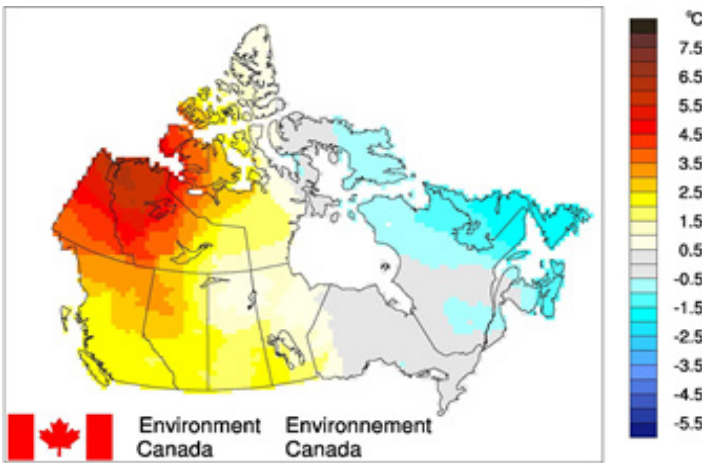
Climate Trends and Variations Bulletin – Spring 2015

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

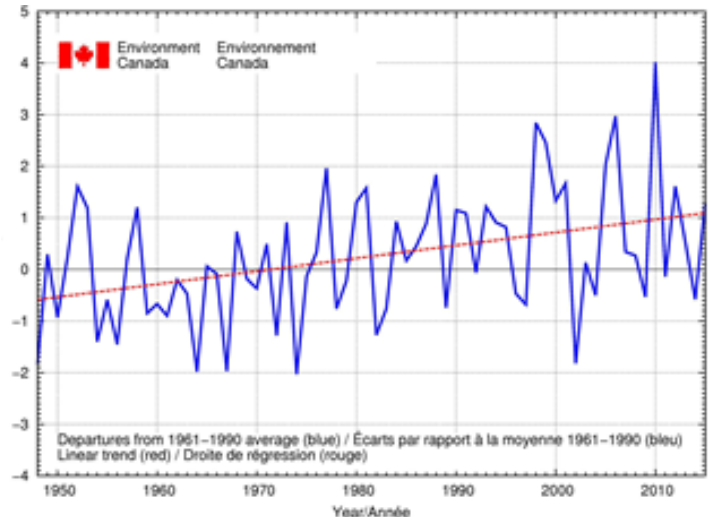
The national average temperature for the spring (March–May) of 2015 was 1.3°C above the baseline average (defined as the mean over the 1961–1990 reference period), based on preliminary data, which is the 14th warmest spring observed since nationwide recording began in 1948. The warmest spring occurred in 2010, when the national average temperature was 4.0°C above the baseline average. The coldest spring occurred in 1974, when the national average temperature was 2.0°C below the baseline average. The temperature departures map for spring 2015 (below) shows that British Columbia, Alberta, Saskatchewan, Manitoba, western Ontario, Yukon, Northwest Territories, and western Nunavut experienced temperatures above the baseline average. Below average temperatures were mainly recorded in northeastern Quebec, most of the Atlantic provinces and eastern Nunavut.

Temperature Departures from the 1961–1990 Average – Spring 2015



The time series graph (upper right) shows that, when averaged across the country, spring temperatures have fluctuated from year to year over the period 1948–2015. The linear trend indicates that spring temperatures averaged across the nation have warmed by 1.6°C over the past 68 years.

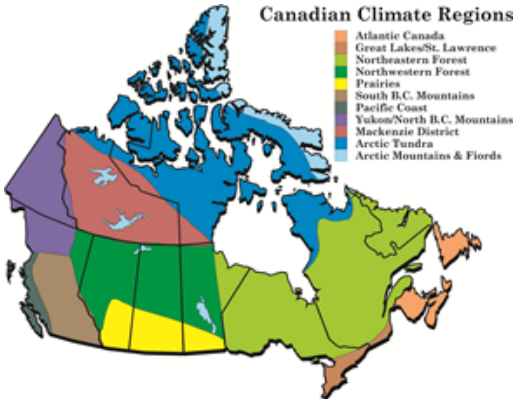
Spring National Temperature Departures and Long-term Trend, 1948–2015



