

8185

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-1154 Office No. H-8185

LOCALITY

State Virginia

General locality Rappahannock River

Locality Vicinity of Grey Point

19 / 54

CHIEF OF PARTY

K. S. Ulm

LIBRARY & ARCHIVES

DATE November 2, 1956

B-1870-1 (1)

8185

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-8185

Field No. Co-1154

State VIRGINIA

General locality ~~WATERWAY~~ RAPPAHANNOCK RIVER

Locality VICINITY OF GREY POINT ~~AND CARTER CREEK~~

Scale 1:10,000 Date of survey 20 April to 27 July 1954

Instructions dated 5 Feb. 1953 & 25 Feb. 1954

Vessel COWIE

Chief of party K.S. ULM

Surveyed by K.S. ULM; A.J. RAMEY & J.M. OGILVIE

Soundings taken by ~~PERSONNEL~~ graphic recorder, hand lead, ~~WIK~~ POLE

Fathograms scaled by PERSONNEL SHIP COWIE

Fathograms checked by PERSONNEL SHIP COWIE

Protracted by G.O. WIMBRO

Soundings penciled by G.O. WIMBRO

Soundings in ~~FATHOMS~~ feet at MLW ~~MEANS~~ AND ARE TRUE DEPTHS.

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

2876

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY H-8185

FIELD NO. CO-1154

CHESAPEAKE BAY

GREY'S POINT AND CARTER CREEK

SHIP COWIE

SCALE 1:10,000

COMDR. K. S. ULM, COMDG.

A - PROJECT:

Project CS-287; Supplemental Instructions dated 5 February 1953 ✓
and Supplemental Instructions dated 25 Feb.. 1954.

B - SURVEY LIMITS AND DATES:

This survey is of the Rappahannock River from long. $76^{\circ}22.80'$, west-
ward to $76^{\circ}27.30'$, It joins field survey No. CO-1553_A on the east and
field survey No. CO-1254_A on the west.
H-8082(1953-54)
H-8186(1954)

The survey began 20 April 1954 and concluded on 27 July 1954. ✓

C - VESSELS AND EQUIPMENT:

The Ship COWIE using 808 type fathometers No. 114-S was used in ✓
mid stream. Launch 102 with 808 type fathometer No. 118-S was used
making junctions with the ship and skiff 749 using fathometer No. 120-S,
114-S and pole carried the work to shoreline and up all creeks and small
tributaries.

D - TIDE AND CURRENT STATIONS:

Portable tide gages (automatic) were maintained at Weems, Carter ✓
Creek and Mill Creek, Rappahannock River throughout the period of this
survey. Tide gage records and soundings are on E.S.T. No current sta-
tions were observed on this sheet.

E - SMOOTH SHEET:

The projection will be constructed and the smooth sheet plotted by ✓
the Norfolk Processing Office.

F - CONTROL STATIONS:

TRIANGULATION

(See Processing Office (Norfolk) for list of Signals.)

CHER	Cherry 3, 1944	LEMM	Lemmon, 1953	$\left. \begin{array}{l} \text{Referenced Sta.} \\ 37^{\circ} 38' + 156.6m \\ 76^{\circ} 25' + 1126.4m \end{array} \right\} \text{GR page 822}$
CRAB	Carter Creek Chammel Lt., 1954	LOCK	Locklies Creek Lt. 2, 1954	
FAIR	Grey Pt. Ferry Lt., 1954, Fl. R.	MILL	Mill Creek Lt. 4, 1954	
FOUL	Grey Pt. Ferry Lt., 1954, Fl. G.	POIN	Grey Point Lt. 3, 1944	
GREY	Grey 3, 1942	ROTT	Parrott Island Lt., 1954	
HARD	Orchard 3, 1942	Spin	Carter Creek Entrance Lt., 1954	

HYDROGRAPHIC:

ASH	T-11058	LIT	T-11058	SEX	T-11056
Gum	T-11058	OZE	T-11058	YAM	T-11058

MANUSCRIPT NO. T-11054 - TOPOGRAPHIC:

FRY	NOW	ORB
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MANUSCRIPT NO. T-11056 - TOPOGRAPHIC:

ABE	ELF	IRE	MUM	SAW	VET
ACE	EON	IVY	NEO	SEE	VEX
AIM	ERR	IMP	NET	SET	WAN
ALL	FED	JAR	NOD	SIT	WAR
ANT	FIG	JEB	NUB	SIR	WAX
APE	FIR	JIM	QAF	SIS	WIT
BAH	FUN	KED	ODD	SKI	WOE
BAT	GALL	KEN	OLD	SOT	WOO
BET	GAS	KEY	ORA	SOX	YAK
BOW	GET	KIM	OUT	TAF	YEA
COE	GIB	LEM	PEA	TAP	YES
CON	GOB	LES	PIG	TAT	YUM
GOO	GOL	LET	PIT	TEE	ZAG
COW	GUS	LOU	PON	THY	ZEK
DAY	HAT	LUG	PUT	TOE	ZIG
DIP	HER	MET	RID	TOM	ZOO
DIT	HIM	MID	RIM	TOO	
DOE	HIS	MIX	RIP	UTE	
DOL	HOT	MOO	ROD	USE	
EAR	HUT	MUD	ROW	VAL	
	ION		RUM	VAN	

F - CONTROL STATIONS: - CONT.: TOPOGRAPHIC: ✓

MANUSCRIPT T-11058:

ACT	DIF	JOB	NEW	SAT
ADD	DIH	JOK	NOT	SIL
ADO	DOG	JUT	OAT	SKY
AZO	EAT	KAL	OBI	SOP
BEE	EBB	KID	OFF	SOW
BED	ERG	KIT	OIL	STY
BIB	FEW	KIP	PAL	TAN
BON	FOE	LAY	PAT	TAX
BOX	FOX	LAX	PAW	TOY
CAB	GAG	LEE	POL	TUB
CAM	GAL	LEG	POT	UMP
CAR	GAM	LEO	PUP	VAT
CAT	GEB	LOE	QUO	VEL
CAW	HEX	MAL	RAT	VIM
COD	HID	MAN	REV	WAD
CUD	HOW	MAR	RIG	WAG
CUR	HUB	MAW	RUB	WET
CUT	IRK	MCE	RUE	WHO
DAW	ITS	NAY	SAD	YET
	JAW	NED	SAG	ZUT

Note: Signal ~~REM~~ ^{RIN} appears ~~twice~~ ^{once} on this sheet near the southeast corner and on the north side of eastern branch of Carter Creek.

