

and goodwill of the Chief Signal Officer at Washington, warnings of expected storms in Canada were sent to Toronto, and thence forwarded to the various districts likely to be affected. By 1876 there were 15 stations in Canada reporting three times daily to Toronto, and reports from upwards of 50 American stations were also received at the observatory. Also the storm signal display stations had by this time been increased to 37, and observing stations of all classes numbered 115. Forecasts were first issued during the summer of this year, a chart of the weather with the probabilities for the ensuing 24 hours being prepared each morning at 10 o'clock and furnished to the Marine Exchange Board in Toronto for public inspection. After September 1, warnings were issued from the observatory without waiting for advice from Washington, and in October the daily forecasts were first printed in the Toronto evening papers.

The Meteorological Service was now completely established, and during the 45 years which have since elapsed, its growth has been steady, and its activities have greatly increased. At the time of writing (July, 1923) there are 686 observing stations, the records of which are published regularly in the "Monthly Record". The majority of these stations are necessarily in the more southern portions of the Dominion, but there are several stations in the Peace River district, at intervals in the Mackenzie River basin, between lake Athabaska and the Arctic sea, along the shores of Hudson bay and in the Yukon.

Publications of the Meteorological Service.—The "Monthly Record", which began as a two page issue in January 1877, is now a volume of 82 pages, including two maps, showing the distribution of precipitation and the temperature values and their departure from normal. A thirteenth number is published each year, containing the reports of stations received too late for the monthly issue, among which are usually those from the far north. From the inception of the Service until 1916, an annual Climatological Report was published, but the Monthly Records, with the supplement, bound together, now constitute the Annual Climatological Report of Canada.

In addition to the Monthly Record there is published within a week a meteorological map for the month just closed, showing the distribution of rainfall over the Dominion, the temperature and departure from normal, and also fairly comprehensive notes descriptive of the prevailing weather and the condition of vegetation, or in winter of the depth of snow and thickness of ice.

A Climatology of the Dominion is in progress. Parts I and II, covering British Columbia and the western provinces, have been published. Part III, for the province of Ontario, will shortly be sent to the printers and the part covering Quebec and the Maritime provinces will soon be ready.

A brochure containing the Meteorological Report of the Toronto Observatory has been published annually for over 60 years.

Weather Forecasting Service.—The particular work which brings the service most closely into the public eye is weather forecasting. Forecasts are issued from the central office, Toronto, for all parts of the Dominion east of the Rocky mountains, and from Victoria for British Columbia.

For the purposes of the weather map, on which forecasts are based, two daily reports, 8 a.m. and 3 p.m. Eastern standard time, are telegraphed to the central office, in Toronto from 39 stations in Canada, from 5 in Newfoundland and from Bermuda. Most of these reports are immediately forwarded to Washington, while Toronto receives about 100 similar reports from stations in the United States. Each report includes the reading of the barometer reduced to sea level, the tem-