8012

Diag. Cht. No. 1222-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. PBS-H-4150 *Office No.* H-8012

LOCALITY

State VIRGINIA

General locality LOWER CHESAPEAKE BAY

Locality OFF CAPE CHARLES CITY

19X 50-52

CHIEF OF PARTY

G. R. Fish & J. H. Brittain

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DATE JAN 5 1953

8-1870-1 (1)

8012

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-8012

Field No. PBS-H-4150

State VIRGINIA

General locality LOWER CHESAPEAKE BAY

Locality OFF CAPE CHARLES CITY

Scale 1:~~40~~20,000 Date of survey 19 April to 26 October 1950 & Oct. 1952

Instructions dated 26 July 1948 - 11 September 1950

Vessel Ship's PARKER & COWIE

Chief of party G. R. Fish & J. H. Brittian

Surveyed by Ships' Officers

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

Fathograms scaled by Ship's Personnel

Fathograms checked by " "

Protracted by Ben T. Lewis

Soundings penciled by Ben T. Lewis

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

REMARKS: This survey is incomplete and requires additional work.

See Descriptive Report submitted by Ship COWIE for completion of this survey. (enclosed herewith)

U. S. GOVERNMENT PRINTING OFFICE 693019

784

Form 537
(Ed. Nov. 1941)

REG. NO.

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-8012

Field No. PBS-4150

State VIRGINIA

General locality CHESAPEAKE BAY

Locality Northwest of Cape Charles Harbor,

Scale 1/20,000 Date of survey October 1952

Instructions dated 13 March 1952

Vessel U.S.C. & G.S. SHIP COWIE

Chief of party J. H. Brittain

Surveyed by Ship's Officers

Soundings taken by fathometer, ~~graphic recorder, hand lead, wire~~ Portable 808

Protracted by Ben T. Lewis

Soundings penciled by Ben T. Lewis

Soundings in ~~fathoms~~ feet at MLW ~~MLLW~~ (in back of Desc. Report)

REMARKS: This report covers additional hydrography in area originally surveyed by PARKER, BOWEN and STIRNI in 1950.

U. S. GOVERNMENT PRINTING OFFICE 428975

SETTLEMENT & SQUAT CORRECTIONS

PBU

SPEED (RPM)	CORRECTION (FEET)	FROM DEPTH TO DEPTH (FEET)
400	0.2	all depths
450	0.2	all depths
500	0.2	all depths
600	0.4	6.0 to 14.5
	0.2	15.0 &over
650	0.4	11.5 to 17.0
	0.2	17.5 & over
700	0.6	12.5 to 15.0
	0.4	15.5 to 19.5
	0.2	20.0 & over
750	0.8	12.5 to 14.0
	0.6	14.5 to 16.5
	0.4	17.0 to 21.5
	0.2	22.0 to 31.5
	0.4	32.0 & over
800	1.0	12.5 to 13.0
	0.8	13.5 to 15.5
	0.6	16.0 to 19.0
	0.4	19.5 & over
850	1.0	12.5 to 13.5
	0.8	14.0 to 16.5
	0.6	17.0 to 22.5
	0.4	23.0 & over
900	1.0	12.5 to 14.5
	0.8	15.0 to 20.5
	0.6	21.0 to 34.0
	0.4	34.5 & over
1000	1.0	6.0 to 21.5
	0.8	22.0 to 31.5
	0.6	32.0 & over

ABSTRACT OF BAR CHECKS

FATHOMETER NO. 120-S Ship PARKER SHEET H (PBS - H - 4150)

NOTE; All signs are positive unless otherwise noted. Depths and corrections are in feet. Values have been reduced to an initial setting of 4.0 feet.

