



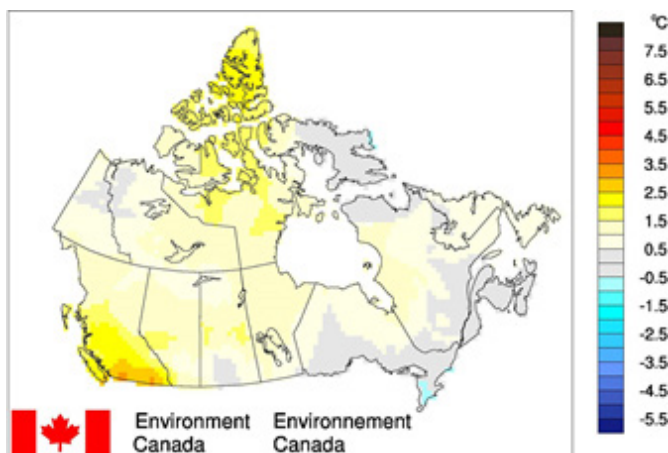
Climate Trends and Variations Bulletin – Summer 2015

This bulletin summarizes recent climate data and presents it in a historical context. It first examines the national average temperature for the season or year, and then highlights interesting regional temperature information. Precipitation is examined in the same manner.

National Temperature

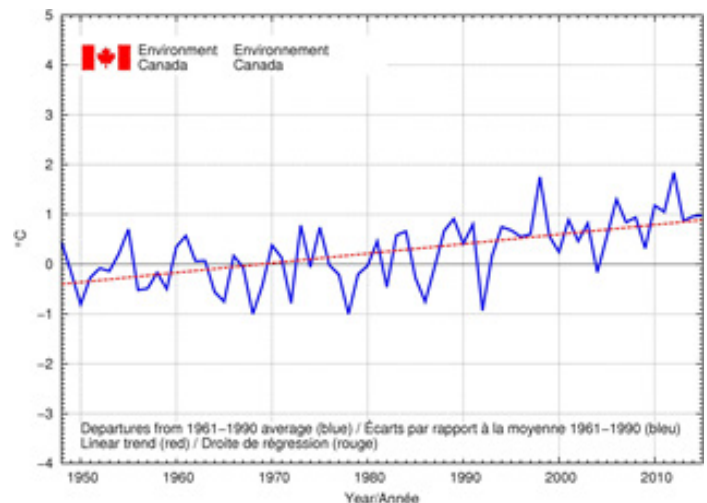
The national average temperature for the summer of 2015 was 1.0°C above the baseline average (defined as the mean over the 1961–1990 reference period), based on preliminary data, which is the sixth warmest observed since nationwide recording began in 1948. The warmest summer occurred in 2012, when the 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 for summer 2015 (below) shows that most of British Columbia, Alberta, Saskatchewan, Manitoba, northern Ontario, western Quebec, Newfoundland and Labrador, Yukon, Northwest Territories and western Nunavut experienced temperatures above the baseline average. Below-average temperatures were recorded in extreme southern Ontario. Temperature near the baseline average was found in the rest of the country.

Temperature Departures from the 1961–1990 Average – Summer 2015



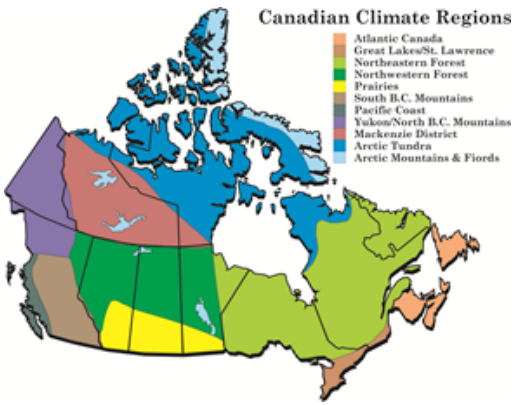
The time series graph (upper right) shows that, when averaged across the country, summer temperatures have fluctuated from year to year over the period 1948–2015. The linear trend indicates that summer temperatures averaged across the nation have warmed by 1.4°C over the past 68 years.

