inches in Ontario eastward to 50 inches in coastal Nova Scotia and Newfoundland. This abundant and reliable precipitation results from the frequent passage of frontal systems over southeastern Canada.

Provincial and Territorial Climates

British Columbia and Yukon Territory

This vast area extending from below latitude 49°N. to beyond the Arctic Circle is also one of diverse relief with elevations ranging from sea level to nearly 20,000 feet. Although 75 p.c. of the Province of British Columbia is more than 3,000 feet above sea level, nearly all settlement is on the floors and lower slopes of the valleys; consequently most of the available climatic data have been derived from low level stations. In the Yukon Territory, which has an area of more than 200,000 sq. miles, meteorological knowledge is confined to records from two dozen official weather reporting stations, of which some have records for only a few months. Three stations only—Dawson, Carcross and Mayo—have records extending back more than fifteen years.

Although it is possible to divide the area into broad climatic regions, the effects of altitude, topography and slope are of primary importance and significant variations in climate often occur within very short distances.

British Columbia Coast and Coastal Valleys.—This region includes the coastal islands, the coast, coastal valleys, west slopes and uplands of the coastal mountains. The coastline of British Columbia, in the sense of low-lying land fringing the sea, is narrow but it is indented with innumerable fiords some of which extend into the heart of the Coast Range, and with deep-cut river valleys of which several cut through the coastal mountains into the interior.

As the result of prevailing westerlies and the warm waters of the Pacific, the main climatic characteristics of the West Coast are the mild winters, warm but not hot summers, and small range of temperature. Although the whole area has the same broad climatic features, significant differences occur between the windward and leeward sides of the Coast Mountains, between the inner and outer sections of the fiords, and to a lesser degree with latitudes. In some of the valleys extending through the Coast Range, a complete transition from maritime climate at the mouth to continental climate in the interior takes place. Gales are frequent especially during the winter at exposed locations along the West Coast. The average wind speed, although noticeably higher than in the interior, is not high for an ocean coastline facing the westerlies. Topography exerts a strong influence on wind direction. Calms are rare along the open coasts and land and sea breezes are noticeable especially during the summer.

The West Coast is sheltered by the Coast Mountains from winter cold waves of polar air that sometimes penetrate into the interior of the province from the north and east. Uncomfortable heat in summer is unusual on account of the cool sea breezes which are likely to set in as soon as the land begins to warm up appreciably. As a result, temperatures seldom fall below zero in winter or rise above 90°F. in summer except far back from the coast. The dominating control of temperature by the ocean is indicated by the small variation from north to south over a distance of 500 miles along the Pacific Coast of British Columbia. The winters are mild as evidenced by January mean temperatures of 30° to 40°F., while in July mean temperatures do not exceed 60°F. at most coastal stations. The transition seasons are long drawn out as is illustrated by the fact that at Victoria the mean temperature rises less than 10°F. from March to May and falls only 12°F. from September to November.

The longest average frost-free season in Canada occurs along the coastal areas of British Columbia. The extreme southeastern tip of Vancouver Island enjoys a frost-free season of more than eight months. Generally, along the coast of Vancouver Island, along the immediate coast of the mainland, and on the small off-shore islands, the frost-free season exceeds 200 days. Shorter growing seasons occur where the maritime influences are reduced