

7612

Diag. Cht. No. 78-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. CO-1648 Office No. H-7612

LOCALITY

State Virginia

General locality James River

Locality Coggins Point to Bermuda Hundred

1948

CHIEF OF PARTY

E. B. Latham

LIBRARY & ARCHIVES

DATE Sept. 21, 1949

7612

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. H-7612

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. CO-1648

REGISTER NO. H-7612

State VIRGINIA ✓

General locality JAMES RIVER ✓

Locality COGGINS PT. TO BERMUDA HUNDRED ✓

Scale 1:10,000 ✓ Date of survey 6 OCT. to 26 OCT., 1948 ✓

Vessel COWIE

Chief of Party ECTOR B. LATHAM ✓

Surveyed by ECTOR B. LATHAM & CHAS. A. SCHOENE ✓

Protracted by ANDREW ANNINOS

Soundings penciled by " "

Soundings in ~~FOOT~~ feet ✓

Plane of reference MLW ✓

Subdivision of wire dragged areas by _____

Inked by W. Klein

Verified by W. Klein

Instructions dated 12 MARCH, 1948.

Remarks: _____

NOTES FOR DESCRIPTIVE REPORT

Sheet CO-1648
Ship COWIE

H 7612 (1944)

Ector B. Latham
Commanding

A Project:

The sheet is part of Project CS-255, Amended Instructions dated 12 March 1948. ✓

B Limits ^{and} ~~Ada~~ Dates:

James River, Virginia., Coggins Point (junction with sheet CO-1548)(H-7611)(1948) to Bermuda Hundred, (junction with sheet H-7083)⁽¹⁹⁴⁶⁾, including part of Bailey Creek and Eppes Creek. Work commenced ~~15~~ October and ended 23 October 1948. ✓

C Vessel And Equipment:

Launch No. 102 and ARK, operating from Ship COWIE, using Submarine Signal Co, 808 portable depth recorders - see report for sheet H-7160 for speed, characteristics, etc., (1946-48) ✓

D Tide And Current Stations:

Auto Portable Tide Gages at Wilcox Wharf and Jordan Point, and Auto Portable Gage close to the Standard Gage at Hopewell, Va., (for convenience in obtaining reducers. MLW on gages was supplied by the Washington Office by comparison between the gages with reference to MLW at Hopewell. The Office determination differs from MLW as determined by the Field Party, (frog hopping up the river) by 0.2 feet. Field Party value was used in reducing soundings on the boat sheets, but Office value is used in entering soundings in the records. ✓

The gage at Jordan Point was installed on a wrecked barge, which was found to be subject to flotation just before high water, due to insufficient breach in the hull. Records from this gage were forwarded to the Washington Office and hourly heights were furnished the party after evaluation by the Office. (hourly heights filed with fathograms) ✓

Tide reducers have been entered as follows; Coggins Point to a line between Indian Point and Harrison's Landing, - Jordan Point -20 minutes; Indian Point etc., to Long. 77-15 ~ Long. ^{Jordan Point} 77-15 to Bermuda Hundred - Hopewell. Exceptions:- Wilcox Wharf gage plus 30 minutes was used on 6 October 1948 "a" day Launch 102 Coggins Point to Harrison's Landing and Wilcox Wharf plus 50 minutes, same day, west of Harrison's Landing, reason, faulty operation of the Jordan Point Gage. No current stations were occupied. ✓

E Smooth Sheet: (by Processing Office)

F Control Stations:

Triangulation by various parties, coordinated and brought to 1927 NA datum by parties of H. E. Finnegan (1938) J. Bowie Jr (1942) and I. E. Rittenberg (1942).

Hydrographic signals on East portion of sheet - to Jordan Point are triangulation stations, or are taken from graphic control sheet *CO-48-G. West of Jordan Point, signals are triangulation stations, or are connected to triangulation stations by short traverse. *T-7114 (1948); (Subsequently destroyed); Desc. Report attached to this Report

All signals re are considered to be satisfactorily located. See "List of Signals" attached hereto. (page 6.) and 9.

G Shore Line And Topography:

Shore line from air photo compilation (sheet Nos. etc., by Processing Office) ^{T-8086, T-8087, T-8090, T-8091 (1941-44)}
Generally speaking, the high water line is correct as furnished by Norfolk Processing Office, but discrepancies apparently exist in the representation of marsh line between and North of Indian Point and Jordan Point. (Discrepancies resolved)

Comparison between marsh line shown on ARK boat sheets and the air photo compilation should be carefully made by the Processing Office when preparing the smooth sheet. (Proper consideration given boat sheets)

Spoil Islands North of Tar Bay - vegetation symbols have been shown on ARK boat sheet. Due to lapse of time between photographs and hydrography, it is felt that some change may have taken place. No evidences of rapid erosion were noted. See also L*M "Preliminary Review Items" 1-2 chart 531 - wrecked barges shown on air photographs.

