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Diag. Cht. No. 78-2

Department of Commerce and Labor  
COAST AND GEODETIC SURVEY

U. S. & G. SURVEY,  
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JAN 30 1911  
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Superintendent.

State: *Virginia*

DESCRIPTIVE REPORT.

*Hyd. 2* Sheet No. *3219.*

LOCALITY:

*James River - Buckler's  
Point to City Point.*

*1900-1911*

CHIEF OF PARTY:

*O. W. Ferguson*

3219

# 3219

DEPARTMENT OF COMMERCE AND LABOR:

COAST AND GEODETIC SURVEY.

O. H. TITTMANN, Superintendent.

Resurvey of the Chesapeake Bay, Virginia.

Revision of the James River.

TITLE SHEET.

For ~~Topographic~~ & Hydrographic Sheet No. <sup>3219</sup> ~~1591~~ b,

Second Section.

between

Latitude  $37^{\circ} 17' 00''$  to  $37^{\circ} 20' 00''$  N.

Longitude  $77^{\circ} 07' 00''$  to  $77^{\circ} 16' 40''$  W.

SCALE 1:20000.

From October 21, 1910 to January 6, 1911.

SCHOONER "MATCHLESS".

O. W. Ferguson, Assistant, C. & G. S. In Command.

OBSERVERS.

O. W. Ferguson, Assistant; James E. Marsh,  
Mate; Chas. A. Mourhess; Aid; Jehn W. Clift,

Chief Writer.

RECORDER.

H. W. Gedsey, Writer 2cl.

LEADSMEN.

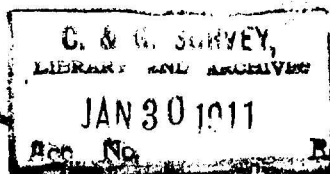
A. C. Pinder, S. M. M. : S. L. Jackson, Q. M. 3cl.

TIDE OBSERVERS.

C. P. Holland, C. B. M.

A. L. Williams, O. S.

P. O'Brien, M. A. 1cl.



# 3219

DEPARTMENT OF COMMERCE AND LABOR.

COAST AND GEODETIC SURVEY.

O. H. TITTMANN, Superintendent.

Resurvey of the Chesapeake Bay, Virginia.

Revision of the James River.

Descriptive Report,

For ~~Topographic~~ & Hydrographic Sheet No. ~~1391~~<sup>3219</sup> b,

Second Section.

between

Latitude 37° 17' 00" to 37° 20' 00" N.

Longitude 77° 07' 00" to 77° 16' 40" W.

SCALE 1:20000.

From October 21, 1910 to January 6, 1911.

SCHOONER "MATCHLESS".

O. W. Ferguson, Assistant, C.& G.S. In Command.

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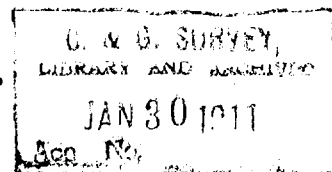
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The topography of City Point was done anew and in the mapping, for the sake of appearance of this sheet, the town is put on. On the old sheets it is only shown on sheet 1438, just above this, ~~1391~~ b. *Hyd. Sheet 3219*

#### CONTROL.

Ample control of this work is furnished by the scheme of triangulation executed.

The Declination of the Magnetic Needle at Station Palmer  $\phi$   $37^{\circ} 18'$  1697 m.  $\lambda$   $77^{\circ} 16'$  604 m. determined gave  $3^{\circ} 19'$  18" West.

This being much less than as found at Willcox Wharf  $\phi$   $37^{\circ} 19'$  29m.  $\lambda$   $77^{\circ} 05'$  1353m. of  $5^{\circ} 54'$  W., and at Sandy Point  $\phi$   $37^{\circ} 14'$  434m.  $\lambda$   $76^{\circ} 56'$  573m.,  $4^{\circ} 58'$  W. I went to the Station on head of Eppes Island,  $\phi$   $37^{\circ} 19'$  1129m.  $\lambda$   $77^{\circ} 15'$  1440m. (and found the declination to agree almost exactly with that at  $\Delta$  Palmer on the opposite side of the river)  $3^{\circ} 18'$  57" W.

This stretch of the James River contains Tar Bay and Bailey Creek Bay, two very wide places in the river though most of the width is a mud flat, with but a few inches of water at low tide, and reaches to City Point just below where the Appomattox River joins and where is another wide expanse of water most of which is shallow. From here to Richmond the River assumes a more and more narrow width.

