatic tide gages were maintained at Wolf Trap Lighthouse and Jackson Creek with a few interruptions during this survey.

D - TIDE AND CURRENT STATIONS (CONT.)

Tide gages and all soundings are on Eastern Standard Time. No current stations were observed in the area of this survey.

E - SMOOTH SHEET:

Projection ^{W95} will be constructed and sheet ^{W95} plotted by the Norfolk Processing Office.

F - CONTROL STATIONS:

See N.P.O. Signal List.

1. The following triangulation stations were recovered and used:

<u>HYDROGRAPHIC NAME</u>	<u>TRIANGULATION STATION</u>
POINT	New Point Comfort L.H., 1871 - 1932
WOLF	Wolf Trap L.H., 1898 - 1932
STING	Stingray Point L.H., 1900 - 1932

2. The following topographic signals were used:

<u>HYDROGRAPHIC NAME</u>	<u>DESCRIPTION</u>	<u>SOURCE</u>
ADO	Temporary signal	T-11061
CALL	House, south chimney	T-11157
CAT	Temporary signal	T-11158
EAST	House, east gable	T-11157
HAR	Horn Harbor Lt. No. 3	T-11161
HORN	Horn Harbor Lt. No. 1	T-11161
LIZ	Temporary signal	T-11158
PARK	Building, north gable	T-11161
RAT	SE gable, lg. pavilion	T-11061
RODS	House, NE gable	T-11061
SHORE	House, chimney at NE gable	T-11061
SIN	Large white sign board	T-11157
TREE	N'ly. of 2 prominent trees	T-11157

G - SHORELINE AND TOPOGRAPHY:

There was no shoreline transferred to the boat sheet. The topographic signals were transferred to the boat sheet from the manuscripts. T-11061, T-11157, T-11158 and T-11161 of 1952.

T-8329

Lat 37° 22' 15"
Long 76° 15' 4"
N. of prominent TREE
dist. 100'

H - SOUNDINGS:

Depths were measured with the 808 type recording fathometer. Bar checks were taken daily from the Ship and launch 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.

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 SURVEYS:

This survey is considered complete, adequate for charting purposes and to supersede all prior surveys. Junction with adjoining surveys are satisfactory, no holidays exist and depth curves can be adequately drawn at the junctions.

K - CROSSLINES:

Crosslines are in good agreement, the percentage is estimated at eight to ten percent.

L-M - COMPARISON WITH PRIOR SURVEYS AND CHARTS:

A comparison with charts 494 (5/26/52), 534 (2/9/53), 1222 (1/26/53), *TPC* 78 (2/25/52) and 1223 (12/22/52) has been made for the area covered by this *Review* survey with special attention being given to the shoal soundings, etc., covered by the Preliminary Review. These were marked for special attention on the boat sheet and are listed as follows:

✓ Item 27 - The area about the wreck charted at lat. $37^{\circ}26.35'$, long. $76^{\circ}11.08'$, was developed to some extent without finding any indication. *PLC Review. Recommend W.D.*

off photo

L-M - COMPARISON WITH PRIOR SURVEYS: (ITEM 27, CONT.)

The development was not sufficiently extensive to prove or disprove its existence in the area. It is recommended that this area be wire dragged.

Item 28 (Part)

(a) The 12 foot sounding at lat. $37^{\circ}24.20'$, long. $76^{\circ}11.45'$, was verified in that a depth of 12 feet was obtained about ²⁰⁰~~150~~ meters to the eastward. PS Review

At the charted position, 16 feet was the least depth found. It is recommended that the sounding be charted at this new position. *Recommendation concurred in. Present 12 ft. charted. 4/16/56*

(b) The 16 foot sounding at lat. $37^{\circ}24.78'$, long. $76^{\circ}12.25'$, was not PS Review
verified at its charted position, general depths in the area now being 17 ^{present 16 ft. sdgs nearby} feet. However, 15 foot and 16 foot soundings were obtained some 250 yards to the south.