Indicated LWL ^{from} (air photographs) ^(disregarded) between Jordan Point and Bailey Creek was not confirmed by hydrography. It is believed that industrial waste and filth from Hopewell manufacturing ~~caused~~ caused discoloration of the water surface which could have been mistaken for low water line on photographs.

Wharf, Lat. 37-18.7 Long. 77-16.1 is in ruins and should be so charted, only rotted piling remains. (noted in Review, par. 6 A)

Considerable discrepancy is noted with respect to the low water line North-east of Jordan Point. (L.W.L. on smooth sheet is from reduced sqs.)

H Soundings:

Depths were measured by 808 type recording fathometers, supplemented by hand lead and pole. Shoal areas, less than two feet and in soft mud were often traversed by ARK when no trace was found on graph and in some instances when boat was listed to raise fish. No sounding in the record less than two feet should be changed as a result of reference to fathograms.

I Control of Hydrography:

Standard methods of visual control using 3 point fixes on hydrographic signals were used except in creeks where boat sheet positions were used. All areas surveyed are adequately controlled. Limit of sheet at mouth of Appomatox River represents the approximate limit of good fixes using the available signals. Dock Surveys, variations from standard methods of control was employed in the survey of Solvay Process Wharf, (insert) on scale of 1/1000. Ranges were set on shore, parallel to face of wharf, 10 meters apart, and soundings launch was operated along these ranges. In smooth plotting, lines should be drawn on sheet (as above) and spacing along lines plotted from angles recorded. Reference to boat sheet for which range must be made.

J Adequacy Of Survey:

Survey is complete and adequate for charting purposes, and to supersede previous surveys. Junctions with concurrent surveys H-7611, ⁽¹⁹⁴⁶⁾ and previous survey H-7085 ⁽¹⁹⁴⁶⁾ are satisfactory with respect to area coverage. No depth discrepancies are evident from inspection of the boat sheets. Depth curves can be adequately drawn at junctions. Further comment by the Processing Office after smooth plotting is indicated. Note that improved channels in the area are not developed as natural channels would have been. The improvements are surveyed periodically by the U. S. Engineers. O.K.

K Cross Lines:

Crosslines are in excess of specifications contained in instructions. Excess due to different line systems, indicated by trend of the main channel, existence of many subordinate channels in the area surveyed, and junctions ARK and Launch. Crossings appear generally satisfactory from inspection of boat sheets, but further examination should be made after smooth plotting. (depths at crossings in very good agreement)

Please note that changes in tide reducers have occurred between plotting soundings on boat sheets and entering reducers for smooth plotting.

Ark (20h - 25h) X (148 - 149h - 144-155h) 172-173h ~~Examination of record book~~ Southwest of Jordan Point. Examination of record book after entering corrections indicated discrepancies of 0.3 to 0.5 feet at crossings.

(discrepancies negligible; are not apparent on smooth sheet)

L-M Comparison With Previous Surveys - Charts:

U. S. Engineer Surveys, dates, scales etc., to be supplied by the Processing Office. (Engr. surveys to 1946)

- PRELIMINARY REVIEW ITEMS:

Item 1-2, "Wrecks, Source T-8087 (1941-42)" There are a number of wrecks in the area. reference to the air photos shows that the charted wreck symbols are not representative of the actual conditions. As a matter of fact inspection of the chart indicates that satisfactory anchorages for small vessels can be found in the ^{depth} ~~to~~ of deep water lying west of the wreck symbols. Such is not the case. Recommendation is made that the actual area fouled by these hulks be delineated, and shown as "foul". (notes "foul with wrecks" supplement wreck symbols)

- 37 Item 3, "Wrecks and Tree;- Source T-8090 (1941)" (a) Wreck symbol Lat. 37-19.32, Long. 77-15.85 wreck is no longer in evidence, symbol should be expunged. (b) Sunken wreck Lat. 37-19.54 Long. 77-16.14 soundings of zero feet (correct to fractions after smooth plotting) were found approximately 0.1 mile South of the charted symbol. Inspection of fathograms indicate that the wreck has been filled in by sand, and that there is no evidence of projecting timbers. The symbol should be expunged and the soundings charted. (c) Tree Lat. 37-19.58 Long. 77-16.36 - No tree exists at location shown, but a bare shoal exists, symbol should be expunged and shoal charted. (d) Wrecks Lat. 37-18.9 Long. 77-17.3 - off limits of sheet. Piling, Lat. 37-18.75 Long. 77-13.50 "Piling" should be charted as submerged piling. Piling does not show above water (see also "Landmarks for charts" wreck of barge). Piling, Lat. 37-20.1 Long. 77-15.95 - piling does not show above water except at low water. "Piles" should be shown as "Submerged Piles" or piles awash. Green tinted area Lat. 37-18.64 Long. 77-15.9 - This is a bare sand bar. * ~~It should be expunged.~~ Wharf, Lat. 37-18.7 Long. 77-16.1 wharf is in ruins and should be so charted (see also "shore line and topography") Piling Lat. 37-20.3 Long. 77-16.35 - correctly charted. ✓

* This low-water feature is ~~pre~~ correctly charted.

