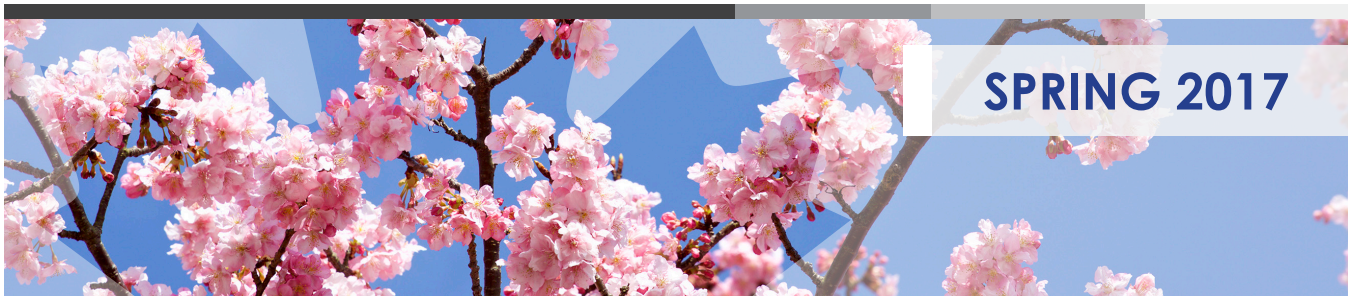
Environment and Climate Change Canada | Environnement et Changement climatique Canada



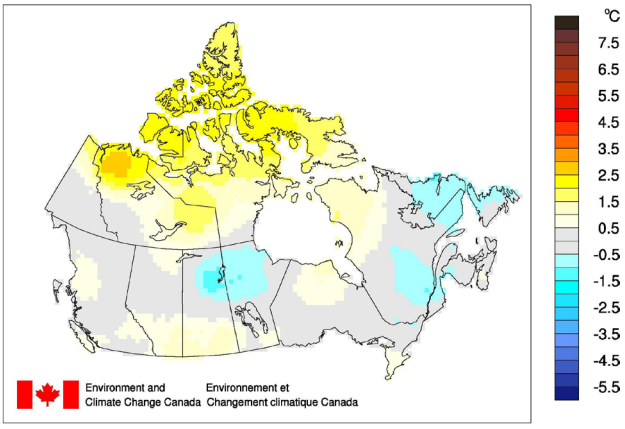
CLIMATE TRENDS AND VARIATIONS BULLETIN

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. Precipitation is examined in the same manner.

NATIONAL TEMPERATURE

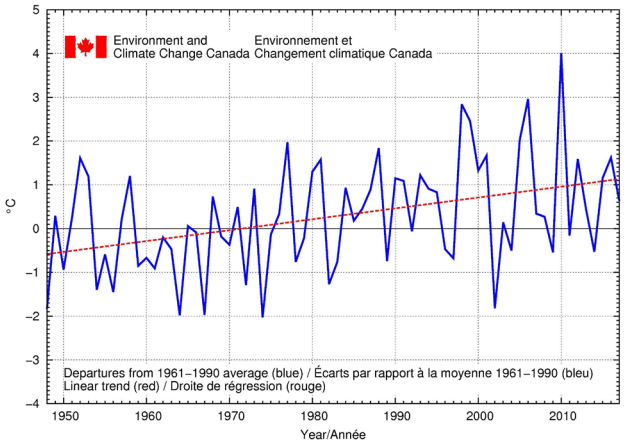
The national average temperature for the spring (March-May) 2017 was 0.6°C above the baseline average (defined as the mean over the 1961–1990 reference period), based on preliminary data, which is the 27th warmest observed since nationwide recording began in 1948. The warmest spring occurred in 2010, 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 (below) shows that most of the Northwest Territories and Nunavut experienced temperatures above the baseline average temperatures. Below average temperatures were recorded mainly in northern Saskatchewan, northern Manitoba, southeast Quebec, eastern Labrador and northern Newfoundland.

TEMPERATURE DEPARTURES FROM THE 1961–1990 AVERAGE – SPRING 2017



The time series graph (below) shows that averaged spring temperatures across the country have fluctuated from year to year over the 1948–2017 period. The linear trend indicates that spring temperatures averaged across the nation have warmed by 1.7°C over the past 70 years.

