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worked up, as a basis for tide tables, and for the purposes of tidal comparison. The dotted lines in the table indicate that the work to which they refer, has not yet been done.

A considerable amount of tidal record, as indicated, has now been reduced and tabulated, and thus made ready for harmonic analysis. This analysis is only partially made as yet, for want of means to meet the necessary cost. It is only when this is done, that further improvement in the accuracy of the tide tables themselves will be secured. The additional record thus prepared, comprises two years at Quebec ; two years at St. John, N.B.; and one year at St. Paul Island.

Besides the stations indicated on the Atlantic coast, two good series of tidal observations are being secured on the Pacific coast, from the tidal stations established by the Department of Public Works. These are at Victoria, B.C.; and at Sand Heads at the mouth of the Fraser River in the Gulf of Georgia. One full year of tidal record from each of these stations has now been tabulated, ready for harmonic analysis. Tide tables might thus be prepared at once for these Pacific ports, if means were available to meet the cost of the calculations required.

The shorter tidal records obtained in the summer seasons, are not shown in the table. These now comprise nine secondary stations in the Gulf of St. Lawrence, eight secondary stations in the Bay of Fundy, and one at the outer end of Belle Isle Strait. The tidal record obtained at these, has already been detailed in the annual reports of progress, referring to the work of the seasons during which they were in operation.

Besides the use of this record as a basis for tide tables, the tides at the principal stations have been largely used also for comparison with those at the secondary stations, in working out tidal differences, by which the time of the tide at a number of other ports becomes known.

In addition to the tidal record itself, full meteorological data are being secured for comparison, throughout the period of these observations. A continuous barograph record has been obtained from the three tidal stations which command the Atlantic seaboard ; namely, Forteau Bay in Belle Isle Strait ; St. Paul Island ; and St. John, N. B. The daily weather charts issued by the Meteorological Service since 1896, are also received regularly and fyled. This service has also supplied since 1893, when the tidal observations themselves were commenced, a daily abstract of wind and barometer from ten meteorological stations throughout the area in question ; namely, from Quebec, Father Point, South-west Point of Anticosti, Belle Isle, Chatham in Miramichi Bay, Magdalen Islands, Sydney in Cape Breton, Halifax, St. John, N.B., and Yarmouth, N.S. Also since 1893, a complete set has been kept of the monthly Pilot Charts of the North Atlantic, issued by the U.S. Hydrographic Office. These charts show the tracks of all the important storms, and are very convenient for reference. The uonthly weather charts for Canada, have also been kept on fyle since their first issue in 1896.

TIDE TABLES .---- IMPROVEMENT IN ACCURACY ALREADY SECURED.

The following condensed summaries show the improvement in the accuracy of tide tables for our principal harbours, as already obtained by this Survey, when compared with other sources of information. This by no means represents all the progress made, however. Such tide tables as were available in the past, gave only the time of high water and low water ; but in the tidal predictions now issued by this Survey as annual tide tables for Halifax, Quebec, and St. John, N.B., the height of the tide is given as well as the time. This is important, as at two of these harbours the range of the tide is about thirty feet.

For our present purpose, in testing the accuracy of the tide tables as now calculated, a sufficient basis is afforded by a comparison between the time of high water as predicted in the tables, and the time as actually observed.

HALFAX.—The earliest tide tables issued by the Tidal Survey were for this port. They were based upon constants derived from the harmonic analysis of two years of old record, obtained in 1860 and 1861. These tide tables were issued as a booklet as early as 1891, before the plan was taken of supplying the information direct to the