Swash Channels etc., are discussed under "Coast Pilot Notes" previously submitted - attention is called to six foot curve North-East of Jordan Point.

N Dangers And Shoals:

Submerged piling - Harrison's Landing - Lat. 37-18.72 Long. 77-10.84 submerged piling extends offshore approximately fifty yards ← from visible outer edge of dock ruins. An old pile, bare one foot at MLW was located at the position given (pos. 97a, Launch 102) but there is no assurance that additional submerged piling does not exist outside the position.

Review,
par. 6A (2)

Review
par. 6A (3)

Review,
par. 6A

Submerged Wreck Lat. 37-18.92 Long. 77-12.48 wreck of launch, bare 2 feet at MLW, marked by iron stake at northern end. Obstruction, 8 feet in general depths of 12-13, Lat. 37-18.23 Long. 77-12.03 (indicated as obstruction on smooth sheet)

Wrecks West of Jordan Point; (Located on Air Photographs) numerous underwater obstructions exist in the vicinity of these hulks, most of which have been burned. Area should be shown as foul ground* - see also "Coast Pilot Notes" See Page 4 previously submitted. (notes "foul with wrecks" supplement wreck symbols)

Foul Ground, inside wharf ruins, Lat. 37-18.65 Long. 77-16.15 - the area inside the old wharf is obstructed by old piling etc. Wreck, bare 2 feet at MLW, Lat. 37-18.61 Long. 77-16.07. Submerged Wreck, 9 1/2 feet in general depths of 13 feet, was found in Lat. 37-18.77 Long. 77-15.93 probability of considerably less water due to mast or superstructure on hull, (tow boat on air photo, now sunk). Foul Ground along N. E. shore of City Point. Old piles etc, extend 50 yards offshore Lat. 37-19.05 Long. 77-16.34 to 16.46 (Snag, Lat. 37-19.65 Long. 77-16.45, bare 5 feet at MLW, in general depth of 5 feet. Another snag Lat. 37-19.70 Long. 77-16.37, general depth 1 foot, bare 4 feet at MLW. Large timber, Lat. 37-19.10 Long 77-16.34 bare 0.5 foot at MLW, at edge of mud flat North of ~~North of~~ N&W Railway wharf.

These items all correctly indicated on smooth sheet

- O Coast Pilot Notes: (Previously Submitted) ✓
- P Landmarks For Charts: See form 567 attached hereto. ✓
- R Geographic Names - no application ✓
- S Silted Areas: No silted areas of any importance in evidence. ✓
- T By-Product Information: - no application ✓
- U Miscellaneous:

Bar Checks:

Bar checks as determined by each boat have been compiled and uniform velocity corrections applied throughout the sheet. Variations in fish mounting, ARK have been compensated for by initial settings. Corrections have been entered and checked by the field party. (Filed with fathograms)

Respectfully submitted

*Doctor B L Latham
Chief of Party.*

LIST OF SIGNALS

SHEET # 7612 (1948)

