

7945

Diag. Cht. No. 78-73

CS-287

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey **HYDROGRAPHIC**
Field No. **CO-2251** Office No. **H-7945**

LOCALITY

State **MARYLAND AND VIRGINIA**
General locality **CHESAPEAKE BAY**
Locality **POCOMOKE SOUND**

1945

CHIEF OF PARTY

Comdr. John Bowie, Jr.

LIBRARY & ARCHIVES

DATE **JUL 9 1953**
20 November 1951

B-1870-1 (1)

7945

JUL 9 1953

Form 537
(Ed. June 1946)

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-7945

Field No. CO-2251

State MARYLAND AND VIRGINIA

General locality CHESAPEAKE BAY

Locality POCOMOKE SOUND

Scale 1:20,000 Date of survey 13 June - 30 July 1951

Instructions dated 28 February 1949

Vessel Ship COWIE

Chief of party John Bowie, Jr.

Surveyed by G. C. Mast & E. A. Taylor

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

Fathograms scaled by Ship's Personnel

Fathograms checked by E. A. Taylor, R.M. Borst, & G. C. Mast.

Protracted by Myron M. Smith

Soundings penciled by A. Kaupa

Soundings in ~~fathoms~~ feet at MLW ~~NDXXX~~

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

276

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY H -7945 FIELD NO. CO-2251

POCOMOKE SOUND, MD. & VA. SCALE 1:20,000

SHIP COWIE

PROJECT CS-287

John Bowie, Jr., Comdg.

A - PROJECT:

Project CS-287 (1949); Original Instructions dated 28 February 1949. Supplemental Instructions dated 24 August 1950; Director's letter referenced 22/MEK, dated 27 April 1951.

B - SURVEY LIMITS AND DATES:

The area covered by this survey is the northern portion of Pocomoke Sound, North of Lat. 37-52.0, and East of the Fox Islands. Junctions are made with hydrographic survey Sheet ^{H-7946(1951)} CO-2351 on the NE ^{H-7944(1951)} AND Sheet CO-2151 on the W. The survey also makes a junction with ^(CO-1149) hydrographic Sheet H-7722, 1949, at Broad Creek and at Cedar Straits. Field work was accomplished during the period 13 June - 30 July 1951 inclusive. The work progressed satisfactorily, what delays that were experienced were caused by haze and fog obscuring the signals and southwesterly winds kicking up rough seas, and these only in the normal amount to be expected.

C - VESSEL AND EQUIPMENT:

Thirty-foot launch #102 and 25 foot skiff #737 were used. Both were based at Ape Hole, Md., during the period of the survey.

C - VESSELS AND EQUIPMENT: (CONT.)

Launch #102 used 808 type portable fathometer No. 63, and was used in general in depths exceeding 6 feet. Skiff #737, powered by two outboard motors and utilizing pole or leadline for sounding, was used in shoal areas where depths were not sufficient for launch operation.

D - TIDE AND CURRENT STATIONS:

All tide reducers for this survey were taken from the Ape Hole tide gage, located at Lat. 37-57.7 N; Long. 75-49.3. The M L W datum was determined by the Washington Office, and the hourly heights scaled from the marigrams by the Ship COWIE'S personnel. No time or range corrections were applied.

No current stations were observed within the area of this survey.

E - SMOOTH SHEET:

This information will be supplied by the processing office.

F - CONTROL STATIONS:

The following triangulation stations were recovered and used:

OLDS 2 (VFC) (MD) 1936

SCOT 2 (VFC) (MD) 1936-42

GAP (VFC) (MD) 1916-42

WATERMELON HUMMOCK (MD) 1849-1942 (WATERMELON 1907)(MSFC)

ELIZZARD ISLAND RANGE 1916-42

SHAD (VFC) (VA) 1936-42

MATTHEWS (VA) 1934

see P.O.
list

F - CONTROL STATIONS: (CONT.)

BUTLER 2 (VFC) (VA) 1936-42
SAXIS CHURCH SPIRE 1942
STARLING (VFC) (VA) 1904-42
BACK (VFC) (VA) 1936-42
NORTH POINT (VFC) (VA) 1936-42
HAMMOCK (VFC) (VA) 1936-42
DEEP HOLE (VFC) (VA) 1936-42
WIDOW (VFC) (VA) 1936-42
SOUTH POINT (VFC) (VA) 1936-42
TIM (VFC) 1936-42

Topographic control stations are from air photographic surveys
T-8162(1942) , T-8166(1942)
T-8149, T-8160, T-8161, T-8163 and T-8164.

Hydrographic stations were located by intersection of sextant cuts or by three point sextant fix and check angle. (See Vol. I, Pages 2 - 8, for list and location of signals). Topographic locations of 1942 air photo stations, N.E. GABLE and ALL are unsatisfactory. Station OAK was located using these stations. N.E. GABLE and ALL were relocated on hydrographic survey CO-2151 and this relocation should be used on this sheet. (Positions of N.E. Gable and All redetermined by 1952 Δ)

G - SHORELINE AND TOPOGRAPHY:

The shoreline on the boat sheet was transferred from the air-photo compilations covering the area (T-8149, T-8160, T-8161, T-8162 and T-8164)^(all 1942). Erosion is apparent along the exposed shoreline. The following is a list of the points that the shoreline will need revising on the smooth sheet: 1. The point^(Lang Point) southwest of Drum Bay. The point has eroded and is now an island.

G - SHORELINE AND TOPOGRAPHY: (CONT.)