Item 30 - The 10 foot sounding charted at lat. $37^{\circ}23.50'$, long. $76^{\circ}11.15'$, was not verified. This area was developed with closely spaced lines and by drifting over the area at various times while stopped at Wolf Trap Lt. House to service the tide gage there. The least depth obtained was 16 feet about ¹⁵⁰~~100~~ meters to the eastward. It is believed that the 10 foot sounding may have been 1 fathom in error as stated in the preliminary review and it is recommended that this sounding be deleted from the chart. *Deleted from chart.*

Item 32 - The 19 foot depth charted at lat. $37^{\circ}22.15'$, long. $76^{\circ}10.93'$, ^{at Lat. $37^{\circ}22.1'$, Long $76^{\circ}11.03'$} was not verified, 21 feet being the least depth found ~~here~~. It is believed that the bottom has changed to that extent here, being in an area effected by strong currents. It is recommended that the 19 foot depth be superseded by the 21 foot sounding. *Recommendation concurred in. 19 no longer charted 4/16/56*

The following listed shoal soundings ^{are} not shown on charts of the area:

1. Lat. $37^{\circ}22.33'$, long. $76^{\circ}12.01'$ - ^{11.97}~~7 1/2~~ feet. 13-14 E & 13 J
2. Lat. $37^{\circ}21.92'$, long. $76^{\circ}10.97'$ - ⁴~~19~~ feet. 44 C
3. Lat. $37^{\circ}23.10'$, long. $76^{\circ}11.06'$ - ^{10.91}~~14~~ feet. 19-20 E

L-M - COMPARISON WITH PRIOR SURVEYS: (CONT.)

4. Lat. 37 23.6³₅', long. 76 10.4⁶₄', - 23 feet. 128-129 CA ✓
5. Lat. 37 24.5⁷₅', long. 76 11.4⁰₈', - 12 feet. 12-13 f 37-38 G ✓
6. Lat. 37 25.90', long. 76 11.6²₅', - 21 feet. 97-98 T ✓
7. Lat. 37 29.6⁹₈', long. 76 14.3²₁', - 1⁷₅ feet. 174-175 X K

Items numbered 1 and 3, above, were reported early in the season. ✓

In general, there are a number of shoaler soundings in the area than charted. Also some of those charted are in a slightly different position. It is not proven that the area is a changeable one particularly as far as depths are concerned, although, it is probably that the sand ridges drift to some extent in severe storms and with the current. The shoaler depths would appear to be due to the difference in sounding equipment, it not being likely that the hand lead always located the tops of the ridges.

TPS of
Review

N - DANGERS AND SHOALS:

The principal dangers in the area are charted. There are numerous fish traps in the area shown on the chart as fish trap areas. There are no traps outside the trap area.

TP6
Review

O - COAST PILOT INFORMATION:

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

P - AIDS TO NAVIGATION:

Wolf Trap Light House is located by triangulation. Positions of all floating aids to navigation were located either by three-point fixes or by distance off of sounding lines passing close to buoys.

Q - LANDMARKS FOR CHARTS:

Three new landmarks for charts, as shown on Form 567, are recommended for the area covered by this survey. *Chart Letter 1126 (1953)*

R - GEOGRAPHIC NAMES:

Geographic names shown on Charts 494 and 534 are adequate for this area. No additional names are recommended.

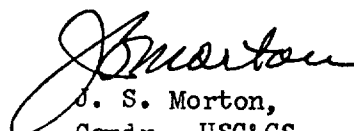
U-Y - MISCELLANEOUS:

In featureless areas, soundings were spaced every 30 seconds apart on the boat sheet. Intermediate soundings were plotted only where needed to define underwater features. In depths of 30 feet or more, sounding lines were spaced up to 200 meters apart, except where closed spacing was needed to define underwater features.

Z - TABULATION OF APPLICABLE DATA:

A list of signals is attached to Volume I of the sounding records. A tabulation of other data is attached.

Respectfully submitted,


J. S. Morton,
Comdr., USC&GS,
Comdg. Ship COWIE

SHIP COWIE:

STATISTICS

<u>VOL. NO.</u>	<u>DATE(1953)</u>	<u>DAY LETTER</u>	<u>NO. OF POSITIONS</u>	<u>STATUTE MILES</u>
I	5/7	A	157	73.4
I	5/8	B	55	24.5
II	5/8	B	63	28.1
II	5/15	C	48	18.6
II	5/22	D	49	18.6
II	5/25	E	20	6.0
II	5/29	F	35	12.6
III	5/29	F	101	34.8
III	6/5	G	54	18.3
III	6/8	H	90	32.8
IV	6/9	J	195	75.4
IV	6/10	K	75	28.2
V	6/10	K	131	44.2
V	6/15	L	61	19.7
V	6/19	M	70	26.3
VI	6/19	M	92	34.4
VI	6/24	N	179	67.6
VII	6/24	N	14	6.4
VII	6/26	P	139	48.9
VII	7/10	Q	78	26.1
VIII	7/20	R	113	36.5
VIII	7/23	S	164	54.3
IX	7/23	S	8	2.6
IX	7/24	T	127	41.7
IX	8/4	U	124	47.7
X	8/4	U	53	20.8
X	8/7	V	81	22.1
X	8/10	W	118	35.7
XI	8/28	X	60	12.5
XI	9/3	Y	123	27.8
XI	9/4	Z	97	29.6
XII	9/4	Z	41	13.6
XII	9/11	AA	145	53.0
XII	9/14	BA	67	14.0
XIII	9/18	CA	139	39.9
XIII	9/25	DA	68	12.5
XIII	10/5	EA	47	14.3
XIV	10/5	FA	22	4.7
			<u>3293</u>	<u>1107.2</u>

