# Oklahoma Monthly Climate Summary



The weather was a bit confused in Oklahoma during January. The first half of the month was on the warm and wet side of normal, while the second half was dominated by short, intense periods of dry winter's chill. The state received an average of 1.86 inches of precipitation from January 1-12, but only 0.31 inches throughout the rest of the month - the 5th wettest and 25th driest such periods on record, respectively. The month's biggest thrill came in the form of a winter storm on January 3, with freezing rain, sleet and snow falling across much of the state. Preliminary reports had Blanchard leading the official snowfall totals with 5.5 inches, although unofficial reports of up to 6.5 inches came in from the eastern side of Moore. Oklahoma City recorded 4.5 inches, their 18th largest single-day January snow total since records began in 1893. The final bit of excitement was the frigid weather to end the month. A large area of arctic air settled over the Upper Midwest and Northern Plains during the final week

<b>January</b>	2019 \$	Statewide	Extremes
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Description	Extreme	Station	Day
High Temperature	78°F	Slapout	6
Low Temperature	-2°F	Eva	2
High Precipitation	5.41 in.	Tahlequah	
Low Precipitation	0.32 in.	Hooker	

of January, breaking many longtime cold temperature records. Low temperatures in Minnesota and North Dakota approached minus 60 degrees, with similar wind chills across a larger range. Oklahoma received the extreme southwestern edge of that air mass – a glancing blow. Wind chills dropped below zero in a few spots, and single digits over a larger area.

According to preliminary data from the Oklahoma Mesonet, the statewide average precipitation total was 2.17 inches, 0.61 inches above normal to rank as the 23rd wettest January since records began in 1895. Northeastern Oklahoma was unusually wet at 2.15 inches above normal, the seventh wettest January for that region. All Mesonet sites in the western quarter saw less than an inch of liquid precipitation, while areas east of Interstate 35 received 2-4 inches. A few Mesonet sites in the far northeast recorded more than 5 inches. Totals ranged from 5.41 inches at Tahlequah to 0.32 inches at Hooker. Far southwestern Oklahoma had deficits of nearly a half-inch, about 50 percent of normal for January. The first two months of climatological winter, which runs from December-February, ended with a statewide average of 5.71 inches, 2.11 inches above normal and the 11th wettest December-January on record. Burns Flat led the state in snowfall for the season through January with 8 inches, and Erick, Forgan and Shattuck had each reported more than 7 inches. The official observing site at Oklahoma City had recorded 5.5 inches.

The January statewide average temperature was 38 degrees, 0.3 degrees above normal to rank as the 52nd warmest on record. Temperatures ranged from 78 degrees at Slapout on January 6 to minus 2 degrees at Eva on the second. The first two days of 2019 were quite frigid in the Panhandle. Eva's wind chill on the first and second of the month was minus 14 and minus 17 degrees, respectively. Boise City and Kenton

remperature												
	Average	Depart.	Rank (1895-2019)									
Month (January)	38.0°F	0.3°F	52nd Warmest									
Season-to-Date (Dec-Jan)	39.2°F	0.9°F	43rd Warmest									
	Prec	ipitation										
	Total	Depart.	Rank (1895-2019)									

**January 2019 Statewide Statistics** 

	Total	Depart.	Rank (1895-2019)
Month (January)	2.17 in.	0.61 in.	23rd Wettest
Season-to-Date (Dec-Jan)	5.71 in.	2.09 in.	11th Wettest

Depart. = departure from 30-year normal

had wind chills of minus 10 degrees. The first two months of winter finished with a statewide average of 39.2 degrees, 0.9 degrees above normal to rank as the 43rd warmest such period on record.

Oklahoma managed to make it three consecutive weeks with no drought or abnormally dry conditions depicted on the U.S. Drought Monitor map, from January 8-29. The month's final map had about 1 percent of the state in abnormally dry conditions. The area was centered on Harmon County in the far southwest where those moisture deficits continued to accumulate. The February outlooks from the Climate Prediction Center (CPC) showed slightly increased odds of below normal temperatures across the northwestern twothirds of the state, and above normal precipitation for all but the far western Panhandle. The odds were a bit higher across eastern Oklahoma. CPC's Monthly Drought Outlook does not see drought development anywhere in the state through the end of February.



