

Canada and the World Weather Watch

To the sailor on a stormy sea, the airman approaching dark thunder-heads, and the resort-owner relying desperately on snow or sun, the weather is of crucial importance. Yet, despite its obvious influence on human activities, people tend to disregard the sometimes subtle but ever-present relations between weather and climate and our daily living and livelihood.

Although man has been exposed to the vagaries of the weather throughout the ages and has been forced to adapt his life and habits to them, only in relatively modern times has he seriously examined the ingredients and habits of the weather. The art of weather forecasting has been practised since the dawn of civilization but the science of meteorology is barely a century old. In this brief period, the atmosphere has been examined and measured, its changing nature has been observed and recorded. New instruments give more detailed and accurate data on temperature, radiation and turbulence.

Every nation in the world, large or small, whatever its location, shares with other nations a common concern for this vital influence, the weather, which moves across the earth's surface without regard for national boundaries or international agreements.

Daily Observations

Every day of the year about 100,000 observations of the weather are made at the earth's surface and another 11,000 observations are made of conditions in the upper atmosphere. These are selected from the national observing networks of the world's weather services for international exchange through regional and continental centres. Great care is taken to ensure that all observations are taken simultaneously at standard times, that the methods and procedures used, and even the order of observing and form of the coded messages, conform to international practice. Eight thousand land stations report regularly, as well as 3,000 transport aircraft and 4,500 ships. This fund of information feeds into forecast offices, research centres and climatological bureaus throughout the world, where it is analyzed, processed, examined and re-examined, and stored in rapid retrieval systems for application to the myriad problems waiting to be solved.

Much of the early progress in the development of organized weather services was due to sailors, for in the days of sailing ships a good seaman had of necessity to be a good observer and a shrewd judge of weather. The frequent loss of ships in violent storms brought marine officials together in Brussels in 1853 to arrange a system of weather reporting from ships with the help of the newly-developed wireless telegraph. From these first primitive steps in international co-operation grew the International Meteorological Organization established at a meeting in Holland in 1873, which in 1951 became the World Meteorological Organization (WMO), a Specialized Agency of the United Nations.