

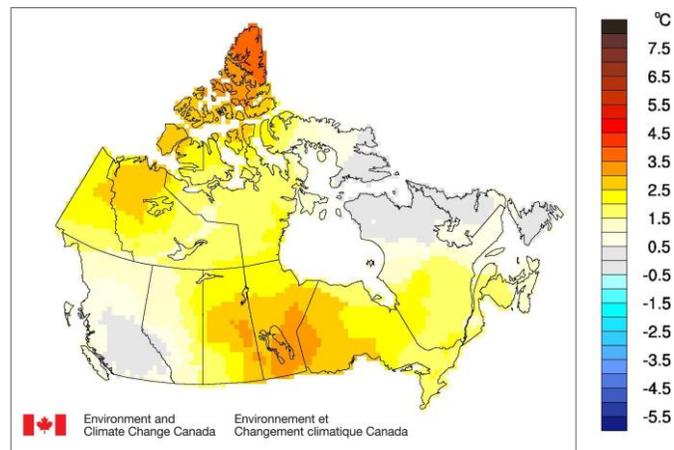


Climate Trends and Variations Bulletin – Autumn 2015

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

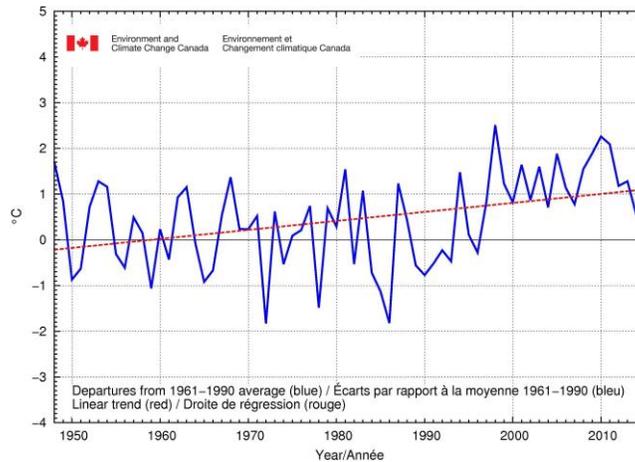
The national average temperature for the autumn (September, October and November) of 2015 was 1.7°C above the baseline average (defined as the mean over the 1961–1990 reference period), based on preliminary data, which is the sixth-warmest observed since nationwide recording began in 1948. The warmest autumn occurred in 1998, when the national average temperature was 2.5°C above the baseline average. The coldest autumn occurred in 1972, when the national average temperature was 1.8°C below the baseline average. The temperature departures map for autumn 2015 (below) shows that all of the country experienced temperatures at or above the baseline average. The warmest places were in the Arctic Archipelago, eastern Saskatchewan, most of Manitoba, and northwestern Ontario. Temperatures were near the baseline average in southern British Columbia, northern Quebec, and Newfoundland and Labrador.



Temperature Departures from the 1961–1990 Average – Autumn 2015

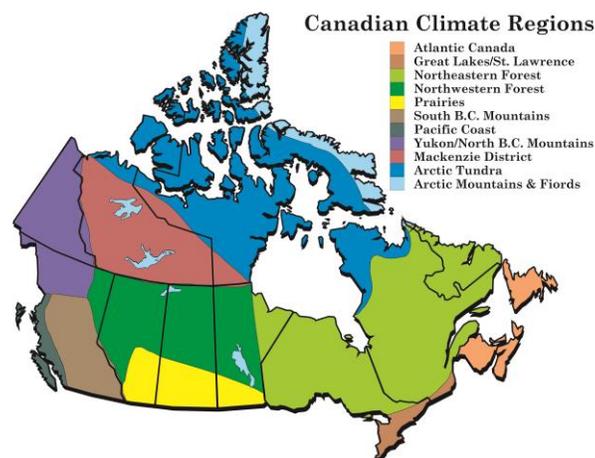
The time series graph (below) shows that, when averaged across the country, autumn temperatures have fluctuated from year to year over the period 1948–2015. The linear trend indicates that autumn temperatures averaged across the nation have warmed by 1.6°C over the past 68 years.

