

Monthly Climatology Series
By Howard L. Johnson
Associate State Climatologist for Service
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Monthly Climate of Oklahoma – February
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February is the warmest of the Oklahoma's three winter months, a product of the combination of gradually lengthening days - often heralding an illusory approach of spring - and the very real existence of the continuing winter. Recorded temperatures in Oklahoma during the second month of the year traverse a range of 126 degrees Fahrenheit, from 99 degrees at Arapaho on February 24, 1918 to -27 degrees at Vinita on February 13, 1905. The latter thermometer reading is tied as the state's all-time lowest temperature. Oklahoma's normal monthly temperature, based on data obtained from 1971 through 2000, is 42.3 degrees. Monthly values of normal daily maximum temperatures across the state range between 60.3 degrees along the Red River at Waurika and 49.5 degrees at Newkirk near the state's northern border. Normal daily minimum temperatures vary between 34.4 degrees at Waurika and 22.0 degrees in the Panhandle at Beaver. The monthly mean temperatures for February, compiled as a statewide average since 1892, have varied between a high of 51.8 degrees in 1954 and a low of 27.9 degrees in 1899.

Of all the other months, only January has a normal precipitation lower, when averaged statewide, than February's 1.77 inches. Southeastern Oklahoma's Idabel possesses the state's greatest precipitation normal during February at 3.60 inches. Kenton, in the shadow of Black Mesa, gains distinction as the state's driest reporting station during February with a normal total of 0.33 inch. The February statewide-averaged precipitation varies substantially, being bounded by a low of 0.20 inch attained both in 1947 and 1996 and a high of, 4.66 inches in 1938. In contrast to the many stations that have suffered through February precipitation voids, Tuskahoma was treated to an excessive 13.21 inches during February 1945. Snow is an important part of the precipitation picture in northwestern Oklahoma. Helena and Woodward both average about 4.7 inches of snow during February, compared to less than one-half inch at stations in southeastern Oklahoma.

Oklahoma's extreme snowstorm of record was the blizzard of February 21-23, 1971. This blizzard buried northwestern Oklahoma under as much as three feet of snow, not accounting for drifts. Buffalo was the hardest hit, reporting 23 inches of snow on the 21st and a state-record snow depth of 36 inches by the morning of the 24th. The snow was driven by winds 30 to 50 miles per hour, producing drifts as high as 20 feet. Military cargo planes were used to airdrop hay to cattle stranded in the far-flung pastures of the region. Losses to agriculture were estimated at \$2.1 million (1971 dollars). Lost livestock included approximately 11,000 cattle, 3,500 hogs, and 1,000 sheep. Buffalo reported a total of 39.5 inches of snow during the month (a state record for all months). Fort Supply

and Woodward each also received more than 30 inches of snow during February 1976. Two to five inches of snow were reported along a line extending from Hollis to Miami. This line represented the approximate southeastern extent of this devastating storm.

Two extreme cold events prior to statehood tested the mettle of the residents of the territory. Temperatures on the morning of February 12, 1899 ranged from -11 to -25 degrees across the territory. At that time no data existed from the Choctaw Nation, but the farthest southeast reporting station, Kemp (Chickasaw Nation, now in Bryan County), reported a temperature of -14 degrees. Beaver was the coldest spot in the episode, which occurred in the absence of any snow cover. Summaries from the time indicate that the ground remained frozen for most of the month. The second territorial event, on February 13, 1905, saw the air over a blanket of snow cool to -27 degrees at Vinita and -25 degrees at White Eagle (near Ponca City). Jefferson, Newkirk, and Enid all reported temperatures of -20 degrees or less.

Flooding was prominent across eastern and south-central Oklahoma during February 1938. Calvin recorded a monthly precipitation of 11 inches, and Eufaula, McAlester, and Webbers Falls all recorded more than 10 inches of precipitation during the month. Flooding on the "minor streams," as the Weather Bureau summary for the month termed it, killed hundreds of cattle and washed away numerous homes. Losses were placed at \$750,000 (at 1938 prices) and much valuable topsoil was washed away. A similar situation occurred in 1945, when heavy precipitation across southeastern Oklahoma from the 20th through the 26th led to flooding as part of a storm system that produced much snow, ice, and rain.

Dry weather also has had an impact during February. The severe dust storms of 1935 first appeared during February. A windstorm that entered the western Panhandle early on the morning of February 19, 1954 carried winds estimated between 60 and 85 miles per hour into southwestern Oklahoma by afternoon. According to a contemporary summary prepared by the Oklahoma City office of the Weather Bureau, published in that month's issue of "Climatological Data," buildings were damaged, telephone and electrical service was interrupted, and one person was killed by a fallen power line. The accompanying dust storm reduced visibility to near zero in many places. According to the report, written by the Weather Bureau's section director, the state had not experienced a worse dust storm since 1939. Also, it was during February of the extremely dry winter of 1995-96 that a series of very dangerous and costly grass and forest fires forcibly awoke the state to the presence of a significant drought.

Tornadoes are not generally considered a February phenomenon, but a total of 44 February tornadoes have been recorded across the state since 1950, including six in 1975. Three people were killed on February 22, 1975, bringing the confirmed total of February tornado deaths in the state to nine, according to storm-by-storm death tolls compiled by Thomas P. Grazulis and published in the book "Significant Tornadoes: 1880-1989."

Howard L. Johnson

Media Contact:

Cerry Leffler
Oklahoma Climatological Survey
100 E. Boyd, Suite 1210
Norman, OK 73019-1012
405-325-2541
405-325-2550 (fax)
cerry@ou.edu

For Additional Information:

Howard Johnson
Associate State Climatologist for Service
100 E. Boyd, Suite 1210
Norman, OK 73019-1012
405-325-2541
405-325-2550 (fax)
hjohnson@ou.edu