LAUNCH NO. 102:

± XV	6/2	a	101	30.6
± XV	6/3	b	112	27.5
±± XVI	6/3	b	33	14.5
±± XVI	6/12	c	39	11.3
±± XVI	6/16	d	116	31.3
±± XVI	6/18	e	64	17.0
±±± XVII	6/18	e	44	11.6
±±± XVII	6/22	f	89	25.7
±±± XVII	6/30	g	122	24.5
±± XVIII	7/7	h	82	21.0
±± XVIII	9/2	j	152	31.8
± XIX	10/5	k	100	14.4
			<u>1054</u>	<u>261.2</u>
AREA: 62.3 SQ. STAT. MI.			<u>SHIP TOTAL:</u>	<u>1107.2</u>
			<u>GRAND TOTALS:</u>	<u>1368.4</u>

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FATHOMETER CORRECTIONS - SHIP COWIE

<u>DAY</u>	<u>DATE(1953)</u>	<u>CORRECTION</u>
A	5/7	0.0 to 14.0 --0.6 14.5 to 18.5 --0.8 19.0 to 21.5 --1.0 22.0 to 24.0 --1.2 24.0 to 26.0 - -1.4 26.5 to 28.0 - -1.6 28.5 to 30.0 - -1.8 30.5 to 31.5 - -2.0 32.0 to 33.0 - -2.2 33.5 to 34.5 - -2.4 35.0 to 36.0 - -2.6 Over 36 - -2.8
B	5/8	0.0 to 21.0 - -1.0 21.5 to 23.0 - -1.2 23.5 to 25.0 - -1.4 25.5 to 27.5 - -1.6 28.0 to 30.0 - -1.8 30.5 to 33.0 - -2.0 33.5 to 36.5 - -2.2 37.0 to 40.0 - -2.4 40.5 to 44.0 - -2.6 Over 44.0 - -2.8
C	5/15 #145	0.0 to 20.0 - -0.8 20.5 to 31.0 - -1.0 31.0 to 33.5 - -1.2 34.0 to 36.0 - -1.4 36.5 to 37.5 - -1.6 38.0 to 39.0 - -1.8 39.5 to 41.0 - -2.0 Over 41.0 - -2.2
D	5/22	0.0 to 10.5 - -0.2 11.0 to 14.5 - -0.4 15.0 to 19.0 - -0.6 19.5 to 25.5 - -0.8 25.5 to 32.0 - -1.0 32.5 to 37.0 - -1.2 37.5 to 40.0 - -1.4 Over 40.0 - -1.6
E	5/25	0.0 to 16.5 - - 0.4 17.0 to 18.5 - - 0.2 Over 18.5 - 0.0

FATHOMETER CORRECTIONS - SHIP COWIE (CONT.)

<u>DAY</u>	<u>DATE(1953)</u>	<u>CORRECTION</u>
F	5/29	0.0 to 21.0 - -0.0 21.5 to 23.5 - -0.2 24.0 to 26.0 - -0.4 26.5 to 29.0 - -0.6 29.5 to 34.0 - -0.8 34.5 to 43.0 - -1.0 Over 43.0 - -1.2
G	6/5	0.0 to 15.0 - / 0.2 15.5 to 32.0 - 0.0 32.5 to 36.5 - -0.2 37.0 to 39.5 - -0.4 40.0 to 43.0 - -0.6 Over 43.0 - -0.8
H	6/8	0.0 to 17.0 - / 0.6 17.5 to 23.0 - / 0.4 23.5 to 30.5 - / 0.2 Over 30.5 - 0.0
J	6/9	0.0 to 18.0 - 0.0 18.5 to 21.5 - -0.2 22.0 to 24.5 - -0.4 25.0 to 28.0 - -0.6 28.5 to 33.5 - -0.8 Over 33.5 - -1.0
K	6/10	0.0 to 14.0 - 0.0 14.5 to 16.0 - -0.2 16.5 to 18.5 - -0.4 19.0 to 21.5 - -0.6 22.0 to 26.0 - -0.8 26.5 to 33.5 - -1.0 Over 33.5 - -1.2
L	6/15	0.0 to 33.5 - 0.0 34.0 to 39.5 - -0.2 Over 40.0 - -0.4
M	6/19	0.0 to 29.5 - 0.0 Over 29.5 - -0.2
N	6/24	0.0 to 14.5 - 0.0 15.0 to 23.5 - -0.2 24.0 to 30.5 - -0.4 31.0 to 36.0 - -0.6 36.5 to 41.5 - -0.8 Over 41.5 - -1.0