CO-1648

✓ TIN	Tri Sta.	Tin Warehouse, South Gable
✓ DOC	" "	Westover Dock, flag on pile
✓ YAM	GC	CO-48-G (T-7114, 1948, subsequently destroyed) Desc. Report
✓ WES	do	do attached to this Report)
✓ GIN	do	do
✓ BET	do	do
✓ FIS	Tri Sta.	Harrison's Landing, fishing shack, west gable
✓ EX	GC	CO-48-G
✓ ADD	do	do
✓ HI	do	do
✓ DAN	Tri Sta.	Jordan Point Front Range Light
✓ IND	GC	CO-48-G
✓ LAG	do	do
✓ VER	do	do
✓ CAR	DO	do
✓ ART	do	do
✓ JOR	Tri Sta.	Jordan Point Rear Range Light
✓ RICH	do	Richmond YMCA Building, South Chimney
✓ EP (T.p.)	do	△ EPES, Ep - Bail 16-33 M Dist 15.85M
✓ BAIL	do	Bailey Creek Light
✓ INK (T.p.)	do	△ Van 2, INK - BAIL 00-00 dist 29.3M
✓ SOL	do	Hopewell Solvay Process Co, James River Light #111
✓ SHOR	do	Hopewell Hummel Ross Co, Lower of Two stacks
✓ TAL	do	" " " " Taller of Two Stacks
✓ EL	do	" Solvay Process Co, Highest part of elevator
✓ TUB	do	Turbize Artificial Silk Co, Stack, Center.
✓ RAIL	do	Hopewell N&W Railroad Depot South-East end Chimney
✓ CIT	do	City Point Light
✓ APP	do	Appomatox River Light, 1942
✓ YEL	do	Hopewell, Yellow House N.E. Chimney
✓ FIX		Transferred from Sheet H-7083 - T-8090
✓ HUND	Tri Sta.	Bermuda Hundred Light
✓ TURK	do	Turkey Island Cut - light No. 1, 1942
✓ ROT		Transferred from Sheet H-7083 T-8090
✓ CUT	do	do - stuck out on Boat Stack T-8090
✓ SEE	Tri Sta.	JEC (USE)
✓ ABLE	do	JEA (USE)
✓ HIM	do	Eppes Island, Large White House, Chimney on Center
✓ PAC (T.p.)	do	△ PACK 2, PAC - TAL, 22-14 dist 24.5M

PILE	044	Located by plane table method on boat sheet, insert, scale 1-1000
TEL	87104	do
MID		do
NOR		do
CORN		do
DIM		do
END		do
OUT		do
BRICK		do

STATISTICS

ARK, Signal building and control October 1.
do do October 2.

Date	Vol.	Ltr.	Stat. Miles	Soundings H.L.&Pole	Pos.	Boat
6	1	a	25.5	16	194	LCH 102
6	2	a	21.5	-	178	ARK
7	2-3	b	27.9	-	200	ARK
7	1	b	18.6	5	129	LCH 102
14	3	c	17.6	-	175	ARK
15	1	c	8.3	-	63	LCH 102
15	3-4	d	13.2	842	101	ARK
16	4	e	15.0	-	121	ARK
16	5	d	8.1	37	106	LCH 102
17	5	e	15.4	48	157	LCH 102
17	4	f	11.5	-	94	LCH 102
18	6	g	13.6	-	119	ARK
18	5	f	15.4	2	108	LCH 102
19	5-7	g	16.4	6	153	LCH 102
19	6-8	h	27.9	-	213	ARK
20	8	j	16.3	11	166	ARK
21	8	k	13.1	3	106	ARK
21	7	h	12.3	49	128	LCH 102
22	7	j	1.0	84	55	LCH 102
22	8-9	l	20.8	-	193	ARK
23	9	m	0.6	-	8	ARK
Totals:			310.0	503	2767	

Area: Square Statute Miles - 10.0

LIST OF SIGNALS

H-7612

TRIANGULATION STATIONS

SHOR - HOPEWELL, HUMMEL-ROSS CO., LOWER OF TWO STACKS, 1932
 - EPPES, 1910-42
 ABLE - J.E.A. (U.S.E.), 1942
 SEE - J.E.C. (U.S.E.), 1942
 - PACK 2, 1942
 - VAN 2, 1942
 TIN - TIN WAREHOUSE, SOUTH GABLE, 1942
 FIS - HARRISON'S LANDING, FISHING SHACK, WEST GABLE, 1942
 TAL - HOPEWELL, HUMMEL-ROSS CO., TALLER STACK, NORTHERLY OF TWO, 1932-42
 DAN - JORDAN POINT, FRONT RANGE (LIGHT), 1938-42
 JOR - JORDAN POINT, REAR RANGE (LIGHT), 1942
 RICH - RICHMOND Y.M.C.A. BLDG., SOUTH CHIMNEY, 1942
 TUB - TUBIZE ARTIFICIAL SILK CO., STACK, CENTER, 1942
 BAIL - BAILEY CREEK LIGHT, 1938, 1942
 RAIL - HOPEWELL, N.&W. RAILROAD DEPOT, SOUTHEAST END, CHIMNEY, 1942
 SOL - HOPEWELL, SOLVAY PROCESS CO., JAMES RIVER LIGHT NO. 111, 1942
 EL - HOPEWELL, SOLVAY PROCESS CO., POLE, HIGHEST PART OF ELEVATOR, 1942
 APP - APPOMATTOX RIVER LIGHT, 1938, 1942
 HUND - BERMUDA HUNDRED LIGHT, 1938, 1942
 CIT - CITY POINT LIGHT, 1938, 1942
 HIM - EPPES ISLAND, LARGE WHITE HOUSE, CHIMNEY ON CENTER, 1942
 YEL - HOPEWELL, YELLOW HOUSE, NORTHEAST CHIMNEY, 1942
 DOC - WESTOVER DOCK, FLAG ON POLE, 1942
 TURK - TURKEY ISLAND CUT, LIGHT NO. 1, 1938, 1942

TOPOGRAPHIC SIGNALS

GRAPHIC CONTROL SHEET CO-48-G - T-7114(1948) subsequently destroyed; Desc. Report
 attached to this Report.

