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THE NATIONAL ATLAS OF CANADA 5th EDITION

CANADA

SNOWFALL

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Des exemplaires de cette carte sont disponibles en français. Précisez MCR 4126F.

Lambert Conformal Conic Projection, Standard Parallels 49°N and 77°N. Modified Polyconic Projection, North of Latitude 80°.

SNOWFALL

Information portrayed on the mean annual snowfall map is based on the ***climate recording period*** of 1951 to 1980. Snow depth and snow cover loss and formation information is derived from 1955-1980 recordings. ***Snowfall*** is recorded as the depth of newly fallen snow. It is measured with a standard snow ruler to the nearest 0.2 centimetre.

Annual snowfall values are annual totals of the daily amounts that have been averaged over the period of record for each month. The statistical measure used to determine ***snowfall probabilities*** is based on the standard deviation. This probability measure is used to make precise statements about the frequency of snowfall events and the likelihood of future occurrences. There is an 80% probability that the annual snowfall amount for any one locality will lie between the maximum and minimum values indicated on this map. There is a 10% probability that it will be above the higher limit indicated and a corresponding 10% probability that it will be below the lower limit indicated. Assuming normal distributions, the upper and lower limits correspond to $\pm$1.28 standard deviations from the mean annual snowfall.

Median snow depth is central snow depth value of a ranked series of amounts measured over the period of record for a specific location. Of the few dates chosen for portrayal, November 15 was selected as representative of the beginning of winter, December 31 and February 15 as mid-winter and March 31 as the end of winter.

The ***median date of snow cover formation*** is defined as the median date at which an initial cover of at least 2.5 centimetres of snow remains on the ground for at least seven days; the ***median date of snow cover loss*** is defined as the median date at the beginnig of the first 7-day period with less than 2.5 centimetres of snow cover in spring.

Maximum snow depth is the mean value of the maximum winter snow depth measured each year over the recording period.

Because of constraints on isarithmic interpolation imposed by the uneven and often sparse distribution of climatological stations, the density of the station network can be used as an index of ***isoline reliability.*** Isolines are most representative in areas of uniform flat terrain. Significant local deviations from the pattern indicated should be expected as terrain irregularity increases. Abrupt changes in climatic characteristics occur in mountainous regions in response to significant variations in elevation, aspect and slope over short distances. In areas of mountainous terrain, isolines are representative of valley conditions only. Line symbols used over water bodies indicate approximate values.

Sources

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Mean Annual Snowfall
Probable Maximum Snowfall (cm)
10% Probability of a greater amount
0 100 200 400 800 1200
Probable Minimum Snowfall (cm)
10% Probability of a lesser amount
200 200
Climatological Station

Scale 1:12 500 000

Median Snow Depth — November 15

Scale 1:25 000 000

Median Snow Depth — December 31

Scale 1:25 000 000

0 10 30 50 100 cm
Climatological Station

Snow Cover
Median Date of Snow Cover Loss
Jan. 1 Feb. 1 March 1 April 1 May 1 June 1 July 1
Median Date of Snow Cover Formation
Sept. 15 Sept. 15
No persistent snow in 50% or more winters
Climatological Station

Scale 1:25 000 000

Median Snow Depth — February 15

Scale 1:25 000 000

Median Snow Depth — March 31

Scale 1:25 000 000

Maximum Snow Depth
Maximum Snow Depth (cm)
0 30 50 100 200 300
Median Date of Ocurrence of Maximum Snow Depth
Jan. 15 Jan. 15
Climatological Station

Scale 1:25 000 000

Canada