



## CLIMATE TRENDS AND VARIATIONS BULLETIN

This bulletin summarizes recent climate data and presents it in a historical context. It first examines the national average temperature for the season and then highlights interesting regional temperature information.

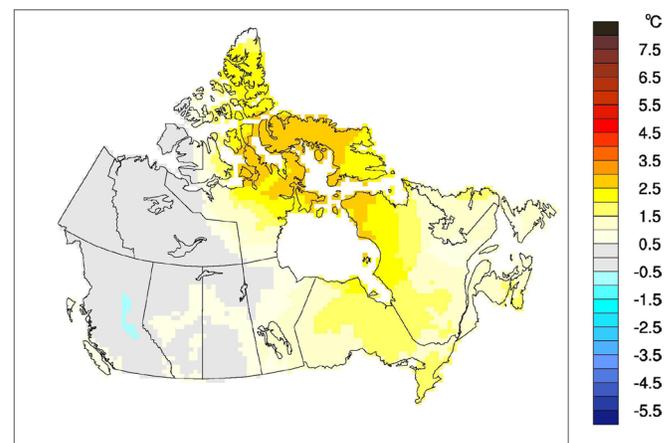
Over the past decade, precipitation monitoring technology has evolved and Environment and Climate Change Canada and its partners implemented a transition from manual observations to using automatic precipitation gauges. Extensive data integration is required to link the current precipitation observations to the long term historical manual observations. The update and reporting of historical adjusted precipitation trends and variations will be on temporary hiatus pending the extensive data reconciliation, and will resume thereafter. ECCC remains committed to providing credible climate data to inform adaptation decision making, while ensuring the necessary data reconciliation occurs as monitoring technology evolves.

### NATIONAL TEMPERATURE

The national average temperature for the summer (June–August) of 2020 was 1.1°C above the baseline average (defined as the mean over the 1961–1990 reference period), based on preliminary data, which is the 6<sup>th</sup> warmest observed since nationwide recording began in 1948. The warmest summer occurred in 2012, when the national average temperature was 1.8°C above the baseline average. The coldest summer occurred in 1978, when the national average temperature was 1.0°C below the baseline average. The temperature departures map shows that all of eastern Canada and parts of central Canada experienced summer temperatures above the baseline average. Most notably, northeastern Nunavut and northwestern Quebec experienced temperatures

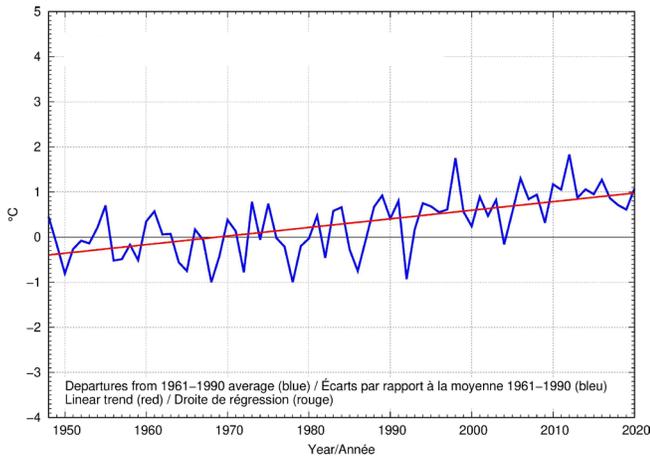
more than 2.5°C above the baseline average. Only one area of the country, in central British Columbia, experienced summer temperatures about 0.5°C below the baseline average. The rest of the country experienced temperatures close to the baseline average.

### TEMPERATURE DEPARTURES FROM THE 1961–1990 AVERAGE – SUMMER 2020



The time series graph shows that averaged summer temperatures across the country have fluctuated from year to year over the 1948–2020 period. With the exception of 2004, averaged summer temperatures have remained above the baseline average since 1993. The linear trend indicates that summer temperatures averaged across the nation have warmed by 1.5°C over the past 73 years.

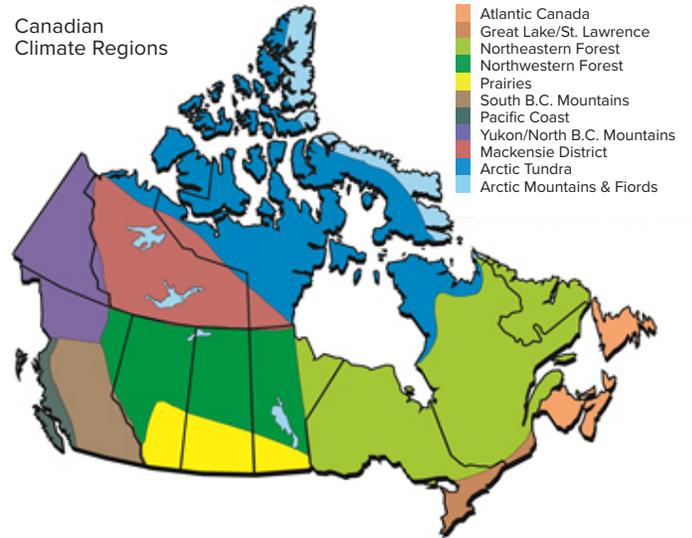
## SUMMER NATIONAL TEMPERATURE DEPARTURES AND LONG-TERM TREND, 1948–2020



## REGIONAL TEMPERATURE

When examined on a regional basis, average summer temperatures for 2020 were among the 3<sup>rd</sup> warmest for the Arctic Mountains and Fiords (at 2.3°C above average); the 4<sup>th</sup> warmest for the Northeastern Forest (at 1.5°C above average); the 5<sup>th</sup> warmest for the Great Lakes / St. Lawrence (at 1.5°C above average); the 6<sup>th</sup> warmest for the Arctic Tundra (at 1.8°C above average); and the 7<sup>th</sup> warmest for Atlantic Canada (at 1.2°C above average). None of the eleven climate regions experienced an average summer temperature for 2020 that ranked among the 10 coolest since 1948. All eleven climate regions exhibit positive trends for summer temperatures over the 73 years of record.

The strongest trend is observed in both the Mackenzie District and the Arctic Tundra regions (+1.7°C), while the weakest trend (+0.9°C) is found in the Prairies region. A table listing the regional and national temperature departures and rankings from 1948 to 2020 and a table that summarizes regional and national trends and extremes summaries are available upon request to [ec.btv-ctvb.ec@canada.ca](mailto:ec.btv-ctvb.ec@canada.ca).



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