The present shoreline is shown in red ink and was obtained by running a sounding line parallel to the beach at highwater. The islands shown on Chart 1224, just west of the Point no longer exist.

2 - ^{Big}~~Big~~ Island on the southwest point of Ape Hole Creek just northeast of signal WEB has built up to the westward and the present shoreline is shown by a ^{dashed} ~~dotted~~ line in ^{red} ~~black~~ ink. This was sketched in by the hydrographer while running a sounding line parallel to the beach at high water.

3 - The southeast point of Great Fox Island has eroded and is now shown by ^{dashed} ~~dotted~~ line in ^{red} ~~black~~ ink. The island shown just off the point is now completely washed away.

4 - Little Ledge Island shown on Chart 1224 no longer exists. ^(Lat 37°53.3' Long 75°53')

5 - Piers shown on Chart 1224 on the west side of Ape Hole do not exist.

It was not practicable to define the entire low water line by sounding 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 it was possible to run a line of soundings of one foot or less parallel to the beach except for some shoal stretches where deeper water extended in close to the high water line.

H - SOUNDINGS:

Depths were measured with 808 type recording fathometer, hand-lead and pole. Bar checks were taken as necessary.

Overlap between fathometer, pole and leadline soundings were satisfactory, No unusual corrections were applied.

see
REVIEW
P's 2 + 7c

I - CONTROL OF HYDROGRAPHY:

Three-point sextant fixes taken upon shore signals in the usual manner were used to control the hydrography.

J - ADEQUACY OF SURVEY:

The survey is complete and 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.

K - CROSSLINES:

Crosslines are in good agreement, the percentage is estimated at 5 percent.

L-M - COMPARISON WITH PRIOR SURVEYS:

A comparison with Chart 1224 shows the following:

1 - To the west of Red Lighted Channel Buoy No. 6, Lat. 37-52.5 N; Long. 75-49.3 W: the water has shoaled and the ¹²10 foot curve extends further west.

2 - ^{An}Two 11 foot soundings ^{was}were found in Lat. 37-53.1 N; Long. 75-49.2 W. and _{2 10' soundys}Lat. 37-53.2 N.; Long. 75-48.9 W; which is shoaler than the charted depths.

3 - The dredged channel into Starling Creek shown 7 feet in 1948. This has shoaled to ⁶5 feet _{on the present survey.}

4 - The dredged channel in the south entrance of Broad Creek shows a least depth of 6 feet in 1949-50, which is in agreement with a line of soundings run along the centerline of the channel. _{7' present survey.}

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

5 - The deep hole shown on chart between Great Fox Island and Little Fox Island known as Great Thorofare has shoaled to a depth of ¹²4 feet. *Shitted only.*

6 - Cedar Straits between Great Fox Island and the peninsula has shoaled ^{to} until a depth of only ^{0 ft MLW}1 foot ~~can be carried.~~

7 - The remainder of the survey is in general agreement with the chart.

*see review
P's 546*

N - DANGERS AND SHOALS:

The area of this survey is relatively unimportant for general navigation due to shoalness of the water, and is used mostly by local fishing vessels and pleasure craft with shoal draft.

The one exception is the channel leading to the Pocomoke River which is used by tugs and barges. The drafts of these vessels are limited to 7 feet due to the controlling depth in the dredged channel.

No new shoals or dangers were found except those listed in L-M.

O - COAST PILOT NOTES:

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

P - AIDS TO NAVIGATION:

1 - Fixed Aids (From Light List Atlantic & Gulf Coast 1951)

a - No. 2280 (Green Harbor) in 7 feet, east side of south entrance to Broad Creek. Lat. 37-54.97 N, Lat. 75-50.757W. (Pos. 36, page 6, Vol. I).

P - AIDS TO NAVIGATION: (CONT.)

b - No. 2289, Broad Creek South Entrance, in 3 feet, east side of south entrance to Broad Creek, Lat. 37-55.33 N, Long. 75-51.08 W: (Pos. 34, page 6, Vol. I).

c - No. 2282 North End Point, in 8 feet, at entrance to channel to Saxis Island. Lat. 37-56.30 N, Long. 75-43.70 W: (Pos. 9, pg. 3, Vol. I).

d - No. 2281 Starling Creek 1, in ⁸9 feet, at east entrance to dredged channel to Starling Creek, Lat. 37-55.46 N., Long. 75-44.20 W. (Pos. 7, page 3, Vol. I).

2 - Floating Aids:

a - No. 2279 Funnel Island Spit Lighted Buoy 6, in 17 feet, on point of shoal between Messongo Creek and Pocumoke River. Lat. 37-52.⁴⁴~~50~~ N., Long. 75-49.²²~~15~~ W. (Pos. 96-p, page 53, Vol. XIII).

b - Broad Creek Buoy No. 7, in 19 feet, Lat. 37-53.⁵⁵~~56~~ N, Long. 75-48.⁶⁴~~61~~ W., (Pos. 165-g, page 44, Vol. XV).

c - Broad Creek Buoy No. 4, in 6 feet, east side of channel southern entrance to Broad Creek, Lat. 37-55.1²~~3~~ N., Long. 75-50.90 W. (Pos. 35, page ⁶4, Vol. I).

d - Black and White Spar 30-B, in 12 feet, Lat. 37-54.52, Long. 75-46.³~~45~~ W., (Pos. 20, page 4, Vol. I).

e - Messongo Point Shoal Buoy No. 9, in 8 feet, Lat. 37-56.10 N., Long. 75-44.60 W., (Pos. 39-m, page 26, Vol. XII).

f - Billys False Bar Buoy No. 2, Messongo Creek, in 9 feet, Lat. 37-53.07 N, Long. 75-44.15 W. (Pos. 48, page 7, Vol. I).

g - Gosling Rock Buoy No. 1., Messongo Creek, in ⁶7 feet, Lat. 37-53.34 N., Long. 75-43.65 W. (Pos. 47, page 7, Vol. I).