ADD	ART	BET	CAR	EX	HI
IND	LAG	VER	WES	YAM	

EP - TRIANGULATION STATION EPPES, EP-BAIL 16-33M, DIST. 15.85M
 INK - TRIANGULATION STATION VAN 2, INK-BAIL 00-00, DIST. 29.3M
 PAC - TRIANGULATION STATION PACK 2, PAD-TAL 22-14, DIST. 24.5M

TRANSFERRED FROM T-8090 -

FIX	ROT
-----	-----

LOCATED BY PLANE TABLE METHOD ON BOAT SHEET, INSERT, SCALE 1-1,000 -

PILE	TEL	MID	NOR	CORN
DIM	END	OUT	BRICK	

Light List	Lat.	m.	Long.	m.	Depth	Pos. No.	Date
James River Buoy #126	37°-20'	659	77°-16'	270	22'	14h (Launch)	10-21-48
James River Buoy #123	37°-19'	1600	77°-16'	813	?	4g ark	10-18-48
James River Buoy 122	37°-19'	1038	77°-16'	872	15½'	8g (Launch)	10-19-48
Buoy #1	37°-19'	530	77°-16'	1017	17'	10g (Launch)	10-19-48
James River Buoy #120	37°-19'	568	77°-16'	877	16½'	9g (Launch)	10-19-48
James River Buoy #118	37°-18'	1790	77°-16'	352	24½'	124e (Launch)	10-17-48
Channel Buoy #2	37°-18'	969	77°-15'	1389	22'	131e (Launch)	10-17-48
Channel Buoy #1	37°-18'	840	77°-15'	1208	25'	133e (Launch)	10-17-48
James River Buoy #116	37°-18'	1045	77°-15'	1275	23½'	130e (Launch)	10-17-48
James River Buoy #114	37°-18'	803	77°-15'	857	18'	134e (Launch)	10-17-48
James River Buoy #108	37°-18'	1370	77°-14'	277	26½'	150e (Launch)	10-17-48
James River Buoy #105	37°-19'	77	77°-13'	101	21'	190a (Launch)	10-6-48
James River Buoy #103	37°-19'	46	77°-12'	502	23'	147a	10-6-48
James River Buoy #102	37°-18'	1810	77°-11'	1378	34'	179a	10-6-48
James River Buoy #99	37°-18'	1195	77°-11'	775	25'	19a	10-6-48
James River Buoy #98	37°-18'	887	77°-10'	1248	21'	10a	10-6-48
James River Lighted Buoy #97 FL W, 4 sec.	37°-18'	774	77°-10'	1322	27½'	8a	10-6-48
James River Lighted Buoy #100 FL R, 4 sec.	37°-18'	1298	77°-11'	703	28'	18a	10-6-48
James River Lighted Buoy #104 FL R, 4 sec.	37°-19'	248	77°-12'	627	24'	146a	10-6-48
James River Lighted Buoy #106 FL R, 4 sec.	37°-19'	245	77°-13'	206	23'	189a	10-6-48
James River Lighted Buoy #107 FL W, 4 sec.	37°-18'	1365	77°-14'	4	28'	151e (Launch)	10-17-48
James River Lighted Buoy #111 FL G, 4 sec.	37°-18'	558	77°-15'	144	16'	145e	10-17-48
Ferry Channel Marker Buoy	37°-19'	290	77°-13'	370	9½'	92d	10-16-48

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

~~TO BE DELETED~~ STRIKE OUT ONE

Norfolk, Virginia

17 December, 1948

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.

Robert B. Latham

Chief of Party.

GENERAL LOCALITY	NAME AND DESCRIPTION	POSITION		DATUM	METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
		LATITUDE ° ' "	LONGITUDE ° ' "							
	Break Symbol ✓	37-19.50	77-15.08							531 ✓
	Tree ✓	37-19.57	77-16.57							531 ✓
	"H B n" and Symbol <i>Removal</i>	37-19.58	77-12.08							530-531 ✓
	"H B n" and Symbol { <i>C.L. 890 (1948)</i>	37-19.50	77-13.19							530-531 ✓
	Break Symbol	Point of Jordan	Point (See notes for Descriptive Report - Sheet H-7612)							531
	Water Tower	37-17.79	77-10.04							530

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

ADDENDUM
To Accompany

HYDROGRAPHIC SMOOTH SHEET H-7612 (Field No. Co-1648)

Hydrographic Survey H-7612 was smooth plotted by the
Hydrographic Section of the Norfolk Processing Office.