"A" SCALE DEPTH

DAY LETTER	DATE 1950	10	20	30	40	50	60	70	80	90
A	19 April		-0.6	-0.8	-1.0	-1.3				
		-0.3	-0.3	-0.7	-0.6	-1.0				
B	27 April	-0.1	-0.1	-0.3	-0.9	-1.0				
		-0.1	-0.5	-0.2	-1.0	-1.2				
		-0.2	-0.2	-0.6	-0.9	-1.0				
		-0.3	-0.2	-0.4	-0.7	-1.0				
C	9 May	-0.2	-0.2	-0.4	-0.8	-1.0				
		-0.3	-0.3	-0.5	-0.7	-1.0				
D	26 Oct.	-0.2	0.0	0.0	0.0	0.0				
		0.0	0.0	0.0	-0.4	-1.0				
			-0.3	-0.4	-0.2					
			-0.2	-0.4						
SUM		-1.7	-2.9	-4.7	-7.2	-9.5				
NUMBER		9	12	12	11	10				
MEAN		-0.19	-0.24	-0.39	-0.65	-0.95				

"B" SCALE DEPTH

A	19 April			-2.2	-2.5	-2.4	-2.5	-2.7	
				-1.6	-2.4	-2.5	-2.6	-2.7	
B	27 April			-1.8	-2.0	-2.0			
				-1.3	-2.0	-2.0			
				-1.4	-1.8				
					-1.8				
C	9 May			-1.7	-1.8				
				-1.7	-1.9				
D	26 Oct.			-1.2	-1.5	-1.5	-1.5	-1.8	
				-1.5	-1.9	-2.0	-1.6		
				-1.6					
SUM				-16.0	-19.6	-12.4	-8.2	-7.2	
NUMBER				10	10	6	4	3	
MEAN				-1.60	-1.96	-2.07	-2.05	-2.40	

STATISTICS

SHIP PARKER

STATISTICS FOR HYDROGRAPHIC SURVEY H- 8012 (PBS-H-4150)

Vol.	Day Letter	Date 1950	No. of Pos.	Stat. Mi. Sdg.Line	Vessel
1	A	19 April	109	46.6	PARKER
1	B	27 April	137	52.3	PARKER
1 - 2	C	9 May	132	56.9	PARKER
2	D	26 October	134	56.0	PARKER
		Totals	512	211.8	
		Square Statute Miles		11.5	

STATISTICS

TOTALS FOR PBS 512 Positions
211.8 Statute Miles Sounding Line
11.5 Square Statute Miles

STATISTICS
SHIP COWIE (1952) Additional work

3	A blue	10/22/52	91	45.2	COWIE
3&4	B	10/23/52	105	40.4	COWIE
		TOTALS	196	85.6	

GRAND TOTALS
708 Positions
297.4 Statute miles sounding lines
20.0 Square statute miles

SUMMARY OF ECHO CORRECTIONS

Sheet H-
(PBS-H-4150)

Ship	Day Letter	Fath. No.	Initial Set.(Ft)	Fath. Scale	From Depth to Depth (Ft)	Corr'n (Ft.)
PARKER	A,B, C,D.	120-S	4.0	A	0.0 to 25.5	-0.2
					26.0 to 34.0	-0.4
					34.5 to 41.0	-0.6
					41.5 to 48.0	-0.8
					48.5 to 53.5	-1.0
				B	38.0 to 42.0	-1.6
					42.5 to 48.0	-1.8
					48.5 to 72.0	-2.0
					72.5 to 77.5	-2.2
					78.0 to 82.0	-2.4
					82.5 to 85.0	-2.6
					85.5 to 87.0	-2.8
					87.5 to 90.0	-3.0
				C	62.0 to 80.0	-3.6
					80.5 to 90.0	-3.8
					90.5 to 108.0	-3.6
					108.5 to 120.0	-3.4

ABSTRACT OF BAR CHECKS - CONTINUED

FATHOMETER NO. 120-S Ship PARKER SHEET H (PBS - H - 4150)

NOTE: All signs are positive unless otherwise noted. Depths and corrections are in feet. Values have been reduced to an initial setting of 4.0 feet.

"C" SCALE DEPTH

DAY LETTER	DATE 1950	70	80	90
A	19 April	-3.6	-3.7 -3.7	-3.7
SUM		-3.6	-7.4	-3.7
NUMBER		1	2	1
MEAN		-3.6	-3.7	-3.7

DESCRIPTIVE REPORT
TO ACCOMPANY
HYDROGRAPHIC SURVEY H- 8012
(Field Sheet No. PBS-H-4150)

Chief of Party

G. R. Fish

Ship PARKER

Surveyed April, May and October 1950

Scale 1:~~40,000~~ 20,000

A. PROJECT:

This survey was executed under Supplemental Instructions from the Director for Project CS-326 dated 26 July 1948.