P - AIDS TO NAVIGATION: (CONT.)

h - Flat Rock Buoy No. 4, Messongo Creek, in 8 feet, Lat. 37-53.43, Long. 75-43.13⁶ W. (Pos. 46, page 6, Vol. I).

None of the "C" or "D" Spar Buoys marking the Maryland-Virginia line were found.

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 Chart 1224 for this area are adequate and no additional names are recommended.

U-Y - MISCELLANEOUS:

A duplicate boat sheet was made of the area. This was done so both the launch and hydrographic skiff could work on the survey simultaneously.

Soundings were spaced 30 seconds apart on the boat sheet. All intermediate soundings are entered in the sounding volumes and are plotted on the boat sheet only as needed to define the underwater features.

In featurless flat areas, sounding lines are spaced up to 200 meters, in accordance with paragraph 9 of the Instructions.

The tide gage and all soundings are Eastern Standard Time.

Z - TABULATION OF APPLICABLE DATA:

The Coast Pilot Report; List of Fixed Aids to Navigation on Form 567 and Landmarks for Charts have been forwarded to the Washington Office.

A list of signals is attached to page 3, Vol. I, sounding records.

A tabulation of other data is attached.

Respectfully submitted,

G. C. Mast
G. C. Mast,
Comdr. USC&GS.

Approved and forwarded,

John Bowie, Jr.
John Bowie, Jr.,
Comdr. USC&GS.,
Comdg. Ship COWIE.

STATISTICS

FOR HYDROGRAPHIC SURVEY H-7945, FIELD NO. CO-2251

SHIP COWIE

PROJECT CS-287

LAUNCH 102

<u>VOL. NO.</u>	<u>DAY</u>	<u>DATE</u>	<u>NO. OF POS.</u>	<u>STAT. MI.</u>
1	a	6/13	96	24.5
1,2	b	6/14	165	51.6
3,4	c	6/20	147	26.3
4	d	6/21	145	26.1
5	e	6/22	122	30.1
5,6	f	6/25	141	41.7
6,8	g	6/26	149	45.5
8	h	6/28	110	24.0
8,10	k	7/2	178	44.7
10,12	l	7/3	169	43.0
12	m	7/4	106	25.5
13	n	7/10	167	43.7
13	p	7/11	165	43.2
15	g	7/12	165	38.4
15	r	7/13	88	22.0
18	s	7/17	200	52.4
<u>TOTALS:</u>			2345	591.1

STATISTICS:(CONT.)SKIFF NO. 737

<u>VOL. NO.</u>	<u>DAY</u>	<u>DATE</u>	<u>NO. OF POS.</u>	<u>STAT. MI.</u>
3	a	6/18	6	1.6
3	b	6/19	19	4.6
3	c	6/25	129	22.9
7	d	6/26	116	18.3
7,9	e	6/28	162	32.5
9	f	6/29	125	22.3
9,11	g	7/2	119	15.4
11	h	7/3	141	34.5
11,14	j	7/10	131	30.6
14,16	k	7/11	143	30.5
16	l	7/12	150	26.2
18,18	m	7/13	91	23.3
17	n	7/16	177	31.3
17,19	p	7/17	200	31.7
18,19,20	q	7/18	217	36.0
20	r	7/19	164	32.4
20,21	s	7/20	130	18.2
21	t	7/23	160	36.9
21	u	7/25	5	0.9
21,22	v	7/26	43	8.0
22	w	7/27	54	9.7
23	x	7/30	61	9.2

TOTAL: 2543 477.0

Grand Total: 4888 1068.1

AREA: 59.7 Sq. Stat. Mi.

FATHOMETER CORRECTIONS

HYDROGRAPHIC SURVEY H _____, FIELD NO. CO-2251

FATHOMETER NO. 63, 808 MODEL

<u>a - day</u>		<u>k - day</u>	
No corrections		0-12 ft.	0.0 ft.
<u>b - day</u>		12.1 - 15 ft.	-0.2 ft.
0-6 ft.	∕ 0.4 ft.	15.1 - over	- 0.4 ft.
6.1 - 9 ft.	∕ 0.2 ft.	<u>l - day</u>	
9.1 - over	0.0 ft.	0.7 ft.	∕ 0.4 ft.
<u>c - day</u>		7.1 - 9 ft.	∕ 0.2 ft.
0 - 8 ft.	∕ 0.4 ft.	9.1 - 13 ft.	0.0
6.1 - 9 ft.	∕ 0.2 ft.	13.1 - over	- 0.2 ft.
9.1 - over	0.0 ft.	<u>m - day</u>	
<u>d - day</u>		No corrections (means No Bar Check)	
0-7.5 ft.	∕ 0.2 ft.	<u>n - day</u> (7/10/51)	
7.6 over	0.0 ft.	No corrections "	
<u>e - day</u>		<u>p - day</u>	
No corrections		No corrections "	
<u>f - day</u>		<u>q - day</u> (7/12/51)	
No corrections		0-11 ft.	0.0 ft.
<u>g - day</u>		11.1-14 ft.	-0.2 ft.
0-7.5 ft.	∕ 0.2 ft.	14.1-17 ft.	-0.4 ft.
7.6 - over	0.0 ft.	17.1 - over	-0.6 ft.
<u>h - day</u>		<u>r - day</u>	
No corrections		0-12 ft.	0.0 ft.
<u>j - day</u>		12.1-17.5	-0.2 ft.
No corrections		17.5 - over	-0.4 ft.
<u>s - day</u>			
0-7 ft.		∕ 0.4 ft.	
7.1 - 9 ft.		∕ 0.2 ft.	
9.1 -15 ft.		0.0 ft.	
15.1-over		-0.2 ft.	