#### **JANUARY 2019 OBSERVED PRECIPITATION**

#### **JANUARY 2019 DEPARTURE FROM NORMAL PRECIPITATION**



#### **JANUARY 2019 PERCENT OF NORMAL PRECIPITATION**



#### **JANUARY 2019 AVERAGE TEMPERATURE**



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### **JANUARY 2019 DEPARTURE FROM NORMAL TEMPERATURE**



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## **MESONET MONTHLY SUMMARY FOR JANUARY 2019**

NAME	MEAN TEMP	HIGH TEMP	DAY	LOW TEMP	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY	NAME	MEAN TEMP	HIGH TEMP	DAY	LOW TEMP	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY
PANHANDLE Arnett Beaver Boise City Buffalo Eva	37.3 35.6 36.2 36.3 33.3	67 74 67 72 70	6 6 21 6 21	12 8 7 12 -2	29 29 2 30 2	860 911 894 890 982	0 0 0 0	.87 .65 .51 .66 .57	.58 .38 .23 .47 .30	4 11 11 11 11	Goodwell Hooker Kenton Slapout	35.4 34.9 36.3 37.0	72 70 71 78	21 21 21 6	4 7 5 10	2 2 2 2	919 934 890 868	0 0 0 0	.80 .32 .40 .58	.28 .22 .18 .41	11 11 18 11
NORTH CENTRAL Alva Blackwell Breckinridge Cherokee Fairview Freedom Lahoma	36.3 35.4 36.6 36.8 37.8 36.3 36.3	68 63 67 67 70 64	5 6 7 5 5 7	14 13 15 17 16 11 15	30 30 30 30 30 30 30	890 918 881 874 844 890 879	0 0 0 0 0 0	.82 2.30 1.85 .99 1.09 .62 1.41	.45 1.25 .99 .58 .35 .51 .64	11 11 11 11 11 11 11	May Ranch Medford Newkirk Red Rock Seiling Woodward	36.1 35.6 34.3 36.7 36.7 37.8	69 63 66 67 72	5 7 5 5 6	11 15 9 13 12 13	30 30 25 29 30	895 910 953 877 876 844	0 0 0 0 0	.86 1.32 2.28 2.61 .85 .58	.63 .77 1.24 1.23 .34 .31	11 11 11 11 4 11
NORTHEAST Bixby Burbank Copan Foraker Inola Jay Miami Nowata	37.7 35.6 35.0 34.7 36.4 36.2 35.3 34.9	70 66 68 69 69 69 68	7 6 7 7 7 7 7 7	16 10 10 14 8 11 9	25 25 25 25 25 25 25 25	847 912 931 938 888 892 920 932	0 0 0 0 0 0 0	4.28 3.07 3.33 2.60 5.03 5.12 4.35 3.52	1.70 1.34 1.26 1.77 1.63 1.94 1.38	3 11 11 11 3 11 11 11	Pawnee Porter Pryor Skiatook Talala Tulsa Vinita Wynona	36.8 37.6 36.0 36.7 35.8 37.8 35.0 36.2	66 70 68 68 68 68 68 68	7 7 7 7 7 7 7 7	13 15 13 13 11 16 7 12	25 25 20 25 25 25 25 25	875 850 900 877 906 843 930 892	0 0 0 0 0 0 0	2.62 4.26 5.20 3.61 3.87 3.83 4.05 3.21	1.10 1.58 1.70 1.22 1.31 1.24 1.67 1.22	11 3 11 11 11 3 11 11
WEST CENTRAL Bessie Butler Camargo Cheyenne Elk City	38.4 38.0 37.0 38.7 38.7	66 68 69 66	7 5 7 7	16 13 13 15 16	30 29 29 30 30	826 836 868 815 816	0 0 0 0	1.02 .82 .78 .71 .59	.68 .40 .30 .39 .25	11 4 4 4 4	Erick Putnam Watonga Weatherford	38.5 37.1 37.6 37.2	67 65 64 63	7 7 7 7	17 15 16 15	30 30 30 23	821 866 849 861	0 0 0 0	.78 .92 1.15 1.10	.50 .47 .48 .58	4 4 11