#### SHORES.

The shores on this sheet are wooded for several hundred feet more and less back from the river and rise to a varying height on the North side of from a few feet to twenty feet, and on South side generally higher, from a few feet, to 65 feet.

Some stretches of the shore are swampy where the gum and cypress trees thrive and the ground is covered at high tide, and marshy and muddy at low tide; many stretches are sand, and other stretches as below Eppes Island and around City Point are shingled with stones, small boulders, from an ounce to 20 pounds, in weight.

The low and muddy areas of the river here, present the same bare aspect as below, the grass having all disappeared, due to some new phenomenon<sup>or</sup>, some say from freezing at low tide and pulling up grass as tide rises; some say from the great floods of modern times, still these phenomena are not new, yet whereas there was great areas of grass up to ten years ago, now, much to the regret of the sportsman and fishermen, it has disappeared and the most evident reason is the work of the Hog fish or German Carp.

#### LANDINGS.

The regular steamboat landings on this sheet are at Westover Wharf and City point. The first is only a landing place for local passengers and for shipping produce from and to the surrounding country. City Point is by far the most important but its business has fallen off greatly of late years. Formerly large vessels of 1800 tons, were loaded with tobacco, grain, flour and merchandise for foreign ports, England and Brazil, and brought back molasses, coffee and mdse. The larger vessels were lightered at Berkely and below Jamestown Island. The channel now is not altogether as efficient and ships used are larger. It is the terminus of the branch of the Norfolk and Western R.R. from Petersburg, Va., and brings to this point large quantities of lumber, etc., which is shipped in barges

towed to Baltimore and Norfolk; and ships away from here large quantities of grain, peanuts, etc. that is unloaded here from the steamers. The town has a large freight depot, two supply stores, two churches, a post office and telephone service.

#### CREEKS.

Powells Creek is the most important, furnishing 6 feet at low tide, is about two miles long and 75 metres wide and is deeper inside, furnishing from 12 to 18 feet depth; has several wood landings; small schooners, lighters and gasoline Launches take out lumber, ties, piles, wood and supplies.

Herring Creek affords 4 feet at mouth and affords navigation for small Batteaus and flat boats which lighter out wood and ties. Inside there is a good depth of water; it is nearly three miles long and 80m. wide.

Baileys Creek is shut out by mud flat and could not be entered.

Eppes Creek furnishes 1/2 foot at low water. It is of small consequence, can be entered by flat boats for lightering out wood.

#### WATER.

Artesian water is obtained in fair flow in all of this region. This adds much to the health of the people. I, nearly always, secure artesian water for drinking purposes for the ship. Artesian water had not been found, 1860 to 1864, when the armies were active through here.

#### OCCUPATION.

There is no manufacturing, no packing houses on this sheet but a considerable lumber is sawed and shipped; this and farming, the navigation of the river, distribution of supplies and

shipping products furnish the occupation of the people.

#### PRODUCTS.

The products are Corn, Oats, Wheat, Peanuts, Poultry, Pork and some cattle. Peanuts is the money crop of the farmer these years; whereas formerly, with cheap help, they sold for .50 a bushel, now, using machinery mainly, they bring \$ 1.25 to 1.50 a bushel and hundreds of thousands of bushels are shipped. Wood, ties, lumber and piling are also shipped, to Baltimore and New York.

#### NAVIGATION.

This is aided during the day by buoys, and at night by Maycox and Harrison Bar Range Lights, by Jordan Point Light and Black Beacon off Baileys Creek Flats.

The only changes in depths from former surveys noted are off Baileys Creek and Coggins Point where the channel shows a filling up of from two to three feet.

List of positions to accompany  
~~Topographic~~ and Hydrographic Sheet <sup>3219</sup> ~~1391~~ b. (2d. section).