LIST OF SIGNALS
H-7945

TRIANGULATION STATIONS

ALL	ALL, 1952
BACK	BACK (VFC)(VA), 1936-42
BLIZ	BLIZZARD ISLAND RANGE, 1916-49
BUT	BUTLER 2 (VFC) (VA.), 1936-42
STAND	CRISFIELD, STANDPIPE, 1932-42
DEEP	DEEP HOLE (VFC) (VA.), 1936-42
EAST	EAST (MSFC) (MD.), 1898-1949
GAB	GABLE, 1952
GAP	GAP (VFC) (MD.) 1916-42
HAM	HAMMOCK (VFC) (VA.), 1936-42
JANE	JANES ISLAND, LIGHTHOUSE, 1949
MAT	MATTHEWS (VA.), 1934
NORTH	NORTH POINT (VFC) (VA.), 1936-42
OLD	OLDS 2 (VFC) (VA.), 1936
SAX	SAXIS CHURCH SPIRE, 1942
SCOT	SCOT 2 (VFC) (MD.), 1936-42
SHAD	SHAD (VFC) (VA.), 1936-42
SOUTH	SOUTH POINT (VFC) (VA.), 1936-42
STACK	STACK, SOMERS COVE, 1949
STAR	STARLING (VFC) (VA.), 1904-42
TIM	TIMS (VFC) (VA.), 1936-42
MELON	WATERMELON HUMMOCK (MD.), 1849-1942
WIDOW	WIDOW (VFC) (VA.), 1936-42

RECOVERABLE TOPOGRAPHIC STATIONS

CAT	CATTAIL, 1942 (T-8166) ✓
HUT	HUT, 1942 (T-8162) ✓

HYDROGRAPHIC STATIONS

Ape	Vol. 1, pg. 5	Her	Vol. 1, pg. 4	Rock	Vol. 1, pg. 6
Bay	" " " 3	Hip	" " " 5	Rum	H-7946
Ben	" " " 5	Hole	" " " 5	Sam	Vol. 1, pg. 5
Bit	" 3, " 54	Key	" " " 3	Tail	" " " 6
Bub	" 1, " 7	Lab	" " " 3&6	Tim	H-7944
Bun	" " " 4	Lad	" " " 3	Tin	Vol. 1, pg. 4
Cob	" " " 6	Mac	" " " 5	Tit	" " " 4
Creek	H-7946	Mop	H-7946	Trap	" " " 4
Cut	Vol. 1, " 7	Oak	Vol. 1, pg. 7	Web	" " " 5
Dog	" " " 4	Pan	" " " 4	Wet	" " " 7
Egg	" " " 4	Pan	H-7944	Wig	H-7946
Ella	" " " 3	Par	Vol. 1, pg. 5	Win	Vol. 1, pg. 5
Erg	" " " 6	et	H-7946	Wop	" " " 7
Fin	" " " 5	Pig	Vol. 1, pg. 4	Yel	" " " 5
Fox	" " " 6	Pine	H-7946	Yen	" " " 3
Gal	" " " 3	Rad	Vol. 1, pg. 6		
Hat	" " " 3	Red	" " " 4		

T I D E N O T E

HYDROGRAPHIC SURVEY H _____, FIELD NO. CO-2251

Tide reducers for this survey were taken from the Ape Hole, Md. Tide Gage. Lat. 37-57.7N., Long. 75-49.3 W. M L W was determined by the Washington Office as 1.5 feet above the zero of staff. No time or height corrections were applied to the observed tides. Hourly heights were scaled from the mari-grams by personnel of the Ship COWIE.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
TO BE DELETED

STRIKE OUT ONE

Norfolk Va.

June 29, 1953

I recommend that the following objects which have (have not) been inspected from seaward to determine their value as landmarks be charted on (deleted from) the charts indicated.
The positions given have been checked after listing by *A. Kappa*

CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION		DATUM	METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
			LATITUDE ° ' "	LONGITUDE ° ' "							
✓ 2287	Janes Island	Jane	37 57	1471.1	75 55	189.0	H.A. 1927				1224
✓ 2288	Broad Creek South Entrance	TRK	37 55	602.0	75 51	104.0	Hydro. CO-2281				1225 A 1224 1225A
✓ 2289	Green Harbor	Red	37 54	1768.0	75 50	1124.0	"				1224 1225 A 1226
✓ 2291	Swirling Creek 1-	Red	37 55	848.0	75 44	286.0	"				1224
✓ 2282	North End Point	Red	37 56	558.0	75 43	1040.0	"				1224
2285	Pocomoke River 1	Red	37 57	690.0	75 42	1182.0	Hydro. CO-2281				"
	Pocomoke River Daybeacon 2	"	"	"	"	"	"				"
	" " " 3	"	"	"	"	"	"				"
	" " " 4	"	"	"	"	"	"				"
2284	Pocomoke River 6	"	"	"	"	"	"				"
	Pocomoke River Daybeacon 7	"	"	"	"	"	"				"
	" " " 8	"	"	"	"	"	"				"
2286	Pocomoke River 10	"	"	"	"	"	"				"

Chief of Party

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and nonfloating aids should be reported on this form. The data should be considered for the charts of the area and not by other means.