From T-11057 (1952-53) See Norfolk Program Office list

G - SHORELINE AND TOPOGRAPHY: ✓

The shoreline of the boat sheet was transferred from air-photo manuscripts T-11056 and T-11058. (1952-53)

It was not practical to define the entire low water line by soundings due to the small range of tide in this area. The following areas have shoreline corrections as shown in red ink on the boat sheet.

- 1. ^(dashed L.W.L.) lat. 37°36.50', long. 76°27.95' ^(T-11058) 2. lat. 37°36.31', long. 76°27.08' ^(T-11058)
- 3. lat. 37°39.00', long. 76°24.47' ^(T-11056) 4. lat. 37°39.39', long. 76°26.10' ^(T-11056)
- 5. lat. 37°39.89', long. 76°26.28' ^(T-11056) 6. lat. 37°35.02', long. 76°26.32' ^(T-11058)
- 7. lat. 37 35.06', long. 76 25.68' ^(T-11058) 8. lat. 37 39.31', long. 76 25.29' ^(T-11056)
- H - SOUNDINGS: 9. lat. 37 34.95', long. 76 26.60' ^(T-11058)

Items 3, 4, 5, 7 Revised at the time of the Topographic Review See Review Report dated 8 April, 1957. All other items shoreline revised from Boat Sheet.

Depths were taken with 808 type fathometers, hand lead and pole. Bar checks were taken daily where practical as were hand lead comparisons. Bar check tabulation appears on the following pages. Junctions of the ship, launch and skiff are in good agreement so depth curves can be adequately drawn.

I - CONTROL OF HYDROGRAPHY: ✓

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

J - ADEQUACY OF SURVEY: ✓

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

} See the Review L.S.S.

K - CROSSLINES:

Crosslines are in good agreement, the percentage being estimated at eight to ten percent of the principal system of lines.

L-M - COMPARISON WITH PRIOR SURVEYS AND CHARTS:

SKIFF 749:

- 1 - (Item 19 - Preliminary Review) The 6 ft. sounding at lat. $37^{\circ}39.12'n$, long. $76^{\circ}26.15'W$, is correct, being ^{between} 5 ft. and 8 ft. soundings. It is on the edge of a shoal and should be ~~retained on the charts.~~ ^{replaced by present depths}
- 2 - The bridge clearances at lat. $37^{\circ}39.39'N$ long. $76^{\circ}24.44'W$, are 17.5 vertical, 24.0 horizontal.
- 3 - A large new pier ^(with mooring) is located at lat. $37^{\circ}39.39'N$, long. $76^{\circ}26.46'W$.
- 4 - At lat. $37^{\circ}35.66'N$, long. $76^{\circ}25.34'W$ is north end of eastern spoil bank of dredged channel, bare 1 ft. ^{M.L.W.} Pos. 1-r.
- 5 - At lat. $37^{\circ}35.64'N$, long. $76^{\circ}25.37'W$ is north end of western spoil bank of dredged channel, bare 1 ft. ^{M.L.W.} Pos. 2-r.

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

SKIFF NO. 749:

6 - At lat. 37°35.57', long. 76°25.29' is south end of eastern spoil bank of dredged channel, bare 1 ft. - pos. 3-r. *revised end of spoil bank*

7 - At lat. 37°35.48', long. 76°25.28' is south end of western spoil bank of dredged channel, bare 1 ft. ^{MLW} pos. 4-r.

8 - The creek entrance at lat. 37°37.79', long. 76°23.70', could not be entered at high water.

9 - The creek at lat. 37°37.61', long. 76°22.89' could not be entered at high water.

10 - The creek at 37°34.40', long. 76°23.03' could not be entered.

11 - The creek at lat. 37°34.47', long. 76°23.29' could not be entered.

SHIP COWIE ... LAUNCH NO. 102 ... SKIFF 749:

A comparison with chart 534 (print 2/9/53) revealed a general shoaling of from one to five feet for the entire area of this survey, with the following exceptions.

12 - In lat. 37°36.64', long. 76°25.41', general depths of ^{7 and} 10 ft. were obtained in charted depths of 3 ft.; however, 5 ft. was obtained 100 meters west.

13 - The charted 1 ft. shoal in lat. 37°36.16', long. 76°24.50', was not verified, general depths in the area being ^{7 1/2} 9 ft. This area was investigated by running closely spaced sounding lines, and by close observation from the sounding ^{vessel} ~~volume~~. Since no shoal indications were obtained, it is recommended that this sounding be removed from the chart.

14 - In lat. 37°36.66'N, long. 76°23.27'W, general depths of ⁶⁴ 63 ft. were obtained in charted depths of 73 ft.

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

SHIP COWIE ... LAUNCH NO. 102 ... SKIFF 749:

15 - In lat. 37°36.26'N, long. 76°22.93'W, general depths of 66 ft. were obtained in charted depths of 76 ft.

16 - In lat. 37°37.05'N, long. 76°23.70'W, general depths of ⁶³64 ft. were obtained in charted depths of 72 ft.

17 - In lat. 37°37.94'N, long. 76°27.11'W, general depths of ⁷³74 ft. were obtained in charted depths of 83 ft.

