

C. & G. SURVEY, LIBRARY AND ARCHIVES MARI 151910 Aco No.

Department of Commerce and Labor
COAST AND GEODETIC SURVEY Superintendent. DESCRIPTIVE REPORT. Sheet No. 3047-4

#### 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.

Descriptive Report of Hydrographic Sheet 3045. Register Number.

Between,

Latitude 36 54" to 37 07' N.

Longitude 78 24' to 76 40' W.

SCALE 1:20000.

From July 16,1910 to July 23, 1910.

SCHOONER "MATCHLESS".

O. W. Farguson, Assistant, C.& G.S., In Command. OBSERVERS.

James E. Marsh, Mate; J. George Dobie, Aid;

John W. Clift, C.W.; C.P. Helland, C.B.M.

RECORDER.

H. W. Godney W. 2cl.

LEADSMEN.

M. L. Tabor, S.M.M.

J.B. Ireland, Q.M.SC.

TIDE OBSERVERS.

C. P. Helland, C.B.M.

N. E. Lusby, Sea,

AUG 5 1910

Acc No.

### 3045\*

C. & G. SURVEY, LIBRARY AND ARCHIVES MAR 1 51910 Acc. No.

DESCRIPTIVE REPOI

# 3045

To accompany U. S. S. ENDEAVOR Boat sheet, JAMES RIVER, VA., NEWPORT NEWS to MULBERRY POINT and tracings accompanying topographic sheets Nos. 1265 and 1266, showing re-survey of topography of shore line and supplementary hydrography.

JANUARY AND FEBRUARY 1910.

This survey was for the purpose of the revision of the charts of the James River.

A tertiary triangulation was carried up the river for the purpose of the recovery of the old stations where possible and for the determination of new points where needed for the topographic and hydrographic points. A number of stations established by the U.S.E.D. and by the Bureau of Fisheries were included in the triangulation.

The topography consisted of re-running the shore line indicating changes where found and inserting new objects such as wharves, houses etc.

The hydrography consisted of a system of lines across the river about one mile apart and also the examination of a number of places indicated on charts sent from the office.

Three small shoals are shown which are dry at low water.

Two at the east and west ends of Naseby Shoal near Newport News and one about 1/2 mile N.W. of White Shoal Light House.

A search was made for a ten foot spot shown on chart 401-a about 1-1/2 mile N.W. of White Shoal Lt.Ho., but no indications of it could be found. In addition to the soundings shown, many others were taken with the boat drifting slowly over and around the locality searching for the spot. A search was also made for the 150 foot spot shown 1-1/2 mile S X W of Jail Island, but 97 feet was the deepest water found.

In this case also many unrecorded soundings were taken over the locality while searching for the spot.

Tidal observations were made at Newport News and at Fergusons Wharf opposite Point of Shoals Lt. Ho.

The tidal observations and soundings were reduced and plotted in the field on the boat sheet and on the tracing accompanying the topographic sheet.

Respectfully submitted,

Assistant, Coast and Geodetic Survey,

Conmanding U. S. S. Endeavor.

J. D. Boutun

## GEOGRAP TIMAR A 51910

Locality James River, Va.

Newport News to Mulberry Points No. Stations determined 1909--1910.