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-7945 (Field No. Co-2251)

CONTROL

No difficulty was experienced plotting the control on this survey as the sextant cuts locating hydrographic stations checked in very well. However, a great many weak fixes were used to control hydrography in the vicinity of Lat. 37-53, Long. 75-49. The bottom is very irregular in this area making it difficult to adjust these weaker fixes to the surrounding hydrography. Soundings at crossings checked fairly well and it is believed the adjustment of the weak fixes has been accurate enough for charting purposes. According to field notes, this area was sounded during unfavorable weather conditions and the choice of signals was frequently limited by poor visibility.

TOPOGRAPHY

The positions of Great Fox Island and Little Fox Island were adjusted bodily to agree with the new triangulation locations of stations GAB and ALL. As the original positions of these islands were determined by a radial plot from marked topographic stations, it is apparent that the geographic displacement is the same as the displacement of the topo stations. Minor changes in shoreline were transferred from H-7944.

The following are minor shoreline changes shown on boat sheet but not listed in the descriptive report:

Lat. 37-54.6	Long. 75-43.4	Small island. Pos. 90 to 91g (blue)
Lat. 37-55.65	Long. 75-50.24	Small island. Pos. 61m (blue)
Lat. 37-52.28	Long. 75-41.37	Small island. Pos. 36 to 39j (blue)
Lat. 37-58.67	Long. 75-49.08	Shoreline change. Pos. 144g (blue)
Lat. 37-52.30	Long. 75-42.95	Sand bar. 108 to 112k (blue)
Lat. 37-52.29	Long. 75-43.08	Sand bar. Pos. 95 to 96h (blue)
Lat. 37-54.45	Long. 75-53.80	Sand bar. Pos. 116 to 124r (blue)
Lat. 37-55.13	Long. 75-43.81	Fenced area. Pos. 27 to 35g (blue)
Lat. 37-54.70	Long. 75-53.60	Shoal area. Pos. 33 to 37s (blue)
Lat. 37-55.15	Long. 75-53.72	Shoreline change. xxx . See boat sheet
Lat. 37-54.97	Long. 75-53.15	Shoreline change. See boat sheet.

Respectfully submitted,

Hugh L. Proffitt
Hugh L. Proffitt
Cartographer.

Norfolk, Va.
6 July 1953

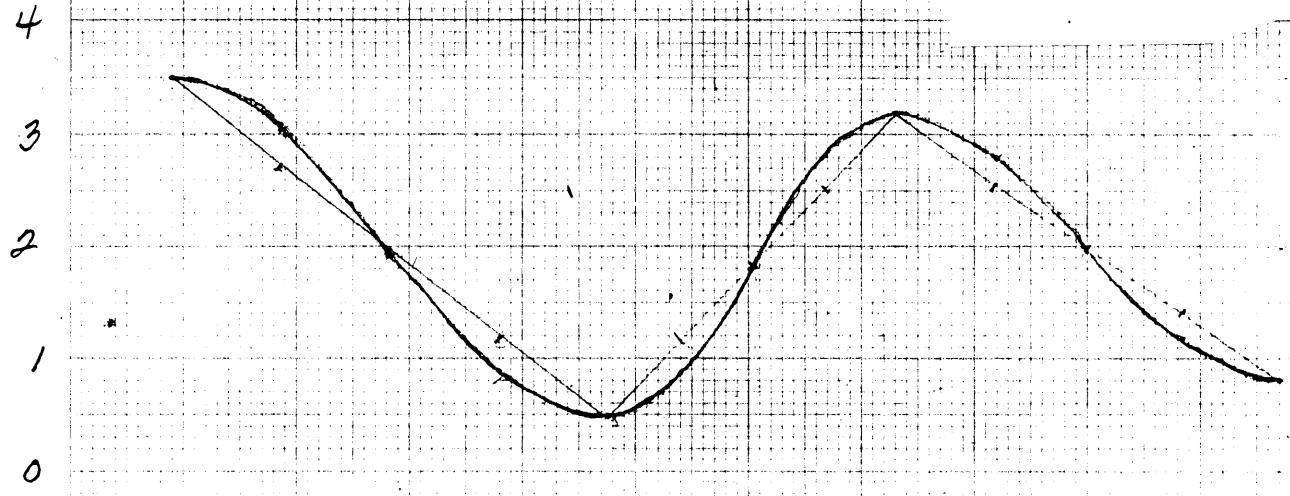
Approved & forwarded:

Earle A. Dally
Earle A. Dally
Supervisor, S.K. District.