FATHOMETER CORRECTIONS - SHIP COWIE (CONT.)

<u>DAY</u>	<u>DATE (1953)</u>	<u>CORRECTION</u>
P	6/26	0.0 to 17.5 - / 0.2 18.0 to 21.5 - 0.0 22.0 to 25.5 - -0.2 26.0 to 33.5 - -0.4 34.0 to 37.5 - -0.2 Over 37.5 - 0.0
Q	7/10	0.0 to 21.5 - / -0.0 22.0 to 24.5 - -0.2 25.0 to 28.0 - -0.4 28.5 to 31.0 - -0.6 31.5 to 34.5 - -0.8 Over 35.0 - -1.0
R	7/20	NO CORRECTIONS
S	7/23 114	0.0 to 16.0 - / 0.4 16.5 to 18.5 - / 0.2 19.0 to 30.5 - 0.0 31.0 to 31.5 - -0.2 32.0 to 32.5 - -0.4 33.0 to 33.5 - -0.6 34.0 to 34.5 - -0.8 35.0 to 35.5 - -1.0 36.0 to 36.5 - -1.2 Over 37.0 - -1.4
T	7/24 #114	No Corrections
U	8/4	No Corrections
V	8/7	No Corrections
W	8/10	0.0 to 17.5 - / 0.4 18.0 to 24.0 - / 0.2 Over 24.0 - 0.0
X	8/28	0.0 to 17.0 - / 0.4 17.5 to 19.5 - / 0.2 20.0 to 22.5 - 0.0 23.0 to 26.5 - / 0.2 27.0 to 33.0 - / 0.4 Over 33.0 - / 0.6
Y	9/3	0.0 to 24.5 - / 0.4 25.0 to 34.5 - / 0.2 Over 34.5 - 0.0

FATHOMETER CORRECTIONS - SHIP COWIE (CONT.)

<u>DAY</u>	<u>DATE (1953)</u>	<u>CORRECTIONS</u>
Z	9/4	0.0 to 15.0 - 0.6 15.5 to 17.5 - 0.4 18.0 to 22.5 - 0.2 23.0 to 26.5 - 0.4 27.0 to 37.0 - 0.6 Over 37.0 - 0.4
AA	9/11	0.0 to 13.0 - 0.0 13.5 to 18.0 - 0.2 Over 18.0 - 0.4
BA	9/14	0.0 to 40.0 - 0.6
CA	9/18	0.0 to 16.0 - 0.4 16.5 to 18.5 - 0.2 Over 18.5 - 0.0
DA	9/25	0.0 to 17.5 - 0.2 Over 18.0 - 0.0
EA	10/5	No Corrections
FA	10/9	0.0 to 17.5 - 0.0 18.0 to 32.0 - -0.2 32.5 to 35.0 - -0.4 Over 35.0 - -0.6

TIDE NOTE

A portable automatic tide gage at Wolf Trap Light Station in lat. $37^{\circ}23.41'$, long. $76^{\circ}11.39'$, was used for obtaining the tide reducers for the area south of Milford Haven Spit. The tide reducers for the remainder of the sheet were obtained from a portable automatic tide gage located at Jackson Creek, Piankatank River, at lat. $37^{\circ}32.79'$, long. $76^{\circ}19.92'$. No time or height corrections were applied to the observed tides. Hourly heights were scaled from the marigrams by personnel of the Ship COWIE. A tabulation of the work covered by each tide gage is included in this report.

