

Montana's Climate

THE COCORAHS 'STATE CLIMATES' SERIES

Montana – Big Sky Country and the Last, Best Place

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Montana is a pretty big State (4th largest), without a lot of people (48th in population density). Our climate is very complex due to highly variable topography. The northern Rocky Mountains and the Continental Divide allow the western 1/3 of the State to receive a modified northern Pacific coast climate – clouds, humidity and precipitation. The eastern 2/3 of the State lies on the northern Great Plains and the climate is semi-arid and continental.

Given that Montana is pretty big and there aren't a lot of people here, we don't make that many weather measurements. Nevertheless, we still end up with a number of "Top 10's", though some of them aren't really things to crow about. While western Montana gets a lot of influence from the Pacific Ocean, the eastern side of the State more than makes up for it, producing the 6th driest State overall. The "northern" part of the topography description results in the 6th coldest State overall as well.

The Rocky Mountains really do play an important role in our climate. The coldest temperature ever recorded in the lower 48 States was on Rogers Pass (5,610' elevation). The 6th cloudiest city in the US is Kalispell, west of the divide. The 7th windiest city in the US is Great Falls – which also boasts the 4th cleanest air. Related to the winds, the mountains also produce tremendous temperature fluctuations – usually during events called "Chinooks". The fastest 7-minute (34 degrees), 15-minute (42 degrees), and 24 hour (103 degrees! -54°F to + 49°F!) warm-ups ever recorded in the US happened along the Rocky Mountain front in eastern Montana. But things can change just as much the other direction, too. The greatest 24-hour chill ever recorded in the US was along the front at Browning (100°F! 44°F to -54°F!). Rapid changes this big are unusual, but smaller changes happen all the time. Change is so common that Montanans tell visitors that if they are bored with the weather, just wait 5 to 10 minutes and things will be different.

For more information on Montana's Climate please visit the Montana Climate Office website at: <http://www.cfc.umt.edu/mco/>