| STATIONS.               |            | LA         | TITUDE.  | Seconds in Meters. |     | LON        | GITUDE. | Seconds in<br>Meters.  |
|-------------------------|------------|------------|----------|--------------------|-----|------------|---------|--|
| •                       |            |            |          |                    |     |            |         |  |
| Pig.                    | 36         | 54         | 15.552   | 479.4              | 76  | 26         | 46.138  | 1142.2 "   |
| Parrel 2.               | 36         | 54         | 59.190   | 1824.5             | 76  | 28         | 53.738  | 1330.1-  |
| Cooper 2.               | 36         | 5 <b>?</b> | 26.829   | 827.0              | 76  | 29         | 12.765  | 315.8  |
| New.                    | 36         | 5 <b>7</b> | 50.603   | 1559.8             | 76  | 24         | 55.349  | 1369.2   |
| Cedar Flag.             | 36         | 55         | 10,575 - | 325.8              | 76  | 29         | 09.110  | 225.5  |
| Brown.                  | 36         | 00         | 46.58    | 1436.0             | 76  | 27         | 16.73   | 413.6  |
| Max.                    | 36         | 59         | 03.09~   | 95.3 -             | 76  | 31         | 29.32-  | 725.1  |
| Board.                  | 37         | 02         | 34.08.   | 1050.7~            | 78  | 29         | 34.32   | 848.3  |
| Cat.                    | <b>3</b> 0 | 5 <b>9</b> |          | 1763               | 76  | 33         |         | 164  |
| Aaron Shoal Lt. Reacon. | 37         | 00         | 47.91    | 1477.0             | 76  | 33         | 02.05   | 50.7·  |
| Gap Shoal Lt. Reacon.   | 37         | 00         | 45.53 v  | 1403.6.            | 76  | 33         | 55.99   | 1384.2   |
| Plunt.                  | .37        | 03         | 23.03-   | 710.0              | 76  | 31         | 13.18"  | 325.6  |
| Green.                  | 37         | 01         | 46.74    | 1441.0             | 76  | <b>3</b> 5 | 17.69   | 437.3  |
| Jail.                   | 37         | 04         | 25.79    | 795.1              | 76  | 33         | 45.67.  | 1128.1   |
| Tree.                   | 37         | 02         |          | 255 -              | 76  | 36         |         | 1081   |
| New Lawson.             | .37        | 02         | 07.10    | 218.9              | .76 | 37         | 25.27   | 1128.1 1081 1138.1 1138 |
| Turner.                 | . 37       | 02         |          | 1249               | .76 | 39         |         | 1074   |
| Jones (F)               | 37         | 03         | 59.80    | 1843.6             | 76  | 40         | 11.44   | 282.5  |
| Snell.                  | 37         | 06         | 15.70 ·  | 484.0              | 76  | <b>3</b> 5 | 55.83   | 1378.5. Å  |
| Clay.                   | 37         | 05         |          | 55 <b>3</b> .      | 76  | 39         |         | 1037 .   |
| Oscar.                  | 37         | 06         | 37.45    | 1154.5             | 76  | 39         | 27.75   | 685.2  |
| Mulberry                | 37         | 07         | 30.76    | 948.3              | 76  | 37         | 44.24   | 1092.1   |

### POSITIONS.

State

AZIMUTH. BACK AZIMUTH. TO STATIONS. DISTANCE. LOGARITHMS.

Do not write in this margin.

ribrary and Auchille POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

AUG -5 1910

REFERRED TO

& G. SURVEY. LIBRARY AND ARCHIVES dilig 5 1910 Acc No.

EXPRESS OFFICE:

Assistant in Guarge.

Bepartment of Commerce and Labor COAST AND GEODETIC SURVEY

SCHOONER "MATCHLESS"

CLAREMONT, VA., AUGUST 3,1910.

DESCRIPTIVE REPORT OF HYDROGRAPHIC SHEET SUPPLEMENTARY TO 3045 AND 3045a. JAMES RIVER, VA.

Supplementary Soundings are shown in Black. The soundings made by Captain J.B.Boutelle are copied on the same tracing and shown in green.

Every rain that falls upon the light leaming clay soil of Virginia, along the James River washes a quantity of material into this river and sometimes it is a large quantity.

There is no jetty principle at work to sweep this material into the Bay and Ocean as in a nontidal River, producing an inevitable filling up of the flats and basins of the river.

There was a heavy rain at its headwaters and about Riche mend two weeks ago and the water is still turbid and yellew from the effects of the material and coloring matter then washed into the basin which the james is obliged to take care of and she does this with the least possible injury te navigation. Nevertheless the work of diking and dredging will increase.

