

110° 48' W.) in the western portion. These show that the January average temperature is 30° below zero or lower. It should not, however, be assumed that the most extremely low temperatures occur in this region. On the contrary no such extraordinarily low temperatures have ever been known in the Archipelago as have occurred in northern Siberia, nor have the temperatures fallen so low as they have on occasion much further south. 79° below zero has been recorded at Fort Good Hope and at Fort Vermilion, 70° to 72° in the vicinity of Prince Albert and in the region just northwest of Edmonton, while officially recorded temperatures of 55° to 65° below zero have occurred in the northwestern United States and the official publications of the Imperial Russian government gave a figure of 90° below zero for Verkhoyansk in Siberia, as the lowest point touched in the period ending about 1900. But while the intensity of the winter cold has been surpassed in more southerly regions during the passage of exceptional cold waves, yet these far northern regions of the Archipelago and the adjacent mainland in midcontinent from late in December to early March experience long spells of great cold, sometimes unbroken for weeks, with temperatures such as one experiences only on occasional days during the winter in latitudes 45° to 55°. Thus from the 4th of December, 1923, to the 27th of February, 1924, the temperature did not rise above zero at Ponds Inlet, while on 28 days during that period the temperature fell to 40° below zero or lower at some time during the day. At the same place the temperature fell below 40° below zero on consecutive days from February 28th to March 26th, 1923, with the exception of the 7th of March, when it fell below 39° below zero during the night, rose to 18° below zero in the afternoon and fell again to 42° below zero on the following morning. Similarly, spells of two weeks or more when the temperature touches 40° below zero or lower each morning occur on Melville island. A notable feature of the weather in the Archipelago is that the prevailing direction of the wind is northwest at the western end and easterly at the eastern end, and that large rises and falls in temperature occur without any notable change in wind direction. Formerly the impression existed that there was constantly high atmospheric pressure in the polar Archipelago from which cold winds blew outwards. Daily pressure maps have, now, however been constructed for some years for this region at the Meteorological Office, and these show that on the contrary low pressure areas cross this region frequently, while high pressure areas pass south to the west of the Archipelago or lie to the east and northeast of it much more frequently than pressure maxima are located in these islands. The resultant direction of the wind at Melville island is approximately north 30° west at all seasons of the year.

Towards the end of April days usually occur in the Archipelago when the temperature rises above the freezing point, while in May it will ordinarily run from 10° or 15° above zero in the morning to 25° to 40° above zero in the afternoon, and occasionally but not every year to 60° or even 65°. In June and July the temperature rises more rapidly at Ponds Inlet than at Melville island. Temperatures of 70° or higher occur sometimes, and one record of 77° constitutes the extreme high temperature so far observed at Ponds Inlet. The average daily swing of the temperature in July is from 35° in the morning to about 50° in the afternoon. At Melville island in July the temperature is generally lower than at the eastern end of the Archipelago, rising each day from about the freezing point to a maximum of about 45° to 50°. Temperatures of 60° or higher occasionally occur.

After the middle of August wintry conditions may recur at any time but generally are delayed till September at Melville island and October at Ponds Inlet. Temperatures occasionally drop below zero in September at Melville island but