18 - In lat. 37°37.91'N, long. 76°27.87'W, general depths of 72 ft. were obtained in charted depths of 84 ft.

19 - The charted 18 ft. shoal in lat. 37°38.53'N, long. 76°26.90'W, was not verified, general depths in the area being 24 ft. Since no shoal indications were obtained, it is recommended that this sounding be removed from the chart. *Retain See TP5A Review.*

N - DANGERS AND SHOALS: *Range of tide MLW to MHW is 1.2 ft. to 1.3 ft. (Obstr)*

1 - At lat. 37°35.13'N, long. 76°24.63'W is a steam engine boiler awash at low tide in 6.5 ft. of water. Position 1-a - 16 ft. tin skiff.

2 - At lat. 37°35.12'N, long. 76°24.64'W is a submerged pile in 7 ft. of water. It is submerged 2.5 ft. Pos. 2-a - 16 ft. tin skiff. *(1.7 ft. M.L.W.)*

3 - At lat. ^{37°39.63}37°24.35'N, long. ^{76°24.34}76°39.64'W is a wreck in ^{3.3 M.L.W.}4.5 ft. of water, Uncovered 3 ft. M.L.W. bare 2.0 ft.

4 - At lat. 37°39.41'N, long. 76°24.99'W is a 60 ft. wreck in ^{2.2 M.L.W.}3.0 ft. of water, bare ^{4.0 M.L.W.}3.5 ft. of water. Pos. 29C (Green)

5 - At lat. ^{39.27}37°39.29'N, long. 76°25.35'W are two ^{Awash M.L.W.}submerged piles in ^{8 to M.L.W.}9 ft. of water, submerged 1.5 ft.

6 - At lat. ^{39.27}37°39.29'N, long. 76°25.36'W are two ^{Awash M.L.W.}submerged piles in ^{7 M.L.W.}8.5 ft. of water, submerged 1.5 ft.

N - DANGERS AND SHOALS:

7 - At lat. $37^{\circ}39.25'$, long. $76^{\circ}25.45'$ is a group of 3 piles at offshore end of Eastern Ferry fenders.

8 - At $37^{\circ}39.25'$, long. $76^{\circ}25.46'$ is the offshore end of the Western Ferry fender.

9 - At $37^{\circ}39.09'$, long. $76^{\circ}25.51'$ is a group of 6 piles in 8.5 ft. of water, bare 8.5 ft. - pos. 5-e - skiff 749. ^(7.7 M.L.W.)
^(3 piles bare 8.7 M.L.W.)
^(3 piles awash at M.L.W.)

10 - At lat. $37^{\circ}39.08'$, long. $76^{\circ}25.56'$ is the NW corner of old pier ruins.

11 - At lat. $37^{\circ}39.08'$, long. $76^{\circ}25.56'$ is a submerged pile in 8 ft. of water - submerged 1.5 ft. ^{7.2 MLW} This is the NE corner of old pier ruins. ^{AWASH M.L.W.}

12 - At lat. $37^{\circ}39.08'$, long. $76^{\circ}25.58'$ is a wreck in 3.5 ft. of water, bare 5 ft. ^(2.7 M.L.W.)
^{uncovered 6.7 M.L.W.}

13 - The gut at lat. $37^{\circ}39.54'$, long. $76^{\circ}26.41'$ is foul with many old wrecks.

14 - At lat. $37^{\circ}38.53'$, long. $76^{\circ}25.88'$, lat. $37^{\circ}38.56'$, long. $76^{\circ}25.90'$ are two large rocks ^(rock piles) awash at low water. ^(uncover 1 ft. M.L.W. + awash)

15 - At lat. $37^{\circ}37.98'$, long. $76^{\circ}24.88'$ is a 9 ft. sounding in generally 14 ft. depths. This is near a bridge under construction across the Rappahannock River. Pos. 93-j - 94-j.

16 - At lat. $37^{\circ}38.32'$, long. $76^{\circ}25.44'$ is a 10 inch pile in 3.5 ft. of water bare 4.5 ft. - position 82-k. ^(1.9 M.L.W.)
^{6.7 M.L.W.}

17 - At lat. $37^{\circ}41.12'$, long. $76^{\circ}26.55'$ the northern end of this gut is foul with stumps and logs. Pos. 52-l.

18 - At lat. $37^{\circ}35.00'$, long. $76^{\circ}25.08'$ are the ruins ^(shown as piles) of an old pier in 9 ft. of water, bare 2 ft. Pos. 67-n, 70-n. ^{1.7 M.L.W.}

19 - At lat. $37^{\circ}35.45'$, long. $76^{\circ}26.68'$ is the offshore end of old pier ruins, bare 5.5 ft. - pos. 59-q. ^{5.7 M.L.W.}

N - DANGERS AND SHOALS:

20 - At lat. 37°35.6⁵, long. 76°26.6⁷ the western end of this gut (west of signal CUD) is foul with trees and stumps.

21 - At lat. 37°36.90', long. 76°26.8³, is a group of ~~four~~ ^{three} piles in ^(1/2 M.L.W) 1 ft. of water, bare ~~4~~ ⁵ ft. ^(1/2 M.L.W - 1/4 tide) pos. 46-t

22 - At lat. 37°35.9⁸65', long. 76°24.5⁶87' is a shoal in 6 ft. of water. The shoal is 4 ft. Verified by positions 15, 16, 17, 18 and 19-n, was found by launch 102, pos. 181-d - 182-d.

O - COAST PILOT SECTION INFORMATION

1 - At lat. 37°39.33', long. 76°25.99' is the offshore end of a marine railway in 9.5 ft. of water.

2 - At lat. 37°39.52', long. 76°26.46' is the offshore end of a 500 ton marine railway of 160 ft. maximum length. The Humphrey's railway, Inc., Weems, Va.