Regional Temperature

When examined on a regional basis, average spring temperatures for 2015 were the warmest on record since 1948 for three of the eleven climate regions: the Yukon/North B.C. Mountains (4.1°C above average), the South B.C. Mountains (2.4°C above average), and the Pacific Coast (2.1°C above average). They were among the 10 warmest for two other climate regions: the Mackenzie District (3rd warmest at 3.4°C above average), and the Northwestern Forest (9th warmest at 1.8°C above average). Only the Atlantic Canada region experienced an average spring temperature for 2015 that ranked among the 10 coldest since 1948 (8th coldest at 1.2°C below average). All eleven climate regions exhibit positive trends in spring temperatures over the 68 years of record. The strongest trend is observed in the Mackenzie District region (2.5°C) while the weakest trend (0.9°C) is found in Atlantic Canada and the Arctic Mountains and Fjords 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.

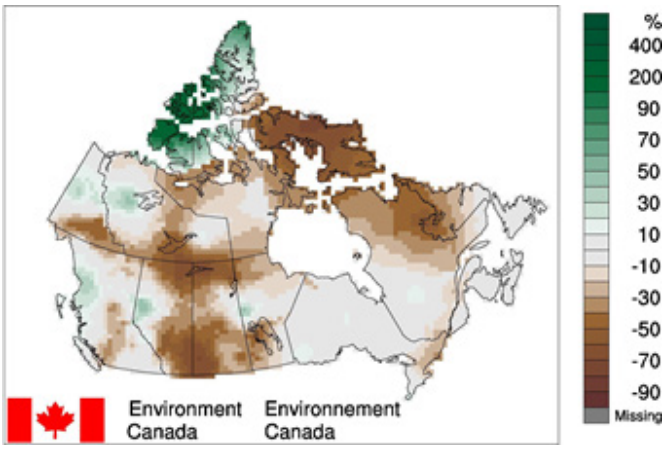
Canada



National Precipitation

The national average precipitation for the spring of 2015 was 11% below the baseline average, based on preliminary data, making it the 10th driest spring since nationwide recording began in 1948. The wettest spring was 1979 (20% above the baseline average) and the driest spring was 1956 (27% below the baseline average). The precipitation percent departure map for spring 2015 (below) shows conditions notably drier than average in most of the southern Yukon and Northwest Territories, Alberta, Saskatchewan, eastern Nunavut, and northern Quebec. Wetter than average conditions were mainly experienced in northwestern Nunavut.

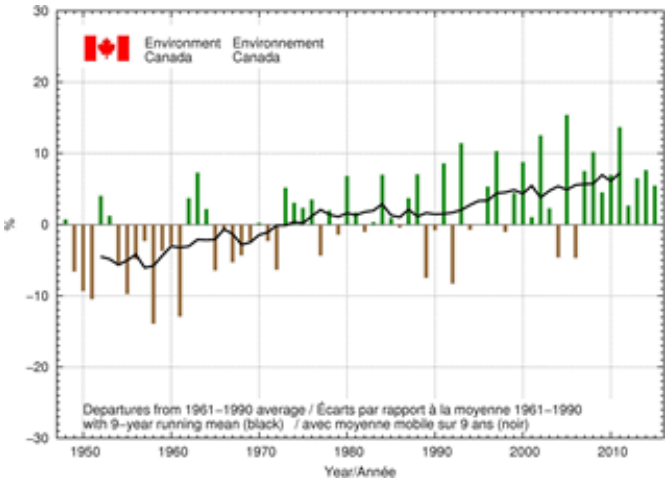
Precipitation Departures from the 1961–1990 Average – Spring 2015



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.

Although the preliminary data indicate that spring 2015 was drier than the 1961–1990 average, the precipitation percent departures graph (below) shows that, when averaged across the nation, springs have tended to be wetter than average since the mid-1970s.

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



Regional Precipitation

Precipitation for spring 2015 was among the 10 driest recorded since 1948 in two of the eleven climate regions: the Prairies (driest at 39% below average; tied with 1952), and the Northwestern Forest region (7th driest at 22% below average). Spring precipitation for 2015 was not among the 10 wettest recorded in any of the eleven 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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