CENTRAL Acme Bristow Lake Carl Blac Chandler Chickasha El Reno Guthrie Kingfisher Marena Minco Marshall	39.0 37.4 36.6 38.4 38.6 36.9 38.1 37.4 37.3 37.9 37.0	66 69 66 66 67 65 67 65 65	18 7 5 7 7 7 7 5 7 7	15 13 16 17 14 17 13 18 16	29 25 20 29 25 20 29 25 20 29	807 857 879 823 817 871 835 855 860 839 869	0 0 0 0 0 0 0 0 0 0	2.22 3.94 2.29 3.53 1.83 1.30 2.10 1.38 2.50 1.62 1.82	.57 1.76 1.02 1.92 .69 .46 .52 .80 .52 .86 .57 .84	3 3 11 4 3 4 11 11 11 11 4 11	Norman Oilton OKC East Okemah Perkins Seminole Shawnee Spencer Stillwater Washington Yukon	38.6 36.6 38.3 37.5 39.1 38.6 38.6 37.6 39.2 37.9	67 68 69 66 71 68 67 68 68 66	7 7 7 7 7 7 7 7 7 7	18 11 15 16 17 15 15 17 16	20 25 20 25 20 20 20 20 20 20 20	817 879 827 830 851 820 819 851 798 840	0 0 0 0 0 0 0 0 0 0	2.03 3.53 2.00 2.90 2.85 3.00 2.72 2.33 2.63 2.10 1.55	.73 1.34 .53 1.34 1.05 1.46 1.09 .62 1.08 .87 .45	3 11 11 3 3 4 11 3 11 4
EAST CENTRAL Cookson Eufaula Haskell Hectorville Holdenville McAlester Okmulgee	37.4 39.2 37.5 38.0 39.1 39.0 37.6	69 71 70 69 71 72 71	7 7 7 7 7 7 7	12 17 15 15 16 15 15	25 29 25 25 25 29 29	857 799 853 837 804 806 849	0 0 0 0 0 0	4.88 3.57 3.93 4.00 3.28 3.33 4.14	1.25 1.40 1.46 1.64 1.45 1.49 1.72	3 3 4 3 3 3	Sallisaw Stigler Stuart Tahlequah Webbers Falls Westville	38.0 38.2 39.6 36.6 38.6 36.8	72 71 71 68 70 67	7 7 7 7 7 7	16 16 17 12 19 12	29 20 29 29 25	838 832 786 882 819 873	0 0 0 0 0	3.66 3.83 3.11 5.41 3.64 5.29	1.46 1.71 1.33 1.67 1.33 1.50	3 3 3 3 3 3
SOUTHWEST Altus Apache Fort Cobb Grandfield Hinton Hobart	40.4 38.4 37.7 ***** 37.4 38.9	73 66 66 *** 65	18 7 7 *** 7 18	17 17 15 *** 17 17	29 25 29 *** 30 29	762 824 845 **** 857 808	0 0 **** 0 0	.58 1.49 1.20 1.24 1.06 .60	.24 .56 .42 .38 .40 .24	3 5 11 11 4 3	Hollis Mangum Medicine Park Tipton Walters	40.4 38.9 40.1 40.6 40.4	76 71 66 71 69	18 18 7 18 18	15 14 19 18 19	29 29 25 29 23	762 809 772 756 762	0 0 0 0	.35 .54 1.36 .64 2.04	.16 .28 .57 .27 .63	3 4 4 3 11
SOUTH CENTRAL Ada Ardmore Burneyville Byars Centrahoma Durant Fittstown Ketchum Ranch	39.6 41.7 41.8 40.0 39.7 42.1 39.4 40.5	71 69 70 70 73 72 70 68	7 7 7 7 7 7 7 6	16 21 18 16 16 20 15 19	29 20 29 20 29 20 20 20	786 724 720 776 784 709 793 761	0 0 0 0 0 0 0	2.93 2.26 2.00 2.66 2.56 1.87 2.29 2.31	1.51 1.13 1.10 1.25 1.36 .89 1.05 1.04	3 11 11 3 3 3 11	Lane Madill Newport Pauls Valley Ringling Sulphur Tishomingo Waurika	40.4 41.4 41.5 40.0 41.4 39.3 39.9 41.7	74 70 69 70 68 70 70 72	7 7 7 6 7 7 18	18 19 18 20 15 17 20	29 29 29 29 29 29 29 29	762 733 730 776 733 797 779 722	0 0 0 0 0 0 0	2.24 2.39 2.31 2.89 2.20 2.61 2.61 2.47	.89 1.34 1.15 1.16 1.11 1.11 1.11 1.27	3 11 11 11 11 3 3 11
SOUTHEAST Antlers Broken Bow Clayton Cloudy Hugo Idabel	39.7 42.0 40.2 40.6 41.8 42.7	74 72 74 72 73 72	7 7 7 7 7 7	17 21 16 18 21 21	29 20 29 29 20 20	785 713 **** 756 720 693	0 0 **** 0 0	2.42 3.43 2.48 2.80 2.39 3.30	1.01 .99 1.03 .92 .82 1.08	3 3 3 3 3 3 3	Mt Herman Talihina Valliant Wilburton Wister	40.7 39.8 42.1 39.4 38.6	71 74 72 74 74	7 7 7 7 7	17 17 19 17 15	29 29 29 29 29	754 780 709 794 819	0 0 0 0	3.05 2.39 2.69 2.78 2.55	.88 .94 .83 1.21 1.00	3 3 3 3 3