B. SURVEY LIMITS AND DATES:

This survey is a section of a sheet that covers the off shore hydrography on the east side of Lower Chesapeake Bay off Cape Charles, Va. It extends from Latitude 37 - 14' - 00" to Latitude 37 - 20' - 00" and from Longitude 76 - 03' - 30" to Longitude 76 - 07' - 30".

H-7750 (1948-50)

On the west and south side this survey joins Sheet No. PBS-H-4148.

H-7910

H-7911 On the east side this survey joins Sheets Nos. PBS-H-1150 and PBS-H-1250. The latter sheet is incomplete.

On the north side lies additional area not surveyed on this project.

This survey covers four days of hydrographic surveying by Ship PARKER 19 and 27 April, 9 May and 26 October 1950.

C. VESSELS AND EQUIPMENT:

Ship PARKER using portable depth recorder No. 120S (type 808J) did all hydrography on this sheet, thus far.

D. TIDE AND CURRENT STATIONS:

The tides as furnished by the Washington Office were based on the hourly height as observed at the primary tide station located at the Naval Operating Base, Hampton Roads, Va. All of the hydrography came within zone "X" where there is a time difference of minus 30 minutes and a 0.0 foot high water hight difference (See tide note attached to this report). No current stations were occupied.

E. BOAT SHEET:

The boat sheet was constructed by the Washington Office.

Signals were plotted and verified in the usual manner.

F. CONTROL STATIONS:

Hydrography was controlled by five triangulation (1942) stations supplemented by two air photo stations on T-8181 and T-8177 respectively and by three hydrographic signals located by the hydrographic party.

Following is a list of signals used on this sheet.

LIST OF SIGNALS
Sheet PBS-H-4150

STATION	ORIGIN OF STATION	PARTY CHIEF	YEAR
* GAB	Air Photo - Sheet T-8181 Nat on T-7074b ~~Tomato(d)~~	W. D. P.	1942
HOT	" " " T-8177 - Wilkins Beach Hotel	W. D. P.	1942
SAND	Hydrographic Signal	G. R. F.	1950
PILE	" "	G. R. F.	"
SUE	" "	G. R. F.	"

TRIANGULATION STATIONS

TRAN	TRANSMISSION TOWER	W. D. P.	1942
OLD	OLD PLANTATION FLATS LIGHT HOUSE	K. B. J.	1939-42
WISE	WISE TOWER "C"	C. D. M.	1941
CHER	CHERITON WEBSTER CANNING CO. (STACK)	K. B. J.	1939
PA	CAPE CHARLES PENNSYLVAINA RAILROAD SHOP STACK	K. B. J.	1939-47

*See Addendum

See Processing office N. & A signals.

G. SHORELINE AND TOPOGRAPHY:

The shoreline and adjacent topography are not shown on the boat sheet. (shown on smooth sheet)

H. SOUNDINGS:

Soundings were obtained with Submarine Signal Company type 808J depth recorder.

Standard procedure was used in obtaining bar checks in accordance with paragraph 557 of the Hydrographic Manual. Attached to this report are lists of "Abstract of Bar Checks" and "Summary of Echo Corrections" covering this phase of the hydrography.

Refer to section on "Fathometer Corrections" contained in report on Hydrographic Survey Field No. PBS-H-4148 for detailed account of method of obtaining corrections. H-7756

I. CONTROL OF HYDROGRAPHY:

Hydrography was controlled by the standard procedure of obtaining three-point sextant fixes on shore signals previously located.

J. ADEQUACY OF SURVEY:

This survey is incomplete as the field season was closed due to inclement weather. Additional work is required. Add'l. work accomplished in 1952; see attached report

K. CROSSLINES:

In as much as this survey is incomplete no crosslines were run.

L. COMPARISON WITH PRIOR SURVEY:

Comparison with prior surveys should be made when the survey sheet is completed. Review, par. 5.

M. COMPARISON WITH CHART:

A cursory comparison was made with a copy of Chart 1222 published in December 1946 and hand corrected under date of February 3, 1951. Review, par. 6. The survey in the area sounded show agreement with the chart but a more extensive comparison should be made when the survey is completed.