SHIP COWIE - WOLF TRAP TIDES:

<u>VOL. NO.</u>	<u>DATE (1953)</u>	<u>DAY</u>	<u>VOL. NO.</u>	<u>DATE(1953)</u>	<u>DAY</u>
II	5/8	110-B - 118-B	VII	6/26	22-P - 26-P
II	5/15	25-C - 48-C	VII	6/26	83-P - 88-P
II	5/22 - 5/25	24-D - 20-E	VII	6/26	123-P - 139-P
III	5/29	108-F - 136-F	VII-VIII	7/10-7/20	24-Q - 112-R
III-IV	6/5 - 6/9	24-G - 24-J	VIII	7/23	80-S - 143-S
IV	6/9	57-J - 81-J	IX	7/24	31-T - 127-T
IV	6/9	111-J - 115-J	IX	8/4	27-U - 77-U
IV	6/10	24-K - 29-K	IX-X	8/4	112-U - 161-U
V	6/15 - 6/19	1-L - 85-M ^{6/16} 6/17	X-XI	8/10-8/28	1-W - 60-X
V-VI	6/19	68-M - 92-M	XI-XII	9/4	17-Z - 138-Z
VI	6/19	129-M - 162-M	XII	9/11	26-AA - 76-AA
VI	6/24	27-N - 30-N	XII	9/11-9/14	108-AA - 67-BA
VI	6/24	68-N - 71-N	XIII	9/18	52-CA - 139-CA
VI	6/24	108-N - 113-N	XIII-XIV	9/25-10/9	5-DA - 22-FA
VI	6/24	149-N - 152-N			

JACKSON CREEK TIDES:

I - II	5/7- 5/8	1-A - 110-B	VI	6/24	113-N - 149-N
II	5/15	1-C - 25-C	VI-VII	6/24-6/26	152-N - 22-P
II	5/22	1-D - 24-D	VII	6/26	26-P - 83-P
II-III	5/29	1-F - 107-F	VII	6/26	88-P - 123-P
III	6/5	1-G - 24-G	VII	7/10	1-Q - 24-Q
IV	6/9	24-J - 57-J	VIII	7/23	1-S - 80-S
IV	6/9	81-J - 111-J	VIII-IX	7/23-7/24	143-S - 31-T
IV	6/9 - 6/10	116-J - 24-K	IX	8/4	1-U - 27-U
IV-V	6/10	29-K - 206-K	IX	8/4	77-U - 112-U
V	6/19	IM 26-M - 68-M	X	8/4 - 8/7	161-U - 81-V
VI	6/19	92-M - 129-M	XI	9/3 - 9/4	1-Y - 17-Z
VI	6/24	1-N - 27-N	XII	9/11	1-AA - 26-AA
VI	6/24	30-N - 68-N	XII	9/11	76-AA - 108-AA
VI	6/24	71-N - 108-N	XIII	9/18	2-CA - 51-CA
			XIII	9/25	1-DA - 5-DA

LAUNCH NO. 102 - WOLF TRAP TIDES:

XIV-XVIII 6/2 - 10/5 1-a - 100-k

LIST OF SIGNALS
H-8083

TRIANGULATION STATIONS

POINT	NEW POINT COMFORT LIGHTHOUSE, 1871-1932
WOLF	WOLF TRAP LIGHTHOUSE, 1898-1932
STING	STINGRAY POINT LIGHTHOUSE, 1900-32

DESCRIBED TOPOGRAPHIC STATIONS

Call	CALL, 1944-53	T-11157
Har	HORN HBR. LT. 3, 1953	T-11161
Horn	HORN HBR. LT. 1, 1953	T-11161
Rods	RODS, 1944-53	T-11061
Shore	SHORE, 1944-53	T-11061

TOPOGRAPHIC STATIONS

Ado	T-11061
Cat	T-11158
East	T-11157
Liz	T-11158
Park	T-11161
Rat	T-11061
Sin	T-11157
Tree	T-11157

FLOATING AIDS TO NAVIGATION
H-8083

<u>NAME</u>	<u>LAT.</u>	<u>LONG.</u>	<u>DEPTH</u>	<u>POS. NO.</u>	<u>DATE</u>
Wolf Trap Shoal Buoy 11	37-22.38	76-10.66	24'	50h	7-7-53
Wolf Trap Shoal Buoy 13	37-23.49	76-10.36	30'	18M	6-19-53
 BW S "1W"	37-28.24	76-11.00	34'	5DA	9-25-53
BW S "2W"	37-30.28	76-11.22	31'	74P	6-26-53
BW S "3W"	37-32.37	76-11.48	34'	110P	6-26-53
BW S "4W"	37-33.58	76-13.39	31	127A	5- 7-53
BW S "6W"	37-33.90	76-13.50	30	99K	6-10-53
S "1 AW"	37-26.13	76-10.96	29	24Z	9- 4-53
S "1 BW"	37-24.91	76-10.61	26	136Z 80M	9-4-53 & 6-9-53
S "113N"	37-20.74	76-10.99	31	4J	6-9-53
S 13	37-22.01	76-11.85	28	95b	6-3-53

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8083 (Field No. Co-2153)

GENERAL

This appears to be an excellent basic survey and no unusual difficulties were experienced with the smooth plot.

