



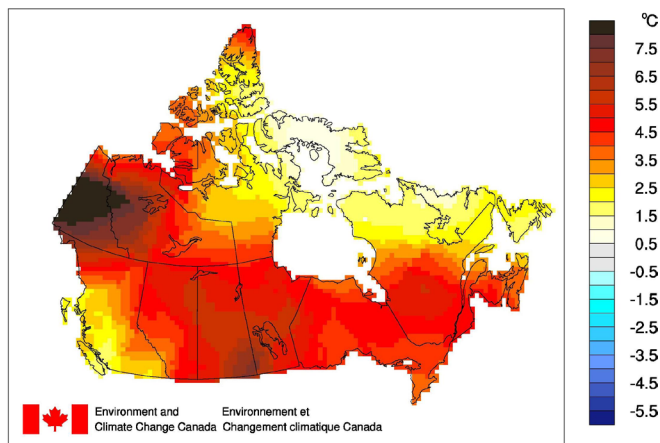
## Climate Trends and Variations Bulletin – Winter 2015/2016

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

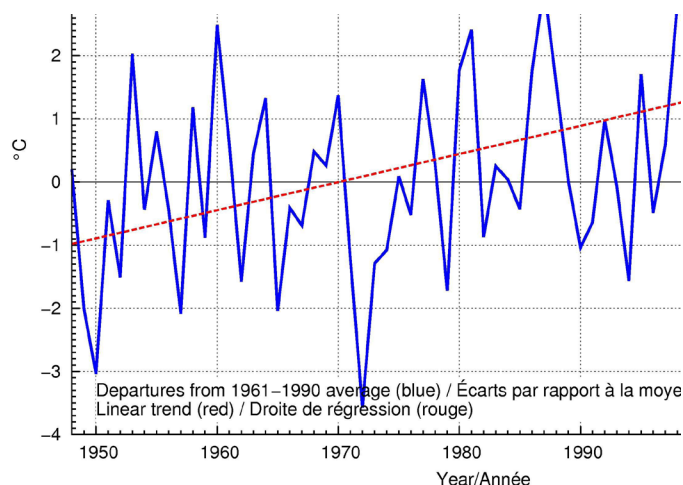
The national average temperature for the winter of 2015/2016 (December 2015, January 2016, and February 2016) was 4.0°C above the baseline average (defined as the mean over the 1961–1990 reference period), based on preliminary data, which is the second-warmest observed since nationwide recording began in 1948. The only warmer winter occurred in 2009/2010, when the national average temperature was 4.1°C above the baseline average. The coldest winter occurred in 1972, when the national average temperature was 3.6°C below the baseline average. The temperature departures map (below) shows that all of Canada experienced at or above the baseline average temperatures for the winter of 2015/2016. The greatest temperature departures were recorded in the Yukon and western Northwest Territories. Although still above baseline average, the smallest temperature departures were recorded over Baffin Island in western Nunavut.

### Temperature Departures from the 1961–1990 Average – Winter 2015/2016



The time series graph (below) shows that, when averaged across the country, winter temperatures have fluctuated from year to year over the period 1948–2016. The linear trend indicates that winter temperatures averaged across the nation have warmed by 3.3°C over the past 69 years.

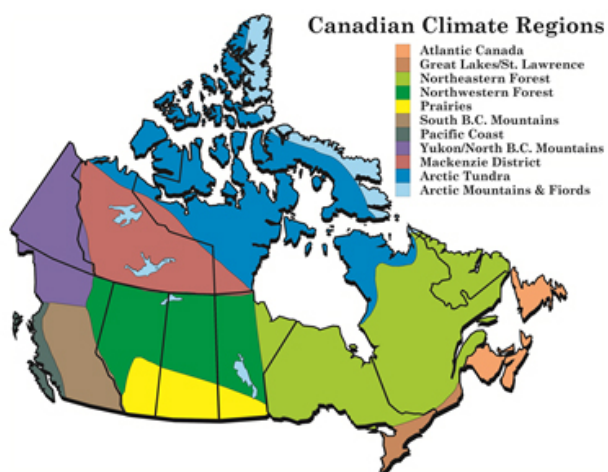
### Winter National Temperature Departures and Long-term Trend, 1948–2016



### Regional Temperature

When examined on a regional basis, average winter temperatures for 2015/2016 were among the 10 warmest on record since 1948 for 10 of the 11 climate regions, with 1 region experiencing its warmest winter on record. The 10 regions are: North B.C. Mountains/Yukon (warmest on record at 6.8°C above average); Great Lakes/St. Lawrence (second-warmest at 4.2°C above average); Prairies (third-warmest at 5.5°C above average); Northeastern Forest (third-warmest at 3.9°C above average); Atlantic Canada (third-warmest at 3.1°C above average); Pacific Coast (third-warmest at 2.3°C above average);