N. DANGERS AND SHOALS:

This survey is not completed and additional work is required in shoal areas. (accomplished in 1952)

P. AIDS TO NAVIGATION:

The floating aids to navigation should be located before this sheet is completed. (accomplished 1952)

Respectfully Submitted

Emmett H. Sheridan

Emmett H. Sheridan
LCDR., USC&GS

TIDAL NOTE
(PBS-H-4150)

The Standard Automatic Tide Gage at the Naval Operating Base, Hampton Roads, Virginia was used exclusively to obtain tide reducers.

To simplify the work involved in reducing for tides the area covered under Project CS-326 was divided into four quadrants centered on the intersection of Latitude 37 10'00" and Longitude 76 10'00". This survey is covered by area "X", north of 37 10'00" and east of 76 10'00". The time difference for area "X" is minus 30 minutes and a high water height difference of 0.0 feet.

APPENDIX TO DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY H-8012, FIELD NO. PBS-4150

CHESAPEAKE BAY PROJECT CS-350

SHIP COWIE SCALE 1/40,000

J. H. BRITTAIN, COMDG.

This work was done in accordance with Instructions for Project CS-350 dated 13 March 1952.

The area covered consisted of two holidays left in the survey of the PARKER, BOWEN and STIRNI lying between Lat. 37°14' and 37°20' and between Longitudes 76°04' and 76°08'. Field work was accomplished on 22 and 23 October 1952.

The hydrography was done by the Ship COWIE using 808 type portable fathometer. Daily bar checks were taken and used for correcting the soundings.

Tide reducers were taken from the standard tide gage at Cape Charles Harbor, Va. without time or range correction.

The hydrography will be plotted on the smooth sheet for the work done on the original survey in 1950.

The hydrography was controlled by three point fixes on objects along the eastern shore of Chesapeake Bay located by triangulation, topography and sextant fixes. The work was done on the original boat sheet so only those signals plotted on the sheet were used. No new signals were located.

The survey is considered complete in the area covered. Satisfactory junctions were made with the hydrography already executed on the survey. Approximately 8% of cross lines were run over the area covered by this survey and the work done by PARKER, BOWEN and STIRNI. Satisfactory crossings were obtained.

No dangers and shoals not already shown on Chart 1222 were found in the area.

Respectfully submitted,

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

STATISTICS

DATE	DAY	VOL. NO.	STAT. MILES	POS.
10/22	A	3	45.2	91
10/23	B	3 & 4	40.4	105
TOTALS:			85.6	196

AREA: 8.5 Sq. Stat. Miles

FATHOMETER CORRECTIONS

A day — 22 October — Fath. 808, No. 118

A - SCALE	B - SCALE	
0.0 to 32.0 ft.	0.0 to 44.0 ft.	-1.4 to 90.0 ft.
-0.2 to 36.0 ft.	-0.2 to 48.0 ft.	
-0.4 to 40.5 ft.	-0.4 to 52.0 ft.	
-0.6 to 45.0 ft.	-0.6 to 57.0 ft.	
-0.8 to 49.0 ft.	-0.8 to 61.0 ft.	
-1.0 to 53.0 ft.	-1.0 to 65.0 ft.	
-1.2 to 57.5 ft.	-1.2 to 69.0 ft.	
	-1.4 to 73.0 ft.	
	-1.6 to 77.0 ft.	
	-1.8 to 81.0 ft.	

B day — 23 October — Fath. 808, No. 114S

(A-Scale)	(B-Scale)	
-0.2 to 16.0 ft.	-1.2 to 37.0 ft.	-1.0 to 83.0 ft.
-0.4 to 20.0 ft.	-1.0 to 41.0 ft.	-1.2 to 87.0 ft.
-0.6 to 25.0 ft.	-0.8 to 45.0 ft.	-1.4 to 90.0 ft.
-0.8 to 29.0 ft.	-0.6 to 49.0 ft.	
-1.0 to 33.0 ft.	-0.4 to 53.0 ft.	
-1.2 to 37.0 ft.	-0.2 to 58.0 ft.	
-1.4 to 41.0 ft.	0.0 to 62.0 ft.	
-1.6 to 46.0 ft.	-0.2 to 66.0 ft.	
-1.8 to 50.0 ft.	-0.4 to 71.0 ft.	
-2.0 to 54.0 ft.	-0.6 to 75.0 ft.	
-2.2 to 57.0 ft.	-0.8 to 79.0 ft.	