3 - At 37°39.52', long. 76°26.54' is the offshore end of a 350 ton marine railway of 120 ft. maximum length. The Humphrey's Railway, Inc., Weems, Va. - Pos. 7-g and 8-g.

4 - At lat. 37°39.40', long. 76°26.14' is the offshore end of a yacht club pier on which is a Texaco Service Station and mail pick-up.

5 - At lat. 37°39.4⁵, long. 76°26.14' is the offshore end of a large Gulf refueling pier. Pos. 1-g.

6 - At lat. 37°39.2³, long. 76°25.41' is the offshore end of a Sinclair fuel dock. The depth is 7 ft.

7 - Carter Creek is a good anchorage for small boats having 13 ft. channel inside the creek. Channel is well marked and water, fuel and stores are available.

O - COAST PILOT INFORMATION: (CONT.)

- 8 - At lat. 37°39.29', long. 76°26.50' is an Essonfuel pier., Weems, Va. ✓
- 9 - At lat. 37°39.⁷⁷~~86~~, long. 76°26.⁰²~~93~~' is the offshore end of a large pier at the Tides Inn, a resort hotel, at Irvington, Va.

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. *(see also Norfolk list)*

- (1) Carter Creek Spar Buoy "2" - lat. 37°38.96', long. 76°26.54', in 12 ft. of water. ✓
- (2) Carter Creek Spar Buoy "4" - lat. 37°39.13', long. 76°26.50, in 12 ft. of water. ✓
- (3) Locklies Creek Nun Buoy "4" - lat. 37°35.67', long. 76°25.77' in 6 ft. of water. ✓
- (4) Locklies Creek Can Buoy "5" - lat. 37°35.⁶⁷~~86~~, long. 76°25.9¹~~1~~' in 8 ft. of water. ✓

Q - LANDMARKS FOR CHARTS:

Form 567, Landmarks for charts, is being prepared as a separate report.

The three following landmarks were located within the limits of Survey CO-1154. *H-8185(1954)*

- (1) A large cable-crossing sign (topo. signal CAB) at lat. 37°36.66', long. 76°25.86' is prominently visible from the north and east, and is recommended for a landmark. *Added to CH 531 3-7-57 RKD*
- (2) A large cable-crossing sign (topo. signal HOT) at lat. 37°37.79', long. 76°24.36' is prominently visible from the south and west and is recommended for a landmark. *Added to CH 531 3-7-57 RKD*

LANDMARKS FOR CHARTS: (CONT.)

(3) The westerly of two twin silos (topo. signal SIL), at lat. 37°34.54' long. 76 23.66' is visible for a considerable distance from the north and recommended for a landmark. *Already Charted as Landmark on GR 534 RKD 3-8-57*

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. Ramsey
Albert J. Ramsey,
Lieut. (j.g.), USC&GS.

J. Morgan Gilvie
J. Morgan Gilvie,
Ensign, USC&GS.

Approved and forwarded:

3/25/55

Don G. Jones

Comdg. Ship COWIE.

TIDE NOTE

A portable automatic tide gage at Weems, Carter Creek, lat. $37^{\circ}39.28'$, long. $76^{\circ}26.42'$. was used for obtaining tide reducers for Carter Creek and entrance. A portable automatic tide gage at Mill Creek, Rappahannock River, lat. $37^{\circ}34.95'$, long. $76^{\circ}25.05'$ was used for obtaining tide reducers for the remainder of the 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

12
STATISTICS

CO-1154

SHIP COWIE: ✓

<u>DATE</u>	<u>DAY LETTER</u>	<u>VOL. NO.</u>	<u>STATUTE MILES</u>	<u>NO. OF POS.</u>
4/22	A	I	27.1	100
4/23	B	I	17.4	61
4/30	C	I	14.1	51
5/3	D	I	9.3	30
5/3	D	II	5.7	21
5/7	E	II	7.1	27
5/14	F	II	3.8	14
5/17	G	II	19.0	68
5/21	H	II	12.3	45
5/28	J	II	5.2	17
6/1	K	II	6.3	27
6/21	L	III	6.3	23
7/12	M	III	3.7	20
TOTALS:			137.3	504
<u>LAUNCH NO. 102:</u> ✓				
6/19	a	IV	11.3	80
6/20	b	IV	25.8	155
6/25	c	IV	6.6	52
6/25	c	V	23.0	157
6/26	d	V	18.7	115
6/26	d	VI	18.7	116
6/27	e	VI	11.0	71
7/27	f	VI	3.0	21
TOTALS:			118.1	767
<u>SKIFF NO. 749:</u> ✓				
4/28	a	VII	5.4	63
4/29	b	VII	11.3	137
5/4	c	VII	4.0	46
5/5	d	VII	7.2	77
5/5	d	VIII	5.2	53
5/6	e	VIII	10.8	129
5/11	f	VIII	13.1	153
5/12	g	IX	5.1	78
5/13	h	IX	19.0	175
5/18	j	IX	4.3	37
5/18	j	X	11.0	71
5/19	k	X	20.4	136
5/20	l	X	7.4	75
5/25	m	X	2.0	28
5/25	m	XI	2.1	32
6/24	n	XI	17.5	138
6/27	p	XI	7.1	72
7/7	q	XII	11.1	140
7/8	r	XII	11.7	127
7/9	s	XIII	5.3	50
7/13	t	XIV	15.2	133
7/14	u	XIV	5.5	69
7/15	v	XIV	4.2	52
7/16	w	XV	5.4	55
TOTALS::			211.3	2126

CONT.:
STATISTICS: SIXTEEN FOOT TIN SKIFF: _

DATE	DAY	VOL. NO.	STATUTE MILES	NO. OF POSITIONS
4/20	a	XVI	(Located two obstructions)	

GRAND TOTALS: 466.7' 3,399' ✓
 TOTAL AREA --- 19.3 sq. stat. M.

