

which have ranged from  $-43^{\circ}\text{F.}$  in 1909 to  $7^{\circ}\text{F.}$  in 1926. The transition period from winter to summer and vice versa is remarkably short in the Yukon Territory, the rapid change in daily temperatures reflecting the changing altitude of the sun. At Dawson mean temperature rises from  $28^{\circ}\text{F.}$  to  $57^{\circ}\text{F.}$  between mid-April and mid-June. Summers though short are pleasantly warm with all stations reporting mean temperatures above  $50^{\circ}\text{F.}$  during the three months June, July and August. The long days and high sun during June result in the mean temperatures for June exceeding the mean for August. The highest temperature on record in the Yukon Territory is  $95^{\circ}\text{F.}$  at both Dawson and Mayo. The frost-free season is short, ranging from 21 days at Pine Creek Experimental Station to 85 days at Watson Lake. Freezing temperatures have been reported every month of the year at all stations except Frances Lake and Watson Lake.

Mean annual precipitation is remarkably uniform over most of the Yukon Territory ranging from 9 to 17 inches at the valley stations for which records are available. Orographic effects are noticeable in the distribution of precipitation in this rugged country. There is no pronounced wet or dry season although at most stations July and August are the rainiest months and spring has least precipitation. Winter snowfall averages 40 to more than 80 inches with the heaviest falls in the Liard Valley, in the St. Elias Mountains and on the westward slopes of the Mackenzie Mountains. Snow usually lies in the valleys from mid-October till early April. The snow and ice fields of the St. Elias Mountains provide an important source of water for the rivers in the southwestern part of the Territory.

### The Prairie Provinces

Bounded on the west by the mountains and foothills of the Rockies, the whole of the three Prairie Provinces consists of vast plains, deeply cut by river valleys and gently sloping towards the east and northeast. Despite the general uniformity of the prairies, there are numerous minor uplands, such as the Buffalo Mountain, Pasquia Hills, Porcupine Mountain, Duck Mountain, Riding Mountain, Turtle Mountain and the Cypress Hills, rising from 1,000 to more than 2,000 feet above the surrounding plain. However, the western mountains, forming as they do a fairly effective barrier to the maritime influence of the Pacific and at the same time leaving the area exposed to the inflow of cold Arctic air masses from the north, are more effective as a climatic control than the actual topography of the prairies.

Since there are no natural physical features sufficiently prominent to materially affect the climate in the Prairie Provinces, the natural vegetation regions serve as an indication of the general climatic regimes. In the south, a triangle with its base on the International Boundary and its apex about  $52^{\circ}\text{N.}$ , the prairie grassland, is a semi-arid area with hot summers. Surrounding the grasslands are the parklands, generally lying south of the North Saskatchewan River and south of Lakes Winnipeg and Manitoba in Manitoba. Precipitation is usually more reliable in the parklands and winters somewhat colder. Northward from the parkland is the forest, with an area of mixed forest and tundra in the extreme northern part of Manitoba.

Summers are normally warm for the latitude but winters are usually long and intensely cold. Consequently there is a very wide range between the temperatures of the warmest and the coldest months, running from about  $45^{\circ}$  in southwestern Alberta to  $70^{\circ}$  in southern Manitoba and  $75^{\circ}$  or  $80^{\circ}$  in the far northern sections of all three provinces.

Throughout the agricultural area of the three Prairie Provinces mean temperatures are below  $32^{\circ}\text{F.}$  from November through March. Winter cold increases from southwest to northeast. Several stations in southwestern Alberta have January temperatures exceeding  $15^{\circ}\text{F.}$  despite the relatively high elevation. In southeastern Saskatchewan and southern Manitoba, January mean temperatures are at least  $15^{\circ}$  colder and in far northern sections of all three provinces winter temperatures range from  $-15^{\circ}$  to  $-20^{\circ}\text{F.}$  for the coldest winter month.

Winter temperatures on the prairies may vary widely from month to month during a single winter or from year to year depending on the character and path of air masses passing over the region. In some winters, with a steady flow of cold polar air, a cold spell