O. W. Ferguson

Assistant, C.& G. Survey

Commanding.

C. & G. SURVEY, LIBRARY AND AKCHIVES ÁUG 5 1910 Ácó No.

### STATISTICS Sheet No. 3045 &3045 a.

| DATE | 1910. | Letter     | Vols. | Positions | Soundings | Miles<br>Statute | Vessel.  |
|------|-------|------------|-------|-----------|-----------|------------------|----------|
| July | 16    | a          | 1     | 32        | 220       | 4.2              | Launch   |
|      | 20    | b          | 1     | 104       | 745       | 17.1             |          |
|      | 21    | ď          | 1     | 75        | 533       | 12.8             |          |
|      | 23    | d          | 1     | 67        | 468       | 13.0             |          |
|      |       | 4          | 1     | 278       | 1966      | 47.1             | •        |
|      | 19    | <b>a</b> . | 1     | 58        | 429       | 6.2              | Whalebos |

|              |   | REC | APITULATI |      |      |  |
|--------------|---|-----|-----------|------|------|--|
| Steam Launch | 4 | 1   | 278       | 1966 | 47.1 |  |
| Whaleboat    | 1 | 1   | 58        | 429  | 6.2  |  |
| Total        | 5 | 2   | 336       | 2395 | 53.3 |  |

13 agnare Miles.

64

#### STATISTICS

| Sheet No. 3045 & 3045a. |      |        |                  |             |        |        |  |
|-------------------------|------|--------|------------------|-------------|--------|--------|--|
| Date                    | 1910 | Letter | Statute<br>Miles | Soundings   | Angles | Vessel |  |
| July                    | 25   | a      | 1.5              | 62          | 22     | Launch |  |
| July                    | 27   | ъ      | 12.2             | 516         | 146    | Launch |  |
| Aug.                    | 1    | c      | 12.3             | 413         | 112    | Launch |  |
| Aug.                    | 2    | d      | 10.0             | 5 <b>21</b> | 124    | Launch |  |
| Aug.                    | 5    | 6      | 12.2             | 506         | 144    | Launch |  |
|                         |      | 5      | 48.2             | 2018        | 548    |        |  |
|                         |      |        |                  |             |        |        |  |

Area 12 19, miles

#### HYDROGRAPHIC SHEET 3045.

2022 W

Newport News to Pagan Creek, James River, Virgina, by Assistants J. B. Boutelle and O. W. Ferguson, In 1910.

#### TIDES.

|  |               | Newport News ft. | Fergussons Wharf |
|--|---------------|------------------|------------------|
| Mean low water, or plane of reference on a | staf <b>f</b> | 1.8              | 2.0              |
| Lowest tide observed "                     | n             | 0.0              | 1.6              |
| Highest " " "                              | n             | 6.6              | 5.1              |
| Mean range of tide                         |               | 2.6              | 2.4              |

NOV 17191!

#### HYDROGRAPHIC SHEET 3045a.

Pagan Creek to Point of Shoals Light and Mulberry
Point, James River, Virginia, by Assistants J. B. Boutelle
and O. W. Ferguson, in 1910.

#### TIDES.

|  | Newport News ft. | Fergussons Wharf ft. |
|--|------------------|----------------------|
| Mean low water, or plane of reference on staff | 1.8              | 2.0                  |
| Lowest tide observed " "                       | 0.0              | 1.6                  |
| Highest " " " "                                | 6.6              | 5.1                  |
| Mean range of tide                             | 2.6              | 2.4                  |

NOV 171911

The Short It's 30454 3045 Left 8, 1910.

The shannel wether the area concret by

the two surveys is fauly well developed with

the exception of the 17 of afort in the westle

of the channel about lovide southeast of Shorte

Should It. Ho, and the first when the channel

should to 19 feet about 12 mile about Point

of Shoule It

The source felow Shorte should It Ho is

meanflete.

Affirmers

.

ŧ