FATHOMETER CORRECTIONS ✓

SHIP CORRE:

DAY	DATE	15'	20'	30'	40'	50'-A	50'-B	60'	70'	80'
A	4/22		∓0.2	∓0.2	∓0.4	0.0	∓1.0		-0.5(R)	
B	4/23		∓0.5	∓0.2	0.0	0.0	∓0.7	0.0(R)	-0.0(R)	
C	4/30		∓0.5	∓1.0(R)	∓1.0(R)	∓1.0(R)	∓1.0	∓1.5	∓1.2	
D	5/3		∓0.5	0.0	0.0	0.0	∓2.5	∓1.5		
E	5/7		0.0	0.0	0.0	0.0	∓1.5	∓1.0	∓1.0	
F	5/14		0.0	0.0	0.0	0.0	∓2.0	∓2.0	∓2.0	∓2.5(R)
G	5/17		0.0	0.0	0.0	0.0	∓1.5	∓1.5		
H	5/21	∓0.2	0.0	0.0	0.0	0.0	∓2.0	∓2.0		
J	5/28	∓0.2	0.0	0.0	0.0	0.0	∓2.0	∓1.0	∓1.5	
K	6/1	∓0.5	∓0.2	0.0	0.0	0.0	∓1.5	∓1.5		
L	6/21	∓0.7	∓0.5	0.0	0.0	0.0	∓2.0	∓2.0	-1.0(R)	
M	7/12		∓0.8	∓0.8(R)	0.0	0.0	∓2.5	∓2.0		
AVERAGE:		∓0.4	∓0.3	∓0.1	0.0	0.0	∓1.6	∓1.6	∓1.4	∓1.3

CORRECTIONS: A scale 15.0 to 20.0 - ∓0.4 B scale 50.0 to 62.0 - ∓1.6
 20.5 to 30.0 - ∓0.2 62.5 to 80.0 - ∓1.4
 30.5 up - 0.0

LAUNCH NO. 102:

DAY	DATE	5'	10'*	20'	25'	30'	40'-A	40'-B	50'-A	50'-B	*15'	60'
a	6/19	0.0	0.0	0.0	0.0	0.0	0.0	∓1.5	0.0	∓1.0	0.0	∓1.0
		0.0	0.0	∓0.5	∓0.5	∓0.2	∓0.3	∓1.5	∓0.2	∓1.5	0.0	∓2.0
b	6/20	0.0	0.0	0.0	0.0	0.0	∓0.5	∓1.5	∓0.5	∓1.0	0.0	∓2.0
		0.0	0.0	0.0	0.0	0.0	-0.8(R)	∓2.0	∓1.0	∓2.0	0.0	∓2.0
c	6/25	0.0	0.0	0.0	∓0.7	∓0.6	∓1.0	∓1.5	∓2.0	∓2.0	0.0	∓2.0
		0.0	∓0.5	0.0	∓0.1	0.0	0.0	∓2.0	∓0.5	∓2.0	0.0	∓2.0
d	6/26	0.0	0.0	∓0.2	∓0.8	∓0.5	0.0	∓2.0	0.0	∓2.0	∓0.0	∓2.0
		0.0	∓0.8	∓1.0	∓1.0	∓1.0	∓1.0	∓2.0	∓1.0	∓3.0	∓1.0	∓2.0
e	6/27	0.0	0.0	∓0.2	∓0.8	∓0.7	∓1.0	∓2.0	∓1.0	∓2.0	∓0.2	∓2.0
f	7/27	0.0	∓0.2	∓0.2	∓0.3	0.0	-1.0(R)	0.0(R)	-1.0(R)	0.0(R)	∓0.2	
		0.0	∓0.5	∓0.8	∓0.8	∓0.5	∓1.0		∓1.0	∓2.0	∓0.7	
AVERAGE:		0.0	∓0.2	∓0.3	∓0.5	∓0.3	∓0.5	∓1.8	∓0.5	∓1.8	∓0.2	∓1.8

CORRECTIONS: A scale 0.0 to 5.0 - ∓0.0 B scale ∓1.8 throughout
 5.5 to 24.0 - ∓0.2
 24.5 to 42.0 - ∓0.4
 42.5 up - ∓0.6

FATHOMETER CORRECTIONS - SKIFF NO. 749:

DAY	DATE	5'	10'	15'	20'	25'	30'
d	5/5	-0.15	-0.4	-0.5	-0.5		
e	5/6	0.0	-0.25	-0.35	-0.2		
f	5/11	0.0	-0.5	-0.8	-0.8		
g	5/12	-0.2	-0.1	-0.65	-0.7		
h	5/13	-0.35	-0.6	-0.5	-0.7		-1.0
j	5/18	0.0	-0.1	-0.3	-0.7	-0.7	-1.0
k	5/19	0.0	-0.3	-0.45	-0.7		-0.9
l	5/20	-0.5(R)	-0.2	-0.4	-0.5	-1.0	
t	6/13	0.3(R)	0.1(R)	-0.15	-0.4	-0.5	-1.0
w	7/16	0.0	0.4(R)	-0.0(R)	0.0(R)	0.0(R)	0.0(R)

AVERAGE: -0.1 -0.3 -0.5 -0.6 -0.7 -1.0

CORRECTIONS: 0.0 to 5.0 - 0.0
 5.5 to 10.0 - -0.2
 10.5 to 15.5 --0.4
 16.0 to 21.5 -0.6
 22.0 to 29.0 -0.8
 29.5 up -1.0