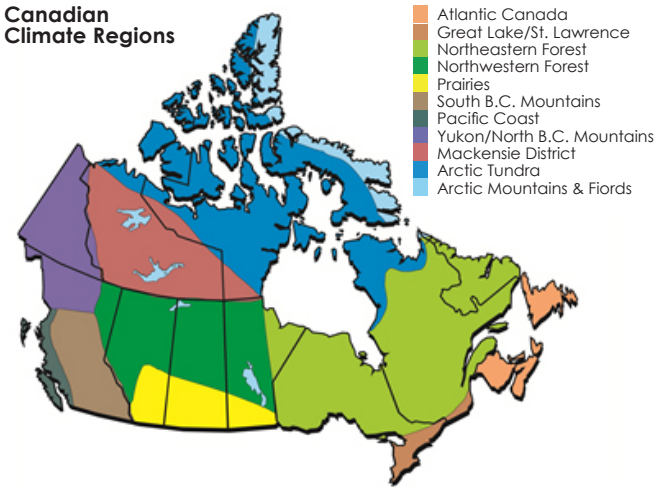
SPRING NATIONAL TEMPERATURE DEPARTURES AND LONG-TERM TREND, 1948–2017



REGIONAL TEMPERATURE

When examined on a regional basis, none of the 11 climate regions experienced an average spring temperature for 2017 that ranked among the 10 warmest or the 10 coldest on record since 1948. All 11 climate regions exhibit positive trends for spring temperatures over the 70 years of record. The strongest trend is observed in both the Yukon/ North B.C. Mountains and Mackenzie District regions (both regions at+2.6°C), while the weakest trend (+0.7°C) is found in the Atlantic Canada region. A table listing the regional and national temperature departures and rankings from 1948 to 2017 and a table that summaries regional and national trends and extremes summaries are available on request to ec.btvc-ctvb.ec@canada.ca.

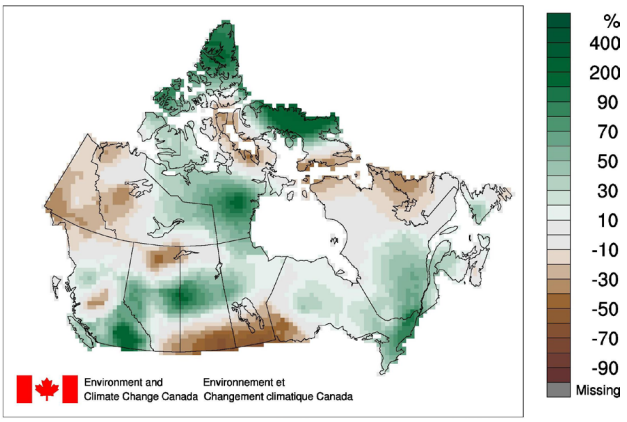
Canada



NATIONAL PRECIPITATION

The national average precipitation for the spring of 2017 was 19.2% above the baseline average (defined as the mean over the 1961-1990 reference period), based on preliminary data, making it the 3rd wettest spring since nationwide recording began in 1948. The wettest springs were 2012 and 1979 (with equal rankings of 20.4% above the baseline average) and the driest spring was 1956 (27% below the baseline average). The precipitation percent departure map for the spring of 2017 (below) shows that conditions were notably wetter-than-average in most of southern B.C., central Alberta, central Saskatchewan, southeast Ontario, southern Quebec, southern and northern Nunavut. The spring of 2017 was notably drier than average mainly in southern Saskatchewan, southern Manitoba, the Yukon, western Northwest Territories and northern Quebec.

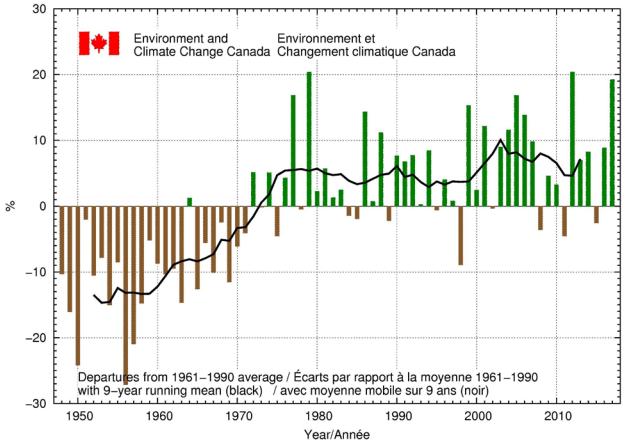
PRECIPITATION DEPARTURES FROM THE 1961-1990 AVERAGE – SPRING 2017



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, spring precipitation amounts have tended to be wetter than the 1961–1990 average since the beginning of the 1970s.

SPRING NATIONAL PRECIPITATION DEPARTURES WITH NINE-YEAR RUNNING MEAN, 1948–2017



REGIONAL PRECIPITATION

Spring precipitation for 2017 was among the 10 wettest recorded since 1948 in 7 of the 11 climate regions: the Great Lakes/St. Lawrence region (wettest at 59.4% above average); the South B.C. Mountains (wettest at 41.1% above average); the Arctic Mountains and Fjords (wettest at 86.8% above average); the Northwestern Forest (7th wettest at 22.9% above average); the Arctic Tundra (9th wettest at 26.1% above average); the Northeastern Forest (10th wettest at 12.8% above average); and the Pacific Coast (10th wettest at 23.8% above average). None of the 11 climate regions experienced an average spring precipitation for 2017 that ranked among the 10 driest on record since 1948. A table listing the regional and national precipitation departures and rankings from 1948 to 2017 and a table that summarizes regional and national extremes are available on request to ec.btvc-ctvb.ec@canada.ca.

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