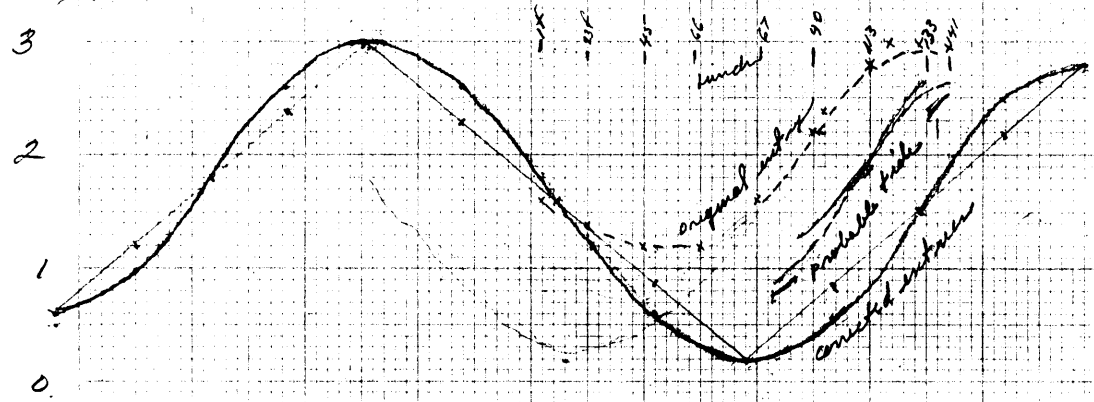
Station: *June 22, 1954*

0 1 2 3 4 5 6 7 8 9 10 11 noon 12 13 14 15 16 17 18 19 20 21 22 23 24

Whiston



June 25, 1951



RAC

TIDE NOTE FOR HYDROGRAPHIC SHEET

27 July 1953

~~DIVISION OF COASTAL SURVEYS~~

Division of Charts: R. H. Carstens

Plane of reference approved in
23 volumes of sounding records for

HYDROGRAPHIC SHEET 7945

Locality: Pocomoke Sound, Chesapeake Bay

Chief of Party: J. Bowie, Jr. in 1951
Plane of reference is mean low water, reading
1.5 ft. on tide staff at Ape Hole
4.5 ft. below B. M. 1 (1951)

Height of mean high water above plane of reference is 2.3 feet.

Condition of records satisfactory except as noted below:

NOTE: Tide reducers for positions 34f - 141f inclusive in
volumes 5 and 6 and positions 26c - 129c inclusive in volume 3
have been revised in red, these revisions have been verified.

(See Verifiers Report)

E.C. McKay
Section of Tides

Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES

Survey No. H-7945

Name on Survey	Source									
	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>Maryland</u>			(for title)						B.G.M.	1
<u>Virginia</u>			" "						"	2
<u>Chesapeake Bay</u>			" "						"	3
<u>Pocomoke Sound</u>			" "							4
<u>Cattail Creek</u>										5
<u>Messongo Creek</u>										6
<u>Back Creek</u>										7
<u>Back Cove</u>										8
<u>Drum Bay</u>										9
<u>Fishing Creek</u>			(Virginia)							10
<u>Starling Creek</u>										11
<u>Saxis</u>										12
<u>North End Point</u>										13
<u>Tulls Point</u>									B.G.M.	14
<u>East Creek</u>										15
<u>Grunby Creek</u>										16
<u>Ape Hole Creek</u>			(tide station)							17
<u>Horse Creek</u>										18
<u>Johnson Creek</u>										19
<u>Big Island</u>										20
<u>Massey Creek</u>										21
<u>Broad Creek</u>										22
<u>Crooked Creek</u>										23
<u>Cedar Island Creek</u>										24
<u>Cedar Straits</u>										25
<u>Great Fox Island</u>										26
<u>Great Thorobaro</u>										27
									Names approved 12-7-53 L. Heck	M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. *H-7945*...

Records accompanying survey:

Boat sheets ¹(~~2 Parts~~) sounding vols. *23*.....; wire drag vols.;
 bomb vols.; graphic recorder rolls ⁹Env.;
 special reports, etc. ¹Smooth Sheet; ¹Descriptive Report;.....

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

Number of positions on sheet		<i>4888</i>
Number of positions checked		<i>92</i>
Number of positions revised		<i>14</i>
Number of soundings revised (refers to depth only)		<i>1005</i>
Number of soundings erroneously spaced		<i>0</i>
Number of signals erroneously plotted or transferred		<i>0</i>
Topographic details	Time	<i>8</i>
Junctions	Time	<i>11</i>
Verification of soundings from graphic record	Time	<i>8</i>

Verification by *F.P. SAULSBURY*..... Total time *225* Date *2-14-55*

Reviewed by..... *A.R. STIRNI*..... Time *66* Date *3/17/55*

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

REGISTRY NO. H-7945

FIELD NO. CO-2251

Maryland and Virginia, Chesapeake Bay, Pocomoke Sound

Project CS-287

Surveyed - June, July, 1951

Scale 1:20,000

Soundings:

Control:

808 Fathometer
Sounding Pole
Leadline

Sextant fixes on
shore signals

Chief of Party - John Bowie, Jr.
Surveyed by - G. C. Mast, E. A. Taylor
Protracted by - M. M. Smith
Soundings plotted by - A. Kaupa
Verified and inked by - F. P. Saulsbury
Reviewed by - A. R. Stirni 3/14/55
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline applied in black originates with air-photographic surveys T-8160 (1942), T-8161 (1942), T-8162 (1942), T-8164 (1942), and T-8166 (1942).

Revisions to the shoreline from the present survey are shown in solid red or dashed red in accordance with paragraph 753 of the Hydrographic Manual. As noted in the review of H-7944 Great Fox Island and Little Fox Island have been shifted in position to conform to revisions in control. Revisions applied in solid red indicates shifts in control whereas revisions in dashed red indicate estimated changes caused by erosion.

The sources of the control are given in the Descriptive Report.