PROCESSING OFFICE
LIST OF SIGNALS
.. To Accompany
H-8185

TRIANGULATION STATIONS ✓

CHER	CHERRY 3, 1944-53
CRAB	CARTER CREEK CHANNEL LIGHT, 1954
GREY	GREY 3, 1942-53
HARD	ORCHARD 3, 1942-53
LEMM	LEMMON, 1953
LOCK	LOCKLIES CREEK LIGHT NO. 2, 1954
MILL	MILL CREEK LIGHT, 1954
POIN	GREY POINT LIGHT, 1944
ROTT	PARROTT ISLAND LIGHT, 1954
SPIN	CARTER CREEK ENTRANCE LIGHT, 1954

TOPOGRAPHIC SIGNALS ✓

SOURCE T-11054

Fry Now Orb

SOURCE T-11056 ✓

Abe	Ace	Aim	All	Ant	Ape	Bah	Bat	Bet	Bow
Coe	Con	Coo	Cow	Day	Dip	Dit	Doe	Dol	Ear
Elf	Eon	Err	Fed	Fig	Fir	Fun	Gall	Gas	Get
Gib	Gob	Gol	Gus	Hat	Her	Him	His	Hot	Hut
Ion	Ire	Ivy	Imp	Jar	Jeb	Jim	Ked	Ken	Key
Kim	Lem	Les	Let	Lou	Lug	Met	Mid	Mix	Moo
Mud	Mum	Neo	Net	Nod	Nub	Oaf	Odd	Old	Ora
Out	Pea	Pig	Pit	Pon	Put	Rid	Rim	Rip	Rip
Rod	Row	Rum	Rot	Saw	See	Set	Sit	Sir	Sis
Ski	Sot	Sox	Taf	Tap	Tay	Tee	Thy	Toe	Tom
Too	Ute	Use	Val	Van	Vet	Vex	Wan	War	Wax
Wit	Woe	Woo	Yak	Yea	Yes	Yum	Zag	Zek	Zig
Zoo									

SOURCE T-11058 ✓

Act	Add	Ado	Azo	Bee	Bed	Bib	Bon	Box	Cab
Cam	Car	Cat	Caw	Cod	Cud	Cur	Cut	Daw	Dif
Dim	Dog	Eat	Ebb	Erg	Fair	Few	Foe	Foul	Fox
Gag	Gal	Gam	Geb	Hex	Hid	How	Hub	Irk	Its
Jaw	Job	Joy	Jut	Kal	Kid	Kit	Kip	Lay	Lax
Lee	Leg	Leo	Liz	Mal	Man	Mar	Maw	Moe	Nay
Ned	New	Not	Oat	Obi	Off	Oil	Pal	Pat	Paw
Pol	Pot	Pup	Quo	Rat	Rev	Rig	Roy	Rub	Rue
Sad	Sag	Sat	Sil	Sky	Sop	Sow	Sty	Tan	Tax
Toy	Tub	Ump	Vat	Vel	Vim	Wad	Wag	Wet	Who
Yet	Zut								

CONTINUATION
PROCESSING OFFICE
LIST OF SIGNALS
H-8185

TOPOGRAPHIC STATIONS ✓

SOURCE T-11059

Fat Rin

HYDROGRAPHIC STATIONS ✓

Ash (T-11058) Vol. 14, pg. 43, 56
Gum (T-11058) Vol. 11, pg. 46
Lit (T-11058) Vol. 14, pg. 43
Oze (T-11058) Vol. 11, pg. 45
Sex (T-11056) Vol. 9, pg. 72
Yam (T-11058) Vol. 11, pg. 47

FLOATING AIDS TO NAVIGATION

H-8185

<u>BUOY</u>	<u>LAT.</u>	<u>METERS</u>	<u>LONG.</u>	<u>METERS</u>	<u>DEPTH</u>	<u>POS. NO.</u>	<u>DATE</u>
Carter Creek Buoy 2	37-38"	1765.0"	76-26"	767.0"	11"	32h"	5/13/54
Carter Creek Buoy 4	37-39"	306.0"	76-26"	715.0"	12"	31h"	"
Locklies Creek Buoy 4	37-35"	1253.0"	76-25"	1127.0"	6'	1q"	8/7/54
Locklies Creek Buoy 5	37-35"	1243.0"	76-25"	1388.0"	6"	2q"	"

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8185 (Field No. Co-1154)

GENERAL

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

SOUNDINGS


Soundings at crossings checked very well with the following exceptions:

- *Lat. 37-38.01"; Long. 76-26.08" 4 to ⁵AL crossing 45 to 46D (Cowie)
- **Lat. 37-36.77"; Long. 76-23.17" 21L crossing 35 to 36D (Cowie)
- * Improved during verification.
- ** Bottom seems to be somewhat uneven on this gentle slope } condition is not serious.

L.S.S.

Norfolk, Va.
15 Oct. 1956

Respectfully submitted,



Hugh L. Proffitt
Cartographer.

GEOGRAPHIC NAMES

Survey No. H-8185

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
<u>Virginia</u>										BGN	1
<u>Rappahannock River</u>											2
<u>Parrott I. land</u>											3
<u>Mill Creek</u>			(tide station)								4
<u>Locklies Creek</u>										BGN	5
<u>Grey P. int</u>			(not Grey's)								6
<u>Meachin Creek</u>											7
<u>Cherry P. int</u>											8
<u>Carter Creek</u>											9
<u>Orchard Point</u>											10
<u>Weems</u>			(tide station)								11
<u>Carter Cove</u>											12
<u>Church Prong</u>											13
<u>Ashburn Cove</u>											14
<u>Irvington</u>											15
<u>Eastern Branch</u>											16
<u>Bridges Cove</u>											17
<u>Sams Cove</u>											18
<u>Dunton Cove</u>											19
<u>Old Mill Cove</u>)											20
<u>Currall Cove</u>)											21
all names but these two are on chart 534											
<u>Yopps Cove</u>											22
<u>Corrotoman Point</u>											23
<u>Taylor Creek</u>											24
											25
											26
											27
Names approved 11-9-56 L. Heck											
See chart 534 for best placement of names.											

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .8185...