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



Regional Temperature

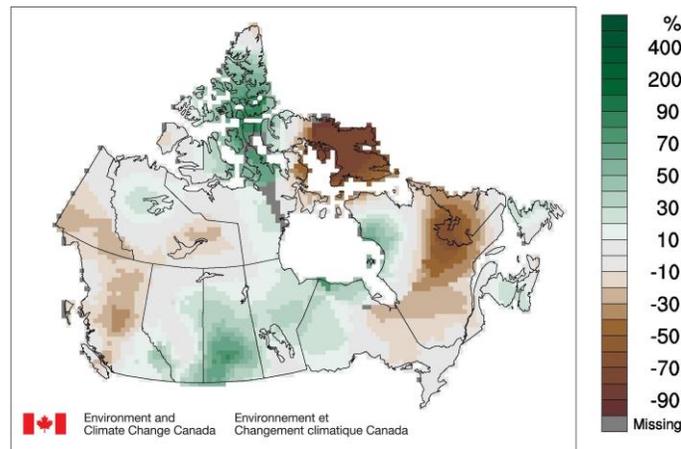
When examined on a regional basis, average autumn temperatures for 2015 were among the 10 warmest on record since 1948 for 4 of the 11 climate regions: the Great Lakes/St. Lawrence region (third-warmest at 1.8°C above average), the Prairies (sixth-warmest at 2.2°C above average), the Northwestern Forest (seventh-warmest at 2.1°C above average), and the Northeastern Forest (eighth-warmest at 1.7°C above average). None of the 11 climate regions experienced an average autumn temperature for 2015 that ranked among the 10 coldest since 1948. All 11 climate regions exhibit positive trends in autumn temperatures over the 68 years of record. The strongest trends are observed in the Arctic Tundra region (2.3°C) and the Arctic Mountains and Fjords (2.3°C), while the weakest trend (0.5°C) is found in the South British Columbia Mountains 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 ec.btv-ctvb.ec@canada.ca.



National Precipitation

The national average precipitation for the autumn of 2015 was 3% above the baseline average, based on preliminary data, making it the 26th-wettest autumn since nationwide recording began in 1948. The wettest autumn was 2010 (14.5% above the baseline average), and the driest autumn was 1952 (23.3% below the baseline average). The precipitation percent departure map for the autumn of 2015 (below) shows conditions were notably wetter in Saskatchewan and northern Nunavut. Drier-than-average conditions were experienced throughout much of Quebec, Labrador, southern Yukon, central British Columbia, and on Baffin Island. Precipitation near the baseline average was found in the rest of the country.

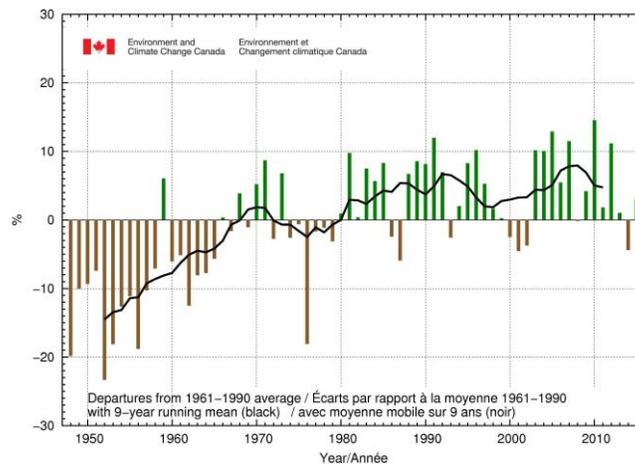
Precipitation Departures from the 1961–1990 Average – Autumn 2015



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, autumns have tended to be wetter than the 1961–1990 average since the beginning of the 1980s.

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



Regional Precipitation

Precipitation for the autumn of 2015 was among the 10 wettest recorded since 1948 in 2 of the 11 climate regions: the Prairies (eighth-wettest at 33.4% above average) and the Northwestern Forest (ninth-wettest at 15.2% above average). Autumn precipitation in 2015 was among the 10 driest recorded since 1948 for 1 of the 11 climate regions: Arctic Mountains and Fjords (seventh-driest at 23% below average). 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 ec.btv-cctvb.ec@canada.ca.

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