FATHOMETER CORRECTIONS

B - day (CONT.) | 23 October | Fath. 808, No. 114S

C - SCALE	D - SCALE
∕ 1.5 to 74.0 ft.	∕ 2.0 to 107 ft.
∕ 1.0 to 85.0 ft.	∕ 1.5 to 116 ft.
∕ 0.5 to 95.0 ft.	∕ 1.0 to 127 ft.
0.0 to 106 ft.	∕ 0.5 to 138 ft.
- 0.5 to 117 ft.	0.0 to 148 ft.
- 1.0 over 117 ft.	- 0.5 to 158 ft.

TIDE NOTE

HYDROGRAPHIC SURVEY H_____, FIELD NO. PBS-4150:

Hourly heights of the Cape Charles Harbor Standard Gage furnished by the Washington office were used for obtaining tide reducers for this survey. No time or height corrections were applied.

LIST OF SIGNALS

FOR HYDROGRAPHIC SURVEY H_____, FIELD NO. PBS-4150:

TRIANGULATION STATIONS	HYDROGRAPHIC NAME
Old Plantation Flats L.H. - 1939	OLD
~~Transportation~~ Transmission Tower - 1942	TRANS
Cape Charles PRR Shop Stack - 1939	PA

TOPOGRAPHIC STATIONS	HYDROGRAPHIC NAME
Wilkens Hotel	HOT

HYDROGRAPHIC STATIONS

Pile

Sue

FLOATING AIDS TO NAVIGATION
H-8012

Cherrystone Flats Lighted Buoy 10	37-16.81	76-05.08	84B (Cowie)	42 ft.	10/23/52

LIST OF SIGNALS

H-8012

TRIANGULATION STATIONS

TRANS	TRANSMISSION TOWER, 1942
OLD	OLD PLANTATION FLATS L.H. 2, 1939-42
CHER	CHERITON, WEBSTER CANNING CO., ~~TANK~~ STACK, 1939
PA	CAPE CHARLES, PENN. R.R. SHOP, STACK, 1939-42
WISE	WISE, FIRE CONTROL TOWER "C"

recoverable
~~MARKED~~ TOPOGRAPHIC STATIONS

HOT	WILKINS BEACH HOTEL, 1942

TOPOGRAPHIC STATIONS

Gab (See Addendum) Nat on T-7074 6

HYDROGRAPHIC STATIONS

Sand Pile Sue

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8012 (Field No. PBS-4150)

GENERAL

This survey was smooth plotted on a scale of 1:20,000 in order to show clearly, developement in areas as shoal as 13 feet.

CONTROL

The position of station Gab was taken from note on boat sheet. The field list of signals lists it as Tomato, 1942, how-ever, this station was reported lost in the Topo. descriptive report. As the boat sheet position does not agree with other topo stations in this area, it was assumed an azimuth and distance (not recorded) was measured to the Ferry Office Building from a near-by temporary graphic control station. It is believed this * building was constructed after the graphic control survey was made.

There were minor time jumps when stations Sand and Pile were used. This may be attributed to probable vagueness in identification as they are peaks of sand bluffs. (Discrepancies negligible)

Respectfully submitted,
Hugh L. Proffitt
Cartographer.

* 1952 photos show only one bldg. which is assumed to be ⊙ Nat on T-7074 (1949)

Norfolk, Va.
30 December 1952

Approved & Forwarded:
Earle A. Deily
Supervisor, SE Dist.

GEOGRAPHIC NAMES

Survey No. H-8012

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Virginia									B&M	1
Cape Charles		(town)								2
Chesapeake Bay									Bight	3
										4
										5
				Names underlined in red are approved						6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
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										25
										26
										27

1-12-53
L. Heck

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-8012...

Records accompanying survey:

Boat sheets ..1..; sounding vols. ...4..; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 4 Env.;

special reports, etc. 2 Descriptive Reports (1950 & 1952); 1 Smooth Sheet;

.....