2. Sounding Line Crossings

Sounding line crossings are in adequate agreement. Revisions of 1-2 ft. in depth were made during verification which improved not only crossings but also junctions between pole soundings and fathometer soundings.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated. The area surveyed is a shallow basin almost entirely covered by depths of less than 12 ft. The bottom is characterized by undulating sand ridges, which have been emphasized by the 3-ft. depth curve. Deeper depths of 18 to 30 ft. occur in the main channel of Pocomoke Sound in the south central portion of the survey.

4. Junctions with Contemporary Surveys

Satisfactory junctions were effected with surveys H-7946 (1951) on the east and H-7944 (1951) on the southwest. A comparison was made with the preliminary verification of H-7722 (1949) on the northwest, however, the junction will be discussed in the review of H-7722, after verification has been completed. No contemporary registered surveys are available on the south, but present survey depths are in general agreement with charted depths in this area.

5. Comparison with Prior Surveys

H-515 (1855), 1:10,000	H-2397 (1875), 1:9,600
H-993 (1869), 1:20,000	H-2801 (1906-07), 1:20,000
H-997 (1869), 1:20,000	<u>H-2899 (1907), 1:20,000</u>
<u>H-1004 (1869), 1:20,000</u>	

The best prior coverage of the area surveyed is furnished by H-2397, H-2801 and H-2899. A comparison between the prior and present surveys reveals random depth changes of 1 to 2 ft. on the shoal flat areas caused by the action of currents on the sand bottom. In the deeper part of the main channel of Pocomoke Sound, however, a progressive shoaling trend is evident. Depths here, on the present survey are as much as 10 ft. shoaler than depths on the prior surveys. The shoaling trend no doubt results from the deposition of silt carried into Pocomoke Sound from the Pocomoke River and the various other creeks which drain into the Sound. The following instances of shoaling are noted:

<u>Location</u>		<u>Prior Survey</u>	<u>Present Survey</u>
<u>Latitude</u>	<u>Longitude</u>	<u>Depths</u>	<u>Depth</u>
37°54.5'	75°48.6'	18 - 20 ft.	15 - 16 ft.
37°53.3'	75°48.5'	32 - 35 ft.	27 - 28 ft.
37°52.6'	75°49.7'	24 - 30 ft.	19 - 21 ft.

At lat. 37°53.45', long. 75°43.37', two 4-ft depths have been carried forward to the present survey from H-2899 (1907). These two soundings fall in present depths of 7-8 ft. In the immediate vicinity however, are other hard shoals of similar

nature which were revealed by H-2899 and verified by the present survey.

The present survey with the addition of the two 4-ft depths and bottom characteristics carried forward from H-2899 is adequate to supersede the prior surveys.

6. Comparison with Chart 568 (Latest print date 8/23/54)

A. Hydrography

The charted hydrography originates with the present survey prior to verification and review. Numerous smooth sheet depths have been revised from 1-2 ft. during verification. These revisions have appreciably altered the delineation of the depth curves particularly in the vicinity of lat. $38^{\circ}57.6'$, long. $75^{\circ}46.0'$, and lat. $37^{\circ}53.3'$, long. $75^{\circ}43.5'$. Attention is also directed to the uncharted 4-ft. soundings in the Messongo Creek Channel at lat. $37^{\circ}53.45'$, long. $75^{\circ}43.37'$, which, as noted in paragraph (5), have been carried forward from H-2899 (1907).

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 lighted buoy 6, charted in lat. $37^{\circ}52.38'$, long. $75^{\circ}49.13'$ which is located about 180 meters northwestward on the present survey. The present survey position more adequately marks the shoal in this area.

C. Dredged Channels

Present survey depths in Broad Creek Channel in lat. $37^{\circ}56.0'$, long. $75^{\circ}51.5'$ are in harmony with the controlling depth charted from the survey of the Corps of Engineers reported in Chart Letter 751 (1950).

The controlling depth of 3 ft. in Starling Creek at lat. $37^{\circ}55.2'$, long. $75^{\circ}44'$ is from Chart Letter 694 (1954) based on a Corps of Engineers survey of March 1954 made subsequent to the present survey.

7. Condition of Survey

A. The sounding records and Descriptive Report are complete and comprehensive.

B. The protracting of fixes, in general, was accurately done. As noted in the addendum to the Descriptive Report, poor visibility in the vicinity of lat. $37^{\circ}53'$, long. $75^{\circ}49'$

necessitated the selection of signals which plotted weak fixes. The lines controlled by weak fixes were adjusted to effect the best possible agreement with surrounding hydrography.

- C. In the northeastern part of Pocomoke Sound and in a few other areas, fathometer soundings were 1-ft. shoaler than abutting pole soundings. In order to depict a more natural bottom configuration about 8 miles of fathometer soundings were brought into agreement with pole soundings by adding a correction of 1-ft. to the fathometer depths. Twenty-seven miles of sounding line were also revised in depth as much as 2 ft. due to the erroneous application of tide corrections on soundings of one day and also to compensate for the affect of a strong northwest wind on the tidal plane.

8. Compliance with Project Instructions

The survey adequately complies with Project Instructions.

9. Additional Field Work

This is a good basic survey and no additional field work is recommended.