There is an extensive sand wave area in the vicinity of Wolf Trap L.H.

SHORELINE AND CONTROL

The shoreline and topographic control were reduced to scale in the Processing Office from 1:10,000 scale air-photo compilations.

DISCREPANCIES

Soundings at crossings checked very well with the exception of "K" day. Soundings on this day are in general disagreement with surrounding hydrography by about one foot. The discrepancy is particularly noticeable between positions 39 and 59K. TP-2
Review

Respectfully submitted,

Hugh L. Proffitt
Hugh L. Proffitt
Cartographer.

Norfolk, Va.

5 May 1955

GEOGRAPHIC NAMES

Survey No. H-8083

Name on Survey

	A	B	C	D	E	F	G	H	K	
<u>Virginia</u>			} title (tide station)						BSM	1
<u>Chesapeake Bay</u>									"	2
<u>Wolf Trap light</u>									"	3
<u>Horn Harbor</u>										4
<u>Nailford Haven</u>										5
<u>Cherry Point</u>										6
<u>Piankatank River</u>									BSM	7
<u>Stingray Point</u>										8
										9
										10
										11
										12
										13
<u>Jackson Creek</u>										14
<u>(Piankatank River)</u>										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 5053....

Records accompanying survey:

Boat sheets ...1...; sounding vols. 19....; wire drag vols.;
bomb vols.; graphic recorder rolls 16 Env;
special reports, etc. 1-Smooth sheet.....
.....

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

Number of positions on sheet	4347
Number of positions checked	160
Number of positions revised	1
Number of soundings revised (refers to depth only)	*1600
Number of soundings erroneously spaced	0
Number of signals erroneously plotted or transferred	0
Topographic details	Time 4
Junctions	Time 24
Verification of soundings from graphic record	Time 8

Verification by F.P. SAULSBURY.....Total time 320... Date 10-25-55

Reviewed by *Jim Zerkow*.....Time 48... Date 1-24-56

* Resulting from Arbitrary corr. to Wday (8-10-53) & K day (10-5-53) & various initial corrections.

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~DIVISION OF HYDROGRAPHY AND TOPOGRAPHY~~

16 June 1955

Division of Charts: R. H. Carstens

Plane of reference approved in
19 volumes of sounding records for

HYDROGRAPHIC SHEET 8083

Locality Chesapeake Bay, Va.

Chief of Party: J. H. Brittain in 1953

Plane of reference is mean low water, reading

2.5 ft. on tide staff at Wolf Trap Lighthouse (Apr. 29)

2.3 ft. ~~below B.M.~~ on staff at Wolf Trap Lighthouse (Aug. 15)

6.7 ft. below B.M. 1 (1901)

2.4 ft. on tide staff at Jackson Creek (May 5)

2.1 ft. on " " " " (July 28)

9.9 ft. below B.M. 1 (1953)

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

Wolf Trap. L.H.: 1.5 ft.

Jackson Creek : 1.2 ft.

Condition of records satisfactory except as noted below:

E. C. McKay
Tides Branch

Chief, Division of Tides and Currents.

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

REGISTRY NO. H-8083

FIELD NO. CO-2153

Virginia, Chesapeake Bay, Horn Harbor to Stingray Pt.

Project No. CS-287

Surveyed - May,-October, 1953

Scale 1:20,000

Soundings:

Control:

808 Fathometer

Sextant fixes on
shore signals

Chief of Party - J. H. Brittain
Surveyed by - J. H. Brittain, J. S. Morton, A. J. Ramey,
 A. E. Greaves, and J. M. Ogilvie
Protracted by - A. Kaupa
Soundings plotted by - A. Kaupa
Verified and inked by - F. P. Saulsbury
Reviewed by - I. M. Zeskind 1-24-56
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with unreviewed air-photographic surveys T-11061, T-11157, T-11158 and T-11161 of 1952.