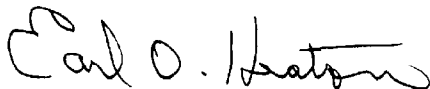
Respectfully submitted,



Hugh L. Proffitt
Cartographer

Norfolk, Virginia
14 September 1949

Approved and forwarded.



Earl O. Heaton
Supervisor, SE Dist.

GEOGRAPHIC NAMES

Survey No. H-7612

Name on Survey	Source of Name									
	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>Virginia</u>				(for title)					US&B	1
<u>James River</u>				"					"	2
										3
<u>Coggins Point</u>	✓	200 ²								4
<u>Tar Bay</u>	✓	175 ¹								5
<u>Chappell Creek</u>	✓	126 ¹								6
<u>Indian Point</u>	✓	175 ²								7
<u>Jordan Point</u>	✓	175 ²							US&B	8
<u>Harrisons Landing</u>	✓	146 ¹								9
<u>Kimages Creek</u>	✓	126 ¹								10
<u>Eppes Creek</u>	✓	146 ¹							US&B	11
<u>Eppes Island</u>	✓	200 ²							"	12
<u>Packs Point</u>	✓	175 ²								13
<u>Bailey Creek</u>	✓	140 ¹								14
<u>City Point</u>	✓	175 ¹								15
<u>Appomattox River</u>	✓	200 ²	200 ²							16
<u>Bermuda Hundred</u>	✓	140 ¹								17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Names underlined in red are approved

10-3-49 L. Heck

(see charts 530 & 531 for placement of names)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. CO-48-G

REGISTER NO. T-7114

State VIRGINIA

General locality JAMES RIVER

Locality MAYCOCK PT. TO JORDAN PT.

Scale 1:10,000 Date of survey 1&2 OCT., 19 48

Vessel COWIE

Chief of party ECTOR B. LATHAM

Surveyed by " " "

Inked by " " "

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated 12 MAR., 19 48

Remarks: _____

DESCRIPTIVE REPORT.

GRAPHIC CONTROL SHEET CO-48-G. T-7114 (1948) (subsequently destroyed)
Scale 1/10 000.

SURVEYED BY SHIP COWIE,

Ector B. Latham, Comdg.

AUTHORITY:

Amended Instructions, Project C.S. 255.
Instructions dated 12 March, 1948.

LOCALITY:

James River, Va., Maycocks Point to Jordan Point.
Covers parts of Hydrographic Sheets Co- 1548 and 1648.
H-7611 H-7612 (1948)

CHRONOLOGY:

Field work done on 1 and 2 October, 1948.

GENERAL:

Insufficient control was furnished by Triangulation Stations, due in g
large part to the spoil islands north of Tar Bay.

DESCRIPTION OF COAST:

No features exist not readily recognized on the Air Photo Compilation.

CHARACTER OF CONTROL:

Triangulation executed by the party of John Bowie, Jr., 1942, and
on the North American 1927 Datum.

LANDMARKS:

Several landmarks presently charted should be expunged. Water Tank
Coggins Point has disappeared; Chimney at Indian Point is now obscured
by trees. (Form 567 attached)

CLOSING ERRORS:

Work consisted of graphic triangulation and location of signals close
to triangulation stations. No large errors are apparent from triangles of
error.

AUXILIARY METHODS ETC.

Signal "Lag" located on a weak intersection was compared to sextant
angles observed and found to be correct with respect to subject angles,
giving a strong intersection.

LIST OF PLANE TABLE POSITIONS:

None, no landmarks were found.

*This graphic control survey was compared with contemporary hydrographic
surveys. No further review was necessary. The sheet has been subsequently
destroyed.*

J. A. Dinsmore
3/6/50

Respectfully submitted

Ector B. Latham
Ector B. Latham, Chief of Party.

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7612....

Records accompanying survey:

Boat sheets ..3..; sounding vols. 9....; wire drag vols.;
bomb vols.; graphic recorder rolls ..10.envel.
special reports, etc.
.....

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

Number of positions on sheet	2767.
Number of positions checked	387.
Number of positions revised	7.
Number of soundings revised (refers to depth only)	80.
Number of soundings erroneously spaced	40.
Number of signals erroneously plotted or transferred	0.
Topographic details	Time 52.
Junctions	Time 7.
Verification of soundings from graphic record	Time 8.