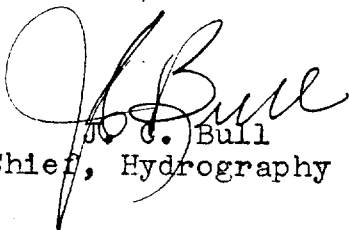
Examined and Approved:



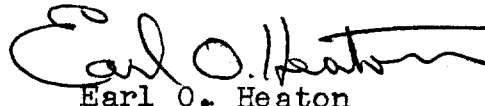
H. R. Edmonston
Chief, Nautical Chart Branch



E. R. McCarthy
Acting Chief, Chart Division



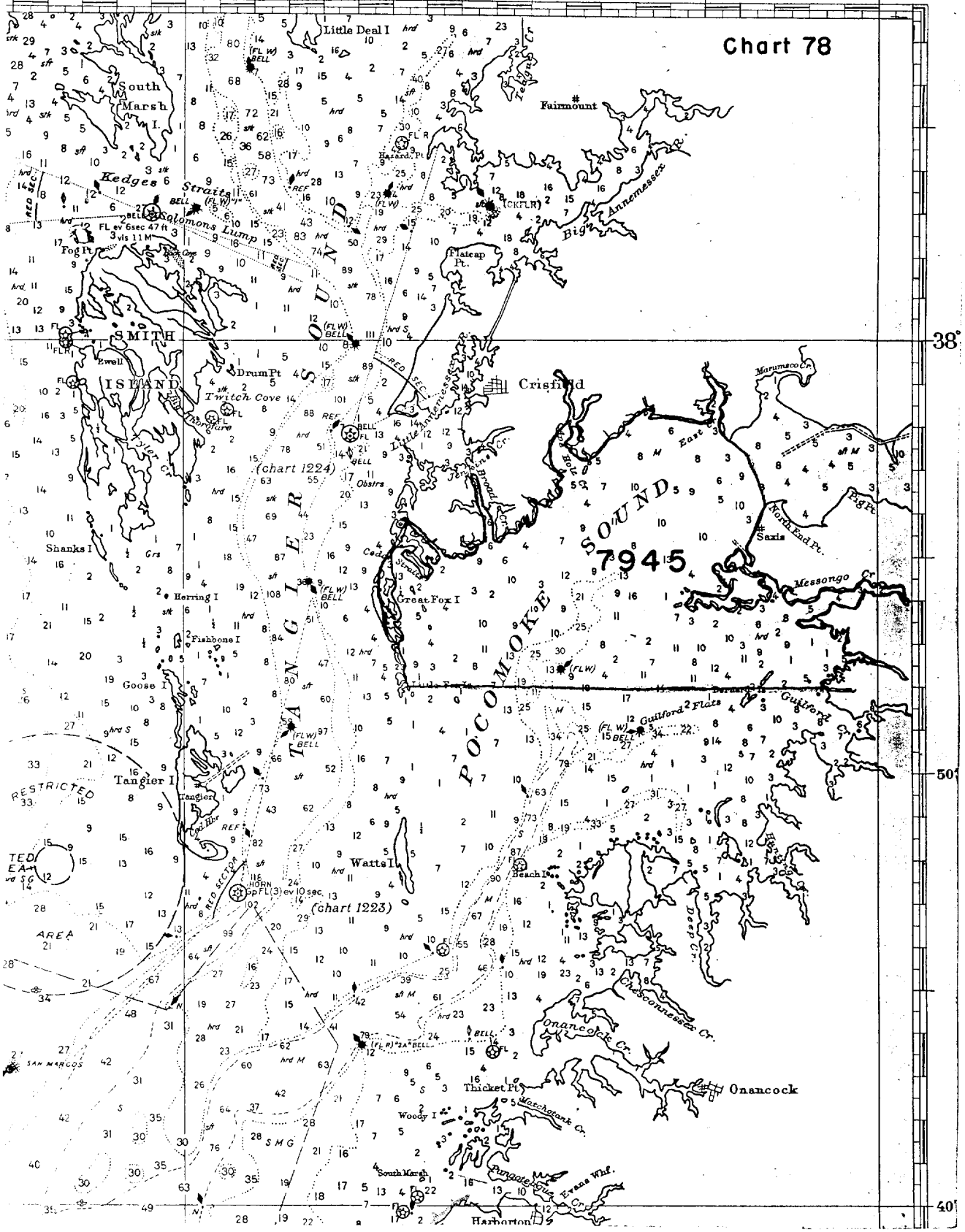
J. C. Bull
Chief, Hydrography Branch



Earl O. Heaton
Chief, Division of Coastal Surveys

76° 50' 40'

Chart 78



38°

50'

40'

NAUTICAL CHARTS BRANCH

SURVEY NO. H-7945
Reviewed 3-14-55

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
7/14/53	1224 <i>Reconstr.</i>	<i>JHE</i>	Before After Verification and Review
9/10/53	568	<i>J. Evans</i>	Before After Verification and Review
11/6/53	1223	<i>Sam</i>	Before After Verification and Review (Partially applied)
2/18/54	1224	<i>JHE</i>	Before After Verification and Review <i>part. app'n</i>
6/12/57	568	<i>JHE</i>	<i>completely appld</i> Before After Verification and Review
1/2/58	1224	<i>JHE</i>	Before After Verification and Review <i>Considered as completely applied - after nearly 7 years it is considered not justified to revise to agree perfectly with reviewed survey of 1/27/58</i>
2-20-59	1223	<i>R.K. De Lande</i>	Before After Verification and Review <i>then chart 568</i>
3-18-59	1224	<i>R.K. De Lande</i>	Before After Verification and Review <i>then chart 568 and 1223</i>
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
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			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

Stylus on Fatty acids
is long