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

2. Sounding Line Crossings

Depths at crossings are in good agreement. Adjustments of -1.0 ft. to the soundings obtained by launch 102 on October 2, 1953, and +0.6 ft. to the soundings obtained by the ship COWIE on August 10, 1953, were made in order to obtain agreement with the adjacent hydrography.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated.

The bottom is fairly irregular especially in depths less than 30 ft., where there are numerous sand shoals and ridges.

4. Junctions with Contemporary Surveys

An adequate junction was effected with H-8078 (1953) on the southwest. Junctions with H-8080 (1953) and H-8079 (1953) on the west and with H-7960 (1952) on the south will be considered in the reviews of those surveys. Project surveys on the east and north have not as yet been received in the Washington Office.

5. Comparison with Prior Surveys

A. H-285 (1851), 1:40,000	H-2813 (1906), 1: ² 20 ,000
H-364 (1852), 1:40,000	H-2870 (1906-07), 1:20,000
H-2550 (1900-01), 1:60,000	H-3313 (1911), 1:40,000
<u>H-2551 (1901), 1:60,000</u>	<u>H-4039 (1918-19), 1:30,000</u>

A comparison between the prior and present surveys reveals changes of 2-5 ft. in depths. It is noted, that although some of the sand ridges are slightly shifted in their locations, only minor changes in their contours and depths have occurred. Present depths vary 1-3 ft. from prior depths on these features, except as follows:

(1) The 12 ft. sounding (uncharted) in lat. $37^{\circ}24.20'$, long. $76^{\circ}11.45'$, on H-285 (1951) falls on the present survey in depths of 16-17 ft. A 12-ft. sounding, adequate for charting purposes, was obtained on the present survey about 200 meters to the eastward of the prior sounding.

(2) The 10-ft. sounding (uncharted) at lat. $37^{\circ}23.50'$, long. $76^{\circ}11.15'$ on H-4039 (1918) falls in a closely developed area on the present survey in depths of 16-23 ft. and is considered disproved. The prior sounding is a single unsupported sounding falling in general depths of 16-17 ft. on H-4039 and is considered to have been recorded in error by 1 fm.

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

B. Wire-drag Surveys

H-7677 WD (1947-48), 1:40,000

The present depths are in harmony with the effective wire-drag depths.

6. Comparison with Chart 494 (latest print date 8-22-55)
 Chart 534 (latest print date 10-31-55)
 Chart 1222 (latest print date 10-10-55)
Chart 1223 (latest print date 11-7-55)

A. Hydrography

The charted hydrography originates principally with the boat sheet of the present survey and with the prior surveys previously discussed which need no further consideration. Minor differences of 1-3 ft. between the charted depths and the present survey depths are noted.

The wreck charted in lat. $37^{\circ}26.35'$, long. $76^{\circ}11.08'$, from H. O. N. to M. 48 (1947) falls in present depths of 28 ft. This area is not considered adequately developed on the present survey to confirm or disprove the existence of the wreck. The wreck should be retained on the chart.

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

B. Aids to Navigation

The present survey positions of aids to navigation are in substantial agreement with the charted positions and adequately mark the features intended, except that buoy C-11 charted in lat. $37^{\circ}22.48'$, long. $76^{\circ}10.50'$ falls about 140 meters to the northeastward on the present survey.

7. Condition of Survey

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

8. Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

The survey is considered to be basic and no additional field work is recommended. However, a wire-drag investigation of the wreck charted in lat. $37^{\circ}26.35'$, long. $76^{\circ}11.08'$ would be desirable for disposition of this charted feature. ✓

Examined and Approved:



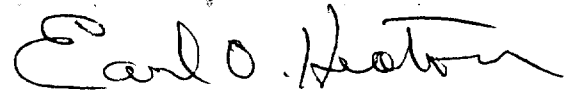
H. R. Edmonston
Chief, Nautical Chart Branch