Records accompanying survey:

Boat sheets .1...; sounding vols. ..16.; wire drag vols.;
 bomb vols.; graphic recorder rolls 8-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		3399
Number of positions checked		.229.
Number of positions revised		...0...
Number of soundings revised (refers to depth only)		314 * caused by Revision of tide reducers - see Tide Note in D.R.
Number of soundings erroneously spaced		...0...
Number of signals erroneously plotted or transferred		...0...
Topographic details	Time	..16 hrs
Junctions	Time	...8 hrs
Verification of soundings from graphic record	Time	...5 hrs

Verification by... Gary Ater..... Total time 240 hrs Date 10/20/58
 Ver. " 32

Reviewed by... *[Signature]*..... Time ..70..... Date 6/20/59

10/26

R 4 c

TIDE NOTE FOR HYDROGRAPHIC SHEET ✓

~~DIVISION OF COASTAL SURVEYS~~

20 November 1956

Division of Charts: R. H. Carstens

Plane of reference approved in
16 volumes of sounding records for

HYDROGRAPHIC SHEET 8185

Locality Chesapeake Bay, Rappahannock River

Chief of Party: K. S. Ulm in 1954
Plane of reference is mean low water, reading
4.4 ft. on tide staff at Mill Creek
8.7 ft. below B. M. 1 (1953)
1.3 ft. on tide staff at Weems
4.0 ft. below B. M. 1 (1954)
3.9 ft. on tide staff at Millenbeck
6.0 ft. below B. M. 2 (1954)

Height of mean high water above plane of reference is:
Mill Creek 1.2 ft.
Weems 1.3 ft.
Millenbeck 1.3 ft.

Condition of records satisfactory except as noted below:

NOTE: Tide reducers for the positions listed below have
been revised in red and verified:

<u>Vol.</u>	<u>Positions</u>
15	lw - 54w

William S. ...
Branch
Chief, ~~Division of Tides and Currents~~

DIVISION OF CHARTS

Review Section - Nautical Chart Branch

Review of Hydrographic Survey

Registry No. 8185

Virginia, Rappahannock River
Vicinity of Grey Point

Field No. CO-1154

Surveyed - April - July 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 - K. S. Ulm
Surveyed by - K. S. Ulm, A. J. Namey and J. M. Ogilvie
Protracted by - G. O. Wimbro
Soundings plotted by - G. O. Wimbro
Verified and inked by - G. Ater
Reviewed by - L. S. Straw
Inspected by - R. H. Carstens

6 March 1959

1. Shoreline and Control

The shoreline originates with reviewed 1952-53 shoreline surveys T-11054, T-11056, T-11058, T-11059 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 crosslines are adequate and the depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves supplemented by the 3-foot, 24-foot at the entrance to Carter Creek, and the 36-foot curves are adequately delineated.

The river bottom is somewhat irregular and characterized by sedimentary deposits of soft mud. The main channel is from 60 to 80 feet deep and runs close to Cherry Point, where the bottom drops abruptly from 3 feet to 54 feet. On the opposite side of the river, north and east of Grey Point and in the vicinity of Parrott Island, large flat areas of 1 to 3 feet extend as much as 1/4 mile off shore.

4. Junctions with Contemporary Surveys

The depths at the junction of the present survey with H-8082 (1953-54) on the east are in agreement from the banks of the river to the 30-foot curves. Present survey soundings between the 30-foot curves range from 1 to 3 feet shoaler than adjoining depths and are at the maximum difference in depths of 70 feet. As noted in paragraph 3, the bottom is soft mud and subject to change. Since the present survey soundings at the junction were taken a year later than those of the adjoining survey, they supersede the earlier soundings in the common area from H-8082 (1953-54) were transferred to the present survey to form a butt junction.

The junction with H-8186 (1954) on the west will be considered in the review of that survey.

5. Comparison with Prior Surveys

A.	H-608 (1857) 1:10,000	H-1001 (1869) 1:10,000-1:20,000
	H-609 (1857) 1:10,000	

A comparison of the prior and present surveys reveals the maximum changes in depths to occur in the natural channel of the river. Present depths of 60 to 70 feet are about 10-feet shoaler than prior depths except in Lat. 37°37.7' Long. 76°25.3' where there appears to be no change. South of the channel, over large flat areas, the soundings on the present survey are from 1 to 2 feet shoaler in depths of 30 feet. No appreciable changes are indicated elsewhere except south and west of Parrott Island where navigational channels have been dredged. The changes in depths are attributed in part to some inaccuracies in the prior surveys and in part to sedimentation.

The 18-foot sounding (corrected from 17 to 18) on H-608 (1857) in lat. 37°38.53' long. 76°26.90' was not verified. It is considered that sounding lines spaced approximately 100 meters on the present survey in this area neither prove or disprove the existence of the 18-foot depth.

Since no specific search was made, the 18-foot sounding is carried forward to the present survey.

The present survey with the indicated additional hydrographic information is adequate to supersede the prior surveys within the common area.

B. H-3002 (1907-08) 1:20,000 H-3002a (1907-08) 1:20,000

The sounding lines on these reconnaissance surveys average about 1600 meters apart and do not provide enough soundings to make a good comparison, however, where lines cross the natural river channel, the present survey depths of 60 to 70 feet are from 3 to 6 feet shoaler than those on the prior surveys. From the 30-foot curve to the 18-foot curve, the present survey depths are generally 1/2 to 1-foot shoaler than the prior depths; from the 12-foot curve to the low-water curve no appreciable differences in depths are apparent.

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

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 critical information from the present survey applied before verification and review and from other sources.

(2) The platform charted since 1924 in lat. 37°35.17' long. 76°25.38' was not mentioned in the records of the present survey and does not appear on photographs of the area. Falling in depths of about one foot it is assumed to be no longer in existence and should be disregarded.

