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high water for all the tides in a month whose exact time of high water to low water could be read accurately enough to be the basis for an estimate. Out of the thirty-six complete tides there recorded, thirty-four show a greater length of time from high water to low water than from low water to high water. The mean delay of low water is eight minutes, or the time from high water to low water is on the average sixteen minutes greater than the time from low water to high water. It should be noted that this delay of low water in St. John harbour is not due to the fact that the harbour is at the mouth of a large river; this would tend to have exactly the opposite effect. For, shortly before low water would naturally occur, the inflow from the river neutralizes the outflow into the bay and thus causes the tide to turn earlier or the low water to come earlier. On the other hand, the upflow into the river just before high water would occur neutralizes the inflow from the bay and so causes high water to occur earlier. Now if high water and low water were thus hastened equally, there would be no change in the time from high water to low water or from low water to high water. But since on the whole there is a greater downflow from the river than upflow into it, it is clear that the river must hasten low water in the harbour more than it hastens high water. Hence we may conclude that did the river not exist, the delay of low water in the harbour would be slightly greater than eight minutes. No doubt part of this delay must occur whilst the tide is passing from Mispec Point inward. How much of it occurs during the passage of the tide up the bay must remain an open question.

IX. RESULTS AT OTHER POINTS ON RIVER.

The observations made at other points are given in Table IV and summarized in Table V. These tables show at Springhill, Fredericton, Oromocto, Gagetown, Oak Point, Westfield and Indiantown, (1) the mean spring-range (it being assumed that the spring-range at St. John is twenty-seven feet); (2) how much later high water is at each point than at St, John; (3) how much low water is delayed compared with high water. The last col Oa pa wa Sp

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