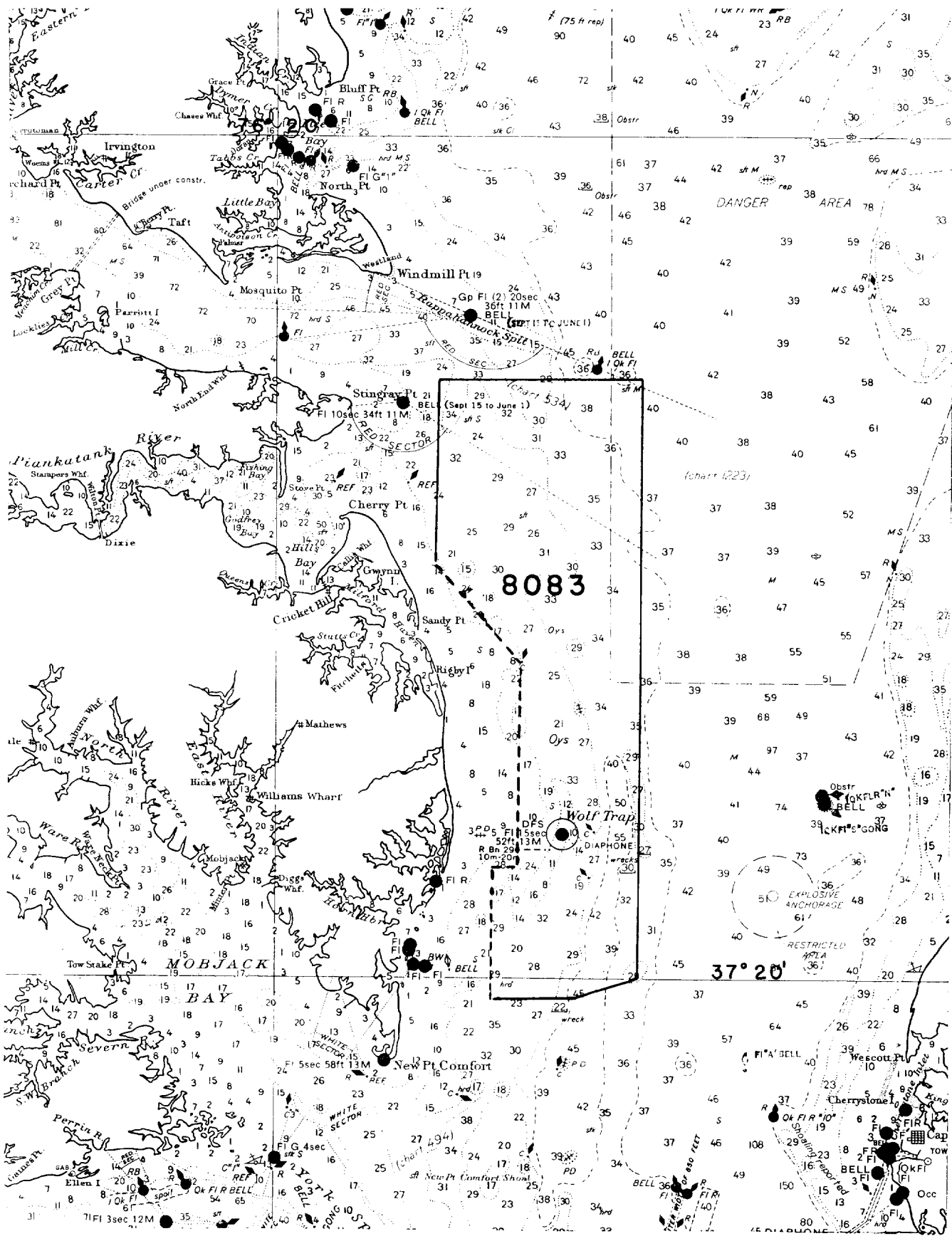
E. R. McCarthy
Chief, Chart Division



J. C. Bull
Chief, Hydrography Branch



Earl O. Heaton
Chief, Division of Coastal Surveys



NAUTICAL CHARTS BRANCH

SURVEY NO. H-8083

Reviewed 1-24-'56

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
14 Apr '59	534	H.E. MacEwen	<i>Partially applied</i> Before After Verification and Review
6/2/59	534	J.H. Eaton	<i>Fully App'd.</i> Before After Verification and Review
9/16/59	494	H.E. MacEwen	<i>Fully applied.</i> Before After Verification and Review (Drg #17)
11-9-59	562	R.E. Elkins	Before After Verification and Review <i>Fully applied thru ckt 494 drg. #17.</i>
1-20-60	1222	R.E. Elkins	Before After Verification and Review <i>Fully applied.</i> <i>Opp thru ckt 494 drg 17 and ckt 562.</i>
2/10/60	563	J.H. Eaton	Before After Verification and Review
5-3-60	1223	R.K. Alexander	Before After Verification and Review <i>thru ckt 534, 494, and 563</i>
1/4/61	28	J.H. Eaton	Before After Verification and Review <i>thru ckt 1223</i>
10-1-85	1222A	J. Graham	Before After Verification and Review <i>Prototype</i>
			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.