Summer National Temperature Departures and Long-term Trend, 1948–2015



Regional Temperature

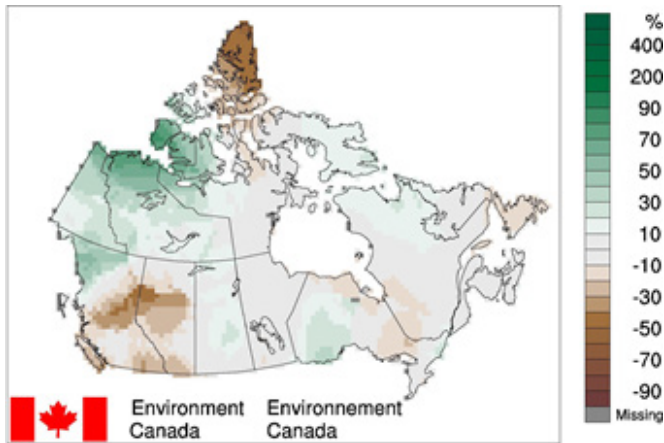
When examined on a regional basis, average summer temperatures for 2015 were among the 10 warmest on record since 1948 for 4 of the 11 climate regions: the South B.C. Mountains (2nd warmest at 1.9°C above average), the Pacific Coast (3rd warmest at 2.0°C above average), the Northwestern Forest (7th warmest at 1.2°C above average) and the Prairies (10th warmest at 0.9°C above average). None of the 11 climate regions experienced an average summer temperature for 2015 that ranked among the 10 coldest since 1948. All 11 climate regions exhibit positive trends in summer temperatures over the 68 years of record. The strongest trend is observed in the Mackenzie District region (1.8°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 2015 and a table that summarizes regional and national trends and extremes are available on request to CTVB@ec.gc.ca.



National Precipitation

The national average precipitation for the summer of 2015 was 5.4% above the baseline average, based on preliminary data, making it the 17th wettest summer since nationwide recording began in 1948. The wettest summer was 2005 (15.4% above the baseline average) and the driest summer was 1958 (13.9% below the baseline average). The precipitation percent departure map for the summer 2015 (below) shows conditions notably wetter than average for northern British Columbia, northern Yukon, northern Northwest Territories and western Nunavut. Drier-than-average conditions were mainly experienced in central and southern British Columbia, central and southern Alberta, and on Ellesmere Island. Precipitation near the baseline average was found in the rest of the country.

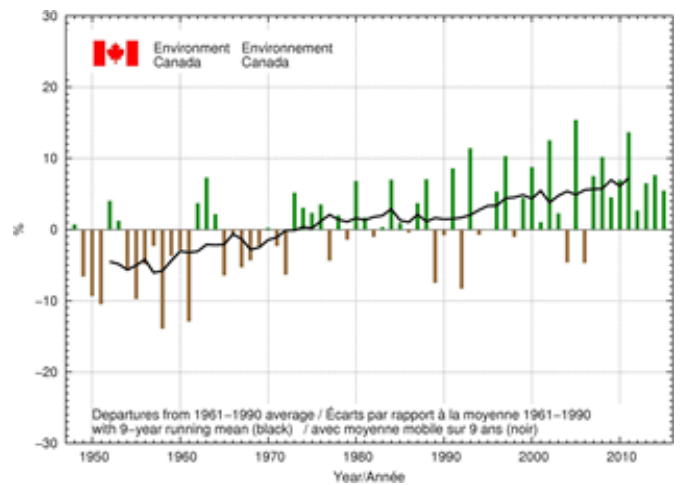
Precipitation Departures from the 1961–1990 Average – Summer 2015



It should be noted that “average” precipitation in northern Canada is generally much less than it is in southern Canada, and hence a percent departure in the north represents much less precipitation than the same percentage in the south. The national precipitation rankings are therefore often skewed by the northern departures and do not necessarily represent rankings for the volume of water falling on the country.

The precipitation percent departures graph (below) shows that, when averaged across the nation, summers have tended to be wetter than the 1961–1990 average since the mid-1970s.

Summer National Precipitation Departures with Nine-year Running Mean, 1948–2015



Regional Precipitation

Precipitation for the summer of 2015 was among the 10 wettest recorded since 1948 in 2 of the 11 climate regions: the Yukon/North B.C. Mountains (4th wettest at 30.5% above average) and the Mackenzie District (8th wettest at 23.4% above average). Summer precipitation in 2015 was not among the 10 driest recorded since 1948 in any of the 11 climate regions. A table listing the regional and national precipitation departures and rankings from 1948 to 2015 and a table that summarizes regional and national extremes are available on request to CTVB@ec.gc.ca.

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