The present survey is adequate to supersede the information charted in this area.

B. Dredged Channels

The present survey depths in the dredged channel southwest of Parrott Island are in agreement with the charted controlling depth of 4 feet. The controlling depth in the dredged channel southeast of Parrott Island which leads into Mill Creek is 10 feet on the present survey whereas the charted depth is 11 feet.

C. Aids to Navigation

The charted positions of buoys No. "4" and No. "5" in Lacklies Creek no longer adequately mark the deep water in this area. All other aids to navigation, as presently charted, are in substantial agreement with the present survey and properly mark the features intended.

7. Condition of Survey

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

8. Compliance with Project Instructions.

The survey adequately complies with the Project Instructions except for the investigation of the platform mentioned in paragraph 6A (2) which had been encircled in the Pre-survey Review of the area.

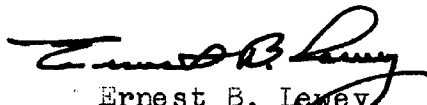
9. Additional Field Work.

The survey is considered basic and no additional field work is recommended.

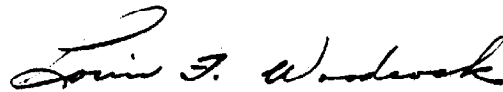
Examined and Approved:


Max G. Ricketts

Chief, Nautical Chart Branch


Ernest B. Lewey

Chief, Chart Division



Lorin F. Woodcock
Chief, Hydrography Branch



Samuel B. Grenell
Chief, Coastal Surveys Division

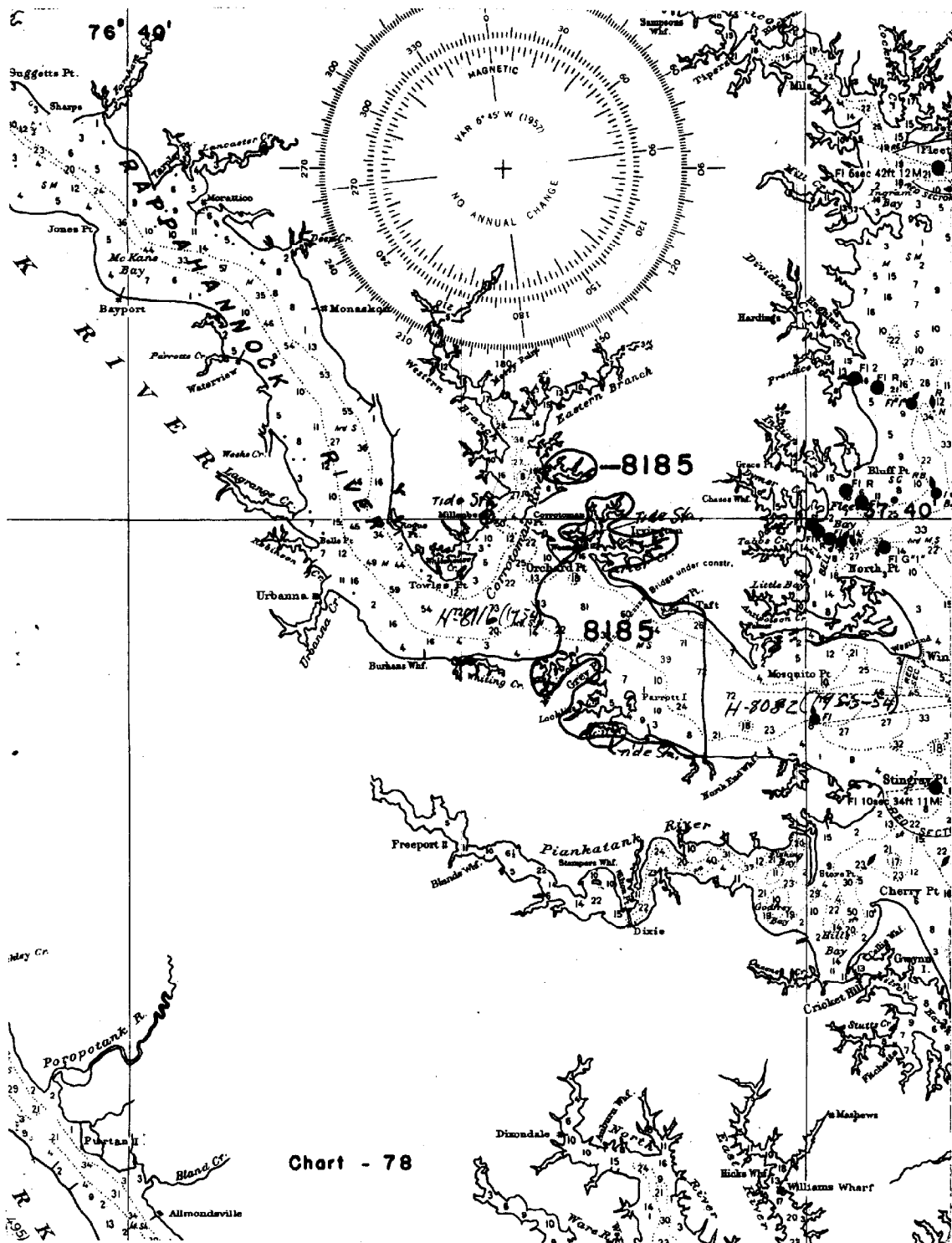


Chart - 78

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8185

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
12-13-53	1223	M. Rogers	Before After Verification and Review Partially
3-8-57	534	R.K. de Sauter	^{Partially applied} Before After Verification and Review. <i>Critical</i> conditions only.
9/23/59	534	J.H. Eaton	Before After Verification and Review Fully Applied
5-2-60	1223	R.K. de Sauter	Before After Verification and Review <i>than 534.</i>
1/4/61	78	J.H. Eaton	Before After Verification and Review <i>than 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
			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.