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

Number of positions on sheet		708
Number of positions checked		75
Number of positions revised		0
Number of soundings revised (refers to depth only)		18
Number of soundings erroneously spaced		0
Number of signals erroneously plotted or transferred		.....
Topographic details	Time	.....
Junctions	Time	10
Verification of soundings from graphic record + inking (cart)	Time	46

Preliminary Verif. by: T.A. Dinsmore — 24 hrs. 16 Febr. 1953

Verification by C.L. Tyson .....Total time 56.. Date 15 Mar. 1954

Reviewed by D.A. Dinsmore ..... Time 16 hrs. Date 19 Febr. 1953

Review addendum by W. Evans III 22 4/11/56

M-2232-1

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8012 FIELD NO. PBS-4150

Virginia, Lower Chesapeake Bay, Off Cape Charles Harbor

Project No. CS-326

Surveyed - April 1950 - Oct. 1952 Scale 1:20,000

Soundings: Control:

808 Fathometer Sextant fixes on shore signals

Chief of Party - G. R. Fish and J. H. Brittain
Surveyed by - G. R. Fish and J. H. Brittain
Protracted by - B. T. Lewis
Soundings plotted by - B. T. Lewis
Preliminary verification by: T. A. Dinsmore
Verified and inked by - C.L. Tysor
Reviewed by - T. A. Dinsmore, 19 February 1953
Inspected by - R. H. Carstens

1. Shoreline and Signals

The shoreline originates with air-photographic surveys T-8176, T-8177, T-8181 and T-8182 of 1942. The sections of shoreline shown in red are from graphic control survey PBS-C-50 which will be destroyed subsequent to the verification and review of the surveys in this area.

The origin of the signal control is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at sounding line crossings are in very good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated.

This survey covers an offshore area where depths range from 13 to 150 feet. Sharp irregularities in the form of sand waves occur throughout an area extending from lat. 37° 15', long. 76° 03.5' to lat. 37° 17', long. 76° 05'. The sand waves range from 2-5 ft. in height. The natural channel in the area is defined by the 60-ft. depth curves. Except for the irregularities mentioned, the bottom is relatively smooth.

4. Junctions with Contemporary Surveys

Present survey depths are in excellent agreement with the junctional depths on H-7750 (1948-50) on the south and west.

The junction with H-7910 (1950) on the southeast will be considered in the review of that survey. (To be considered in the Review addendum of this survey after complete verification and inking) T.A.D. 6-23-53 Project surveys inshore on the east have not yet been received in this office.

Charted depths at the project limits on the north are in harmony with present survey depths.

5. Comparison with Prior Surveys

H-364 (1852) 1:40,000
H-2404 (1899) 1:20,000
H-2551 (1901) 1:60,000
H-3313 (1911) 1:40,000
H-3658 (1914) 1:20,000
H-3659 (1914) 1:20,000
H-4039 (1918-19) 1:30,000

These prior surveys cover the area of the present survey. The surveys of 1914-19 furnish the most complete prior coverage. A comparison of the prior and present surveys indicates that appreciable bottom changes have taken place in the area. Prior depths of 22 ft. in lat. 37° 14.50', long. 76° 03.45', are now superseded by depths of 13 ft., and in lat. 37° 16.75', long. 76° 05.00', present depths of 30 ft. supersede prior depths of 40 ft. In the vicinity of the latter example, the 36-ft. depth curve has moved as much as 500 meters farther offshore from its prior position. In the deeper offshore depths, present depths are generally 2-6 ft. shoaler than the prior depths.

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

6. Comparison with Chart 1222 (Latest print date 4/14/52)

A. Hydrography

Charted hydrography originates principally with the previously discussed surveys supplemented by a few critical soundings from the boat sheet of the present survey.

The 28-ft. sounding charted in lat. 37° 16.9', long. 76° 04.8', from the boat sheet of the present survey should be disregarded. An inspection of the sounding records and fathograms reveals no such depth. The 28 appearing on the boat sheet is apparently a recording error. A 30-ft. sounding to the southwestward is adequate for charting.

Other soundings charted from the present survey boat sheet which have been subsequently revised in depth on the smooth sheet are listed as follows:

Latitude	Longitude	Charted Depth	Smooth-sheet Depth
37° 16.55'	76° 04.77'	28	30-31
37° 16.67'	76° 03.50'	19	21
37° 15.57'	76° 04.05'	15	17
37° 14.82'	76° 03.54'	11	13
37° 14.50'	76° 03.40'	11	13

The note "shoaling reported" charted due west of Cape Charles harbor originates with H.O. Notice to Mariners No. 1, 1945. Present survey depths supersede the charted note which should now be disregarded.