	Position Computed			
	Latitude	D.M.	Longitude	D.P.
Bailey	37 18	560.1	77 15	815.0
Bermuda	37 19	1574.1	77 17	229.7
Blair	37 17	1646.8	77 07	1373.8
Buck	37 18	879.5	77 07	1128.7
Cardine	37 19	942.7	77 12	802.0
Church(Baptist)	37 20	880.2	77 17	632.4
Coggins	37 17	1836.7	77 09	1304.1
Endicotts(Water Tower)	37 17	1424.9	77 10	47.9
Eppes	37 19	657.0	77 14	422.3
Harrison	37 18	1596.3	77 11	241.8
Harrison(Water Tower)	37 19	180.6	77 10	1258.3
Hauger	37 18	1188.4	77 07	638.6
Hundred	37 20	861.7	77 16	364.1
Indian(Old Stone)	37 18	447.6	77 12	516.2
Island	37 19	1129.1	77 15	1440.0
Jordan(U.S.E.B.M. (given	37 18 38 18.8	1451.4	77 13 77 13.4	629.0
Jordan Point Light House	37 18	1442.2	77 13	627.7
Major	37 19	887.5	77 13	728.0
May	37 18	21.6	77 08	1067.7
Over	37 18	1133.2	77 08	1288.9
Palmer(very near) old '71	37 18	1697.1	77 16	604.1
Pack	37 19	94.9	77 15	1298.1
Pen	37 17	1667.2	77 06	1308.4



List of positions to accompany  
~~Topographic~~ and Hydrographic Sheet <sup>3219</sup> ~~1391~~ D. (2d. section).

## Position Computed

	Latitude	D.M.	Longitude	D.P.
River	37 17	207.4	77 11	476.9
Spencer (very near ' 71 )	37 17	1817.0	77 08	1253.2
Spire (Episcopal Church)	37 18	1421.5	77 16	922.4
Van	37 17	1563.6	77 14	459.7
West (U.S.E.B.M. ( given	37 18 37 18.6	1097.5	77 09 77 09.9	1335.3
Westover (Water Tower)	37 18	1316.3	77 08	1284.9
Windmill (at Grants Headquarters)	37 19	23.1	77 16	1005.8

## Positions plotted from computation of triangles.

End	37 19	106.0	77 16	996.0
High Pile	37 17	318.0	77 11	737.0
Lightning Rod	37 17	1300.00	77 14	245.0
Pile below Depot	37 18	1601.0	77 16	469.0
Pinder	37 18	1188.0	77 10	1186.0
Upper Gable Depot	37 18	1753.0	77 16	600.00

## Positions plotted from Sextant Angles.

Gum	37 19	334.0	77 15	695.0
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JAN 30 1911

STATISTICS <sup>lyde</sup> Sheet # <sup>3219</sup> ~~3591~~ 3. 8c

**3219**

Second Section.

DATE 1910 & 1911.	Letter	Positions	Soundings	Miles Statute	Vessels.
November 18	a	67	549	17.3	Steam Launch
January 5	b	47	299	8.2	
6	c	16	130	2.5	
	3	130	978	28.0	
November 16	a	40	307	5.5	Whaleboat
17	b	79	613	11.7	
18	c	46	352	6.7	
December 7	d	8	65	1.0	
8	e	82	832	13.0	
8	e	22	219	3.25	
9	f	19	186	3.0	
15	g	60	552	8.55	
	7	356	3126	52.7	

RECAPITULATION.

Steam Launch	3	130	978	28.0
Whaleboat	7	356	3126	52.7
Total	10	486	4104	80.7

VEC  
Mar. 14, 1911.

Hydrographic sheet 3219.

James River, Virginia, Bucklers Point to City  
Point, by Asst. O. W. Ferguson in 1910-1911.

TIDES.

	City Point ft.
Mean low water, or plane of reference on staff	2.6
Lowest tide observed " "	0.9
Highest " " " "	6.3
Mean range of tide	2.8

Coast and Geodetic Survey  
MAR 21 1911  
TIDAL DIVISION

Hyd sheet No 3219

See report with Hyd sheet 3202

Hyd Sheet Nos 3202 & 3219

May 4, 1911.

This survey which covers the river from Brandon Pt to City Pt shows very little, if any, change in depth through the channel although the depth over the flats is a little less than shown by the the previous survey.

The development is very good over the whole area covered, the lines cross well and the records were kept in a satisfactory manner.

H. L. Simons

Hyd Sheet Ch. 3219.

May. 15, 1911,

See report with Hyd Sheet No 3226

ALS

Hyd Sheets Nos 3226, 3227, 3219, 3241 + 3241<sup>c</sup> May 15 1911

The survey shown on these sheets extends from City Pt to Richmond. While it is not a close development it is sufficient to show the change that has taken place and the depths that can now be carried through the channel.

There has been a deepening in the channel at several places so that 18 feet can now be carried over the whole length of this part of the river.

The field work was evidently very carefully done as there are but few crossings where the soundings do not agree perfectly.

The records were kept in a satisfactory manner.

J. H. Simmons