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Department of Commerce and Labor
COAST AND GEODETIC SURVEY

O. H. Tittmann
Superintendent.

State: *Va.*

DESCRIPTIVE REPORT.

Top. Sheet No. *3456*

LOCALITY:

Panama, I.

1914

CHIEF OF PARTY:

W. E. Parker

11-4645

3456

Descriptive Report to Accompany Topographic Sheet No.3456,

Sting Ray Point Cove, Parramore Island, Virginia.

Survey Methods.- The positions of the house on the southeast end of Revel Island, of the windmill at Revel Island Club, and of the lone cedar tree on Parramore Island were determined by plane table triangulation on sheet No.3454, scale 1:10,000. These positions were then transferred to this sheet by tracing paper, doubling the distances between each, and the line of direction of table station E from the windmill was transferred in the same way. Station E was then occupied with this sheet on the table and was determined by the lines of ^{sight} to the two remaining control stations. The other table stations, A to H, were determined by the usual method of plane table triangulation.

The mean low water line was determined by sounding out from the shore until a depth equal to the height of the tide above mean low water had been reached. The rodman was kept informed of the height of the tide by an observer stationed at the tide staff, who as often as necessary, signalled to him the staff reading (the staff having been set with 0 at the height of mean low water). The mean low water line was traced by the rodman keeping in a depth equal to the tide and holding up his rod for the topographer to read whenever the line changed direction. For the purpose of measuring depths, a scale of feet and tenths was laid off on the reverse side of the telemeter rod. When the sights were excessively long and at important changes in direction, the rodman set a stake, the position of which was later checked by cross cuts from other table stations.

Shore Lines.- The full lines indicate the shore line at the stage of mean high water, but this is only an approximation as the south end of Parramore Island, eastern shore of the cove, is a low sand spit but little above ordinary high tides and so nearly level that the exact position of the line could not have been determined without running levels. It is so changeable that the exact determination of this line would be useless.

The north shore of the cove is a low marsh, submerged at ordinary high water nearly to Bench Mark No. 2; there is no visible high water line here. A line of low sand dunes extends northwestward from about 25 feet north of the bench and marks the line of extreme high tides. The broken line indicates the edge of the marsh at this time.

Mean low water shore line and the outline of the flats to the extent which they bare at mean low water are indicated by dotted lines. As the bottom of the cove is mostly sand - mixed with mud at places - it probably shifts considerably from time to time, and it is extremely doubtful if these lines would be found in the same places at another time.

The several small areas of marsh which lie at a little distance from the north shore of the cove are said to have formed within the last year or two and that at the time of a recent oyster survey there was no grass there. Persons acquainted with this cove state that important changes in low water mark occur frequently.

Stations.- Plane table stations B, E, and G and Bench Marks Nos 1, ^{and 2} were marked as noted on the sheet and can be recovered; the other table stations can not after the flags have disappeared.