The present survey entirely supersedes the charted information.

B. Aids to Navigation

The buoy charted in lat. 37° 15.1', long. 76° 03.9', from H.O. Notice to Mariners No. 18 (1949) was not located on the present survey.

Except as noted, 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 are complete; the Descriptive Report covers all matters of importance.

b. The preliminary verification of the survey indicates that the smooth plotting was generally accurate.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work

The survey is considered to be basic for the area covered and no additional field work is necessary.

H. R. Edmonston
Chief, Nautical Chart Branch

G. R. Fish
Chief, Section of Hydrography

Examined and approved:

H. Arnold Karo
Chief, Division of Charts

Earl O. Heaton
Chief, Division of Coastal Surveys

Addendum to Review

H-8012 (1950-52)

Verified and inked by - C. L. Tysor (Norfolk)
Review Addendum by - L. V. Evans III 4/11/56
Inspected by - R. H. Carstens

The verification of this survey has been completed. Soundings and depth curves have been inked except for curves within the overlap with unverified H-7911 (1950-53), where minor adjustments will be required when H-7911 is verified. The transfer of junctional soundings between this survey and adjoining, contemporary, verified surveys has been done.

Junctions with Contemporary Surveys

Adequate junctions were made with H-7750 (1948-50) on the west and south and with H-7910 (1950) on the southeast. The junction with H-7911 (1950-53) will be considered in the review of that survey.

Comparison with Chart 1222 (latest print date 2/6/56)

The charted hydrography originates with the present survey after complete verification and requires no further application of this survey.

Condition of Survey

Completion of the verification confirms that the smooth plotting was accurate.

Approved:

E. R. McCarthy
Chief, Chart Division

RHC

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. Apr. 1950

TIDE NOTE FOR HYDROGRAPHIC SHEET

Division of Coast and Geodetic Surveys 14 January 1953

Division of Charts: R. H. Carstens

Plane of reference approved in 4
volumes of sounding records for

HYDROGRAPHIC SHEET 8012

Locality Lower Chesapeake Bay, Virginia

Chief of Party: G. R. Fish) in 1950-1952
J. H. Brittain)

Plane of reference is mean low water, reading
3.6 ft. on tide staff (1950) at Hampton Roads (NOB)
13.4 ft. below B. M. 6 (1927)

4.8 ft. on tide staff at Cape Charles Harbor (1952)
9.6 ft. below B. M. 12 (1923)

