

Oklahoma's Climate

THE COCORAHS 'STATE CLIMATES' SERIES

Where the Wind Comes Sweeping Down the Plain

"If you don't like the weather in Oklahoma, wait a minute and it'll change." — Will Rogers

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Oklahoma is ideally situated in the middle latitudes between the Rocky Mountains and the Gulf of Mexico to experience its share of exciting weather. As our state slopes downward from the far western Panhandle (>4,000 feet in elevation) to the southeast corner (<300 feet), there are substantial differences in precipitation, temperature, and severe weather. Eastern portions of the state average up to 56" of precipitation annually, while parts of the Panhandle receive less than 17", on average. Precipitation peaks during the spring across Oklahoma except for the Panhandle, which has a summertime maximum. A secondary peak occurs during early autumn, and is especially pronounced in eastern Oklahoma. The annual number of days when measurable precipitation is recorded range from about 45 days in western Oklahoma to about 115 days near our eastern border. The state records for annual precipitation are 84.47", measured in southeastern Oklahoma in 1957, and a meager 6.53", recorded in the Panhandle the previous year. Our highest single-day rainfall is 15.68", but unofficial totals of over 20" have been documented.

Average temperature decreases across Oklahoma generally from the south to the northwest. Mean annual temperature ranges from about 62 degrees F along Oklahoma's southern border to a state low of 56 degrees F in the far west Panhandle. But Oklahomans know that temperatures are rarely average in their state; almost everywhere has an annual temperature range of 100 degrees or more. For any place in the state, temperatures near 110 degrees F are common about two out of ten years, as are temperatures slightly below zero. State extreme temperatures range from 120 degrees (recorded six times) to 27 degrees below zero (twice). Most of the state has a growing season of more than 200 days, except in the western Panhandle where the growing season lasts only about 175 days.

Snowfall is frequent across northwestern Oklahoma, averaging nearly 30 inches of snow each year; but areas of southeastern Oklahoma may go several years between snowfalls. The state's record annual snowfall is 87.3" (at Beaver during the winter of 1911-1912). Buffalo holds the state's single-storm snowfall total of 36" in February 1971. A more common threat to the state is ice. Eight major ice storms struck Oklahoma between 2000 and 2010.

In addition to ice storms, the primary threats to safety and to the economy in Oklahoma are severe storms, floods, and droughts. While rare, large and damaging tornadoes are a threat in almost any part of Oklahoma. Fortunately, recent advances in technology and preparedness have reduced the loss of life. Oklahoma averages 54 tornadoes per year, 15 of them rating F2 (EF2) or higher. Most tornadoes occur between late March and mid-June, although tornado outbreaks are sometimes associated with the secondary precipitation maximum in autumn. Much of Oklahoma's precipitation comes in the form of intense, but short-lived, thunderstorms, causing excessive runoff and flash flooding, especially in urban and suburban areas. While not a threat to life, drought can be a frequent nuisance, especially across the agricultural-intensive areas of the west. Droughts may last from several months to several years. Major drought episodes occurred from 1909-1918, 1930-1940, 1952-1958, and 1962-1972.

More information about Oklahoma's climate can be found at the Oklahoma Climatological Survey (<http://climate.ok.gov>). Monitor Oklahoma's weather at <http://www.mesonet.org>.