Verification by ..*William Klein*.... Total time ..444. Date *Feb. 17, 1950*

Reviewed by.....*J. A. Winsmore*..... Time ..38 hrs. Date ..*6, Mar. 1950*

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

5 October 1949

~~Division of Hydrography and Topography~~

Division of Charts: R. H. Carstens

Plane of reference approved in
9 volumes of sounding records for

HYDROGRAPHIC SHEET 7612

Locality James River, Virginia

Chief of Party: E. B. Latham in 1948
Plane of reference is mean low water, reading
2.0 ft. on tide staff at Hopewell
7.6 ft. below B. M. 1 (1941)

3.1 ft on tide staff at Wilcox Wharf
4.5 ft below B. M. 1 (1948)

1.8 ft. on tide staff at Jordan Point
5.7 ft. below B. M. 1 (1948)

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

Hopewell = 2.6 feet

Wilcox Wharf = 2.3 feet

~~Condition of records satisfactory except as noted below:~~

Jordan Point = 2.5 feet

E. C. Mc Kay
Section
Chief, ~~Division of Tides and Currents.~~

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7612

FIELD NO. CO-1648

Virginia, James River, Coggins Point to Bermuda Hundred
Surveyed in October 1948 Scale 1:10,000
Project No. CS-255

Soundings:

808 Fathometer
Hand lead
Pole

Control:

Sextant fixes on shore signals

Chief of Party - E. B. Latham
Surveyed by - E. B. Latham and C. A. Schoene
Protracted by - A. Anninos
Soundings plotted by - A. Anninos
Verified and inked by - W. Klein
Reviewed by - T. A. Dinsmore, 6 March 1950
Inspected by - R. H. Carstens

1. Shoreline and Signals

The shoreline originates with air photographic surveys T-8086, T-8087, T-8090 and T-8091 (1941-44).

The origin of the signals is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in very good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated.

The bottom is generally smooth. Spoil islands and extensive mud flats form a conspicuous part of the surveyed area. Depths in the main channel are maintained by dredging and range from 25 to 47 ft. Numerous snags, fish stakes and other obstructions contribute to the foulness of the inshore areas.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-7083 (1946) on the north (upstream) and H-7611 (1948) on the east (downstream).

5. Comparison with Prior Surveys

H-331 (1852) 1:10,000	H-1466a (1880) 1:10,000
H-394 (1859) 1:5,000	H-2147 (1892) 1:10,000
H-395(1859) 1:10,000	H-3219 (1910) 1:20,000
<u>H-1269(1875) 1:20,000</u>	<u>H-3226 (1911) 1:10,000</u>

These prior surveys comprise previous coverage over the area of the present survey during the periods indicated. Many changes have taken place in this area since the time of the prior surveys. Depth changes have resulted from dredging in some areas and sedimentation in other areas. The main channel has been dredged from prior minimum depths of 19 ft. (in 1911) to present minimum depths of 25 ft. Spoil deposits from channel dredging have created several islands and spoil banks adjacent to the channel. Since the time of the prior surveys, a ferry channel has also been dredged. Crossing the river in a north-northeasterly direction from Jordan Point, the ferry channel has a controlling depth of 6-7 ft. Further dredging is noted immediately west and northwest of Jordan Point where prior depths of 3 ft. are now superseded by depths of 6 to 17 ft.

A conspicuous example of shoaling is noted near the entrance to Eppes Creek where in lat. 37° 19.3', long. 77° 14.0', prior inshore channel depths of 7 ft. are now superseded by depths of $\frac{1}{2}$ to 1 ft. In the mouth of Eppes Creek and westward, further evidence of sedimentation is noted by accretions in the low-water line of as much as 900 meters.

Noticeable shoaling has also occurred east of Jordan Point where prior depths of 7 to 8 ft. in lat. 37° 18.25', long. 77° 12.83', have since decreased to present depths of 2 to 4 ft. This condition has probably resulted from erosion of the spoil banks in that vicinity.

Many other differences were noted but were considered of minor importance. The present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Chart 530 (Latest print date 5/23/49)
Chart 531 (Latest print date 10/27/47)A. Hydrography

Charted hydrography originates principally with the previously discussed surveys supplemented by surveys (to 1946) by the Corps of Engineers. Critical information has been

applied to the charts from advance information of the present survey as reported in Chart Letter, 110 (1949) and H.O. Notice to Mariners, 43 (1949).

The following discrepancies between charted information and the present survey are noted:

- (1) The dock charted in lat. $37^{\circ} 18.70'$, long. $77^{\circ} 16.15'$, from T-8091 (1941-42) was found to be in ruins during the present survey. It is noted that the dock was described on T-8091 as being in poor condition.
- (2) Adequate investigation on the present survey disclosed the following charted features (originating with T-8090, 1941-42) to be now nonexistent.