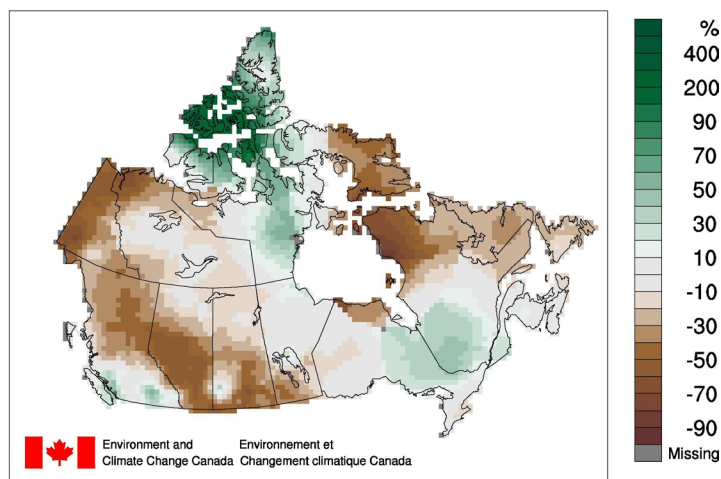
Northwestern Forest (fourth-warmest at 5.1°C above average); Mackenzie District (fourth-warmest at 5.1°C above average); South B.C. Mountains (fourth-warmest at 3.1°C above average); and Arctic Tundra (ninth-warmest at 2.6°C above average). None of the 11 climate regions experienced an average winter temperature for 2015/2016 that ranked among the 10 coldest since 1948. All 11 climate regions exhibit positive trends for winter temperatures over the 69 years of record. The strongest trend is observed in the North British Columbia Mountains/ Yukon region (+5.7°C), while the weakest trend (+0.5°C) is found in the Atlantic Canada region. A table listing the regional and national temperature departures and rankings from 1948 to 2016 and a table that summarizes regional and national trends and extremes are available on request to [ec.btv-ctvb.ec@canada.ca](mailto:ec.btv-ctvb.ec@canada.ca).



## National Precipitation

The national average precipitation for the winter of 2015/2016 was 5.1% below the baseline average, based on preliminary data, making it the 18th driest winter since nationwide recording began in 1948. The wettest winter was 2010/2011 (28.2% above the baseline average) and the driest winter was 1956/1957 (20.2% below the baseline average). The precipitation percent departure map for the winter of 2015/2016 (next column) shows that conditions were drier-than-average from the prairies westward through the northern half of B.C. and into the Yukon and Northwest Territories. Northern Quebec, Newfoundland and Labrador and eastern Baffin Island were also drier than average. The winter of 2015/2016 was wetter than average over the Arctic Archipelago and Central Ontario and Quebec.

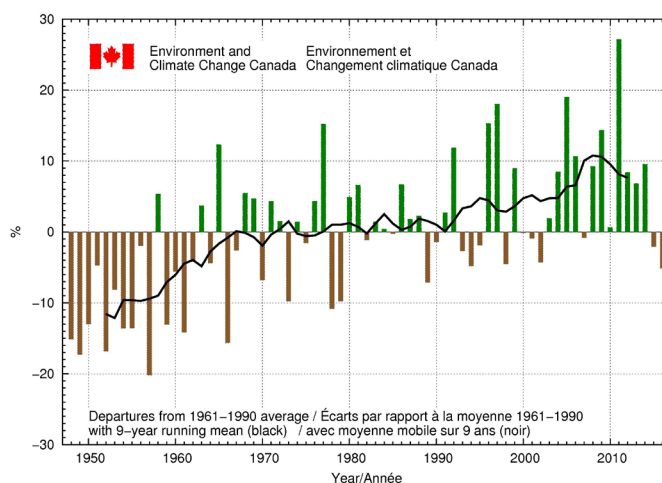
## Precipitation Departures from the 1961-1990 Average – Winter 2015/2016



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

## Winter National Precipitation Departures with Nine-year Running Mean, 1948–2016



## **Regional Precipitation**

Winter precipitation for 2015/2016 was among the 10 driest recorded since 1948 in 3 of the 11 climate regions: the Prairies (second-driest at 36.3% below average); North British Columbia/Yukon (third-driest at 38.1% below average); and Northwestern Forest (eighth-driest at 19.2% below average)

There were no regions in the winter of 2015/2016 that ranked among the 10 wettest recorded since 1948. 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-ctvb.ec@canada.ca](mailto:ec.btv-ctvb.ec@canada.ca).

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