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

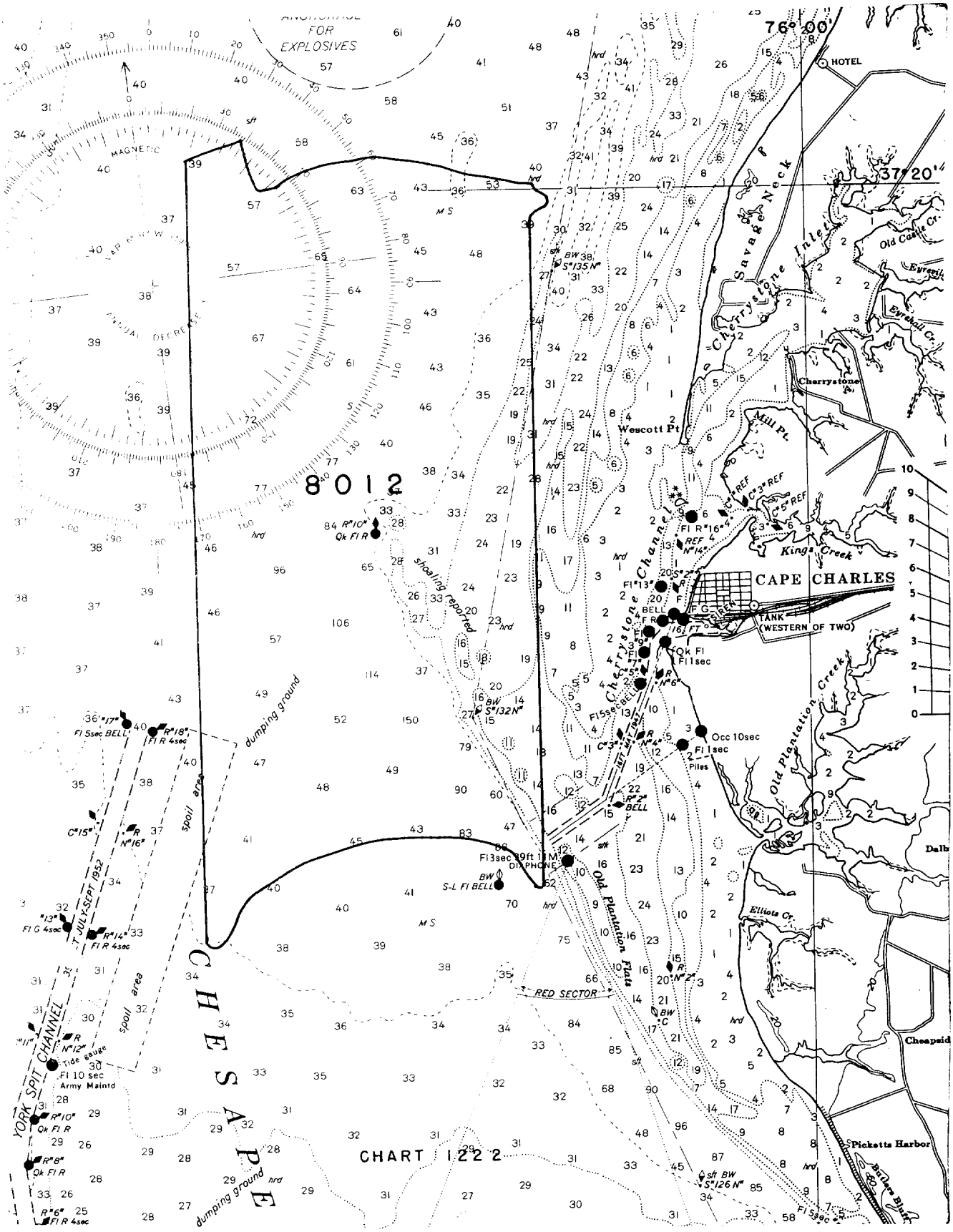
Hampton Roads (NOB) = 2.5 feet
Cape Charles Harbor = 2.4 feet

Condition of records satisfactory except as noted below:

NOTE: Tide reducers for positions 1 D to 134 D inclusive in volume 2, have been revised in red, these revisions have been verified.

E.C. McKay
Section of Tides
Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 877938


76° 00'
37° 20'
HOTEL
Savage Neck
Cherrystone Inlet
Old Castle Cr.
Everett Cr.
Everhill Cr.
Cherrystone
Wescott Pt
Mill Pt.
Kings Creek
CAPE CHARLES
TANK (WESTERN OF TWO)
Cherrystone Channel
Old Plantation Creek
Old Plantation Flats
Elliots Cr.
Cheapside
Pickett's Harbor
Butlers Bluff
8012
CHESAPEAKE
CHART 1222
YORK SPIT CHANNEL
JULY-SEPT 1952
spoil area
dumping ground
shoaling reported
RED SECTOR
Occ 10sec
Fl 1sec
Piles
Fl 5sec BELL
Fl G 4sec
Fl R 4sec
Fl 10 sec
Army Maintd
Tide gauge
Ok Fl R
Ok Fl 1sec
Fl 3sec 39ft 11M
DIAPHONE
S-L Fl BELL
Fl 15sec BELL
Fl R 16ft 4M
REF
MAGNETIC
ANCHORAGE FOR EXPLOSIVES

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8012

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
7/20/53	1222	WE	~~Before~~ After (Partial) Verification and Review partial applic'n
9 Sept 54	1222	H.E. MacEwen	~~Before~~ After Verification and Review full application (before addendum)
11-6-59	562	R.E. Elkins	~~Before~~ After Verification and Review applied in full.
8/24/70	78	J. McMillan	~~Before~~ After Verification and Review fully brought 1222 Day #57
10-2-85	1221 Prototype	J Graham	~~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

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.