<u>Description</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Remarks</u>
Stranded wreck	$37^{\circ} 19.30'$	$77^{\circ} 15.85'$	Inshore near low-water line
Stranded wreck	$37^{\circ} 19.53'$	$77^{\circ} 16.14'$	Sand bar now covers; no projecting timbers
Tree	$37^{\circ} 19.57'$	$77^{\circ} 16.36'$	Sand bar uncovering 1 ft. at MLW at this location

- (3) The two groups of piling charted in lat. $37^{\circ} 18.75'$, long. $77^{\circ} 13.50'$, and lat. $37^{\circ} 20.12'$, long. $77^{\circ} 15.95'$, were determined on the present survey to be submerged piling and piling awash at MLW, respectively.

Attention is also directed to the wrecked barge (uncharted) located in lat. $37^{\circ} 18.75'$, long. $77^{\circ} 13.45'$, on the present survey. The barge is a recommended landmark (Form 567 attached to Desc. Report). *Charted as ~~SI~~ LAM*

The present survey supersedes the charted information.

B. Dredged Channels

Present survey depths in the dredged channel are generally 1-2 ft. deeper than the charted controlling depths of 24 ft. and 25 ft. (Corps of Engineers, May and Dec. 1946 and Oct. 1949). The charted controlling depth of 25 ft. eastward from Jordans Point is subsequent to and supersedes the present survey.

C. Aids to Navigation

No positions were determined on the present survey for buoy "N-124" charted in lat. $37^{\circ} 20.10'$, long. $77^{\circ} 16.32'$ and the light charted in lat. $37^{\circ} 18.45'$, long. $77^{\circ} 15.94'$. The buoy and light are both listed in the 1949 Light List.

The buoy charted in lat. $37^{\circ} 19.83'$, long. $77^{\circ} 16.57'$, was located on the present survey about 60 meters N.N.E. of the charted position. The charted position of the buoy is being revised to agree with the survey position (H.O. Notice to Mariners, 8, 1950).

The present survey positions of the following floating aids to navigation differ from the charted positions by 50 to 100 meters:

Charted Positions

Buoy S-2	Lat. $37^{\circ} 19.20'$	Long. $77^{\circ} 17.04'$
" N-118	Lat. $37^{\circ} 18.93'$	Long. $77^{\circ} 16.22'$
" N-116	Lat. $37^{\circ} 18.53'$	Long. $77^{\circ} 15.83'$
" S-1	Lat. $37^{\circ} 18.47'$	Long. $77^{\circ} 15.86'$
" C-103	Lat. $37^{\circ} 19.04'$	Long. $77^{\circ} 12.38'$
" N-98	Lat. $37^{\circ} 18.48'$	Long. $77^{\circ} 10.78'$

Both the survey and charted positions of the above buoys appear to adequately serve the purpose intended.

The two range beacons (Chart 531) in lat. $37^{\circ} 19.38'$, long. $77^{\circ} 12.82'$, and lat. $37^{\circ} 19.2'$, long. $77^{\circ} 13.18'$, were reported in Chart Letter 890 (1948) as no longer existing. They are so indicated on the chart (aid) standard.

All other aids to navigation on the present survey are in substantial agreement with those charted and adequately mark the features intended.

7. Condition of Survey

- a. The sounding records and Descriptive Report are complete.
- b. The smooth plotting was satisfactory.
- c. No descriptions could be found for several topographic signals which fall outside of the low-water line. It is presumed that these undescribed signals were of a temporary nature.
- d. Several discrepancies were noted between the present survey and the air photographic manuscripts in the location of fish traps and minor topographic details. Permanent features were generally accepted from the air photographic manuscripts except where the later field data of the present

survey indicated a change. Inasmuch as fish traps are subject to change, their hydrographic locations (of later date) were accepted as being more reliable.


8. Compliance with Project Instructions

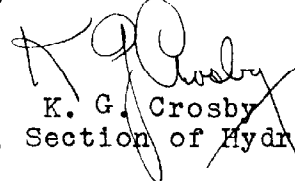
The survey adequately complies with the Project Instructions.

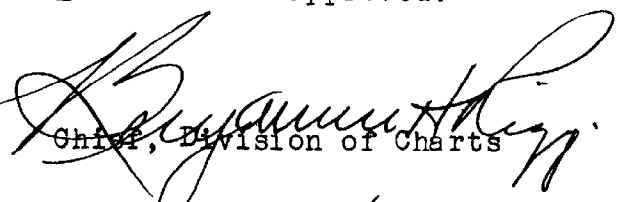
9. Additional Field Work


This is a basic survey and no additional field work is required.

Examined and approved:


H. R. Edmonston
Chief, Nautical Chart Branch


K. G. Crosby
Chief, Section of Hydrography


Chief, Division of Charts


W. M. Scalfe
Chief, Division of Coastal Surveys