#### **2019 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL**

#### January 2019 Mesonet Precipitation Comparison

<b>Climate Division</b>	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Jan-18 (inches)
Panhandle	0.60	0.06	38th Wettest	1.94 (2017)	0.00 (1923)	0.02
North Central	1.35	0.38	26th Wettest	4.16 (1949)	0.00 (1986)	0.08
Northeast	3.87	2.15	7th Wettest	6.87 (1916)	0.01 (1986)	0.59
West Central	0.87	-0.04	49th Wettest	3.74 (1949)	0.00 (1976)	0.00
Central	2.37	0.93	17th Wettest	5.58 (1949)	0.00 (1986)	0.27
East Central	4.01	1.59	15th Wettest	11.21 (1916)	0.04 (1986)	1.26
Southwest	1.01	-0.11	48th Wettest	4.48 (1949)	0.00 (1912)	0.07
South Central	2.41	0.41	35th Wettest	7.70 (1916)	0.03 (1986)	0.50
Southeast	2.75	-0.36	63rd Driest	11.13 (1949)	0.20 (1943)	2.25
Statewide	2.17	0.61	23rd Wettest	5.35 (1949)	0.03 (1986)	0.53

#### 2019 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL

Main Temperature (degrees F)



#### January 2019 Mesonet Temperature Comparison

<b>Climate Division</b>	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Jan-18 (F)
Panhandle	35.8	0.9	42nd Warmest	42.9 (2006)	19.7 (1940)	35.6
North Central	36.4	1.3	35th Warmest	45.0 (2006)	18.8 (1940)	34.5
Northeast	36.1	0.3	59th Warmest	46.2 (2006)	20.6 (1940)	34.4
West Central	37.9	0.9	41st Warmest	46.1 (2006)	21.3 (1930)	36.7
Central	37.9	0.0	54th Warmest	47.7 (2006)	22.8 (1930)	37.4
East Central	38.1	-0.5	58th Coolest	48.0 (1923)	24.8 (1918)	36.7
Southwest	39.3	-0.1	52nd Warmest	48.1 (2006)	23.6 (1930)	38.8
South Central	40.7	-0.1	55th Warmest	49.7 (1923)	27.5 (1930)	38.6
Southeast	40.6	0.2	57th Warmest	48.7 (1907)	27.7 (1918)	37.3
Statewide	38.0	0.3	52nd Warmest	46.8 (2006)	23.7 (1940)	36.6

## **MESONET EXTREMES FOR JANUARY 2019**

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	78	6th	Slapout	-2	2nd	Eva	0.87	Arnett	0.58	4th	Arnett
North Central	72	6th	Woodward	9	30th	Newkirk	2.61	Red Rock	1.25	11th	Blackwell
Northeast	70	7th	Porter	7	25th	Vinita	5.20	Pryor	1.94	11th	Miami
West Central	69	5th	Camargo	13	29th	Camargo	1.15	Watonga	0.68	11th	Bessie
Central	71	7th	Seminole	11	25th	Oilton	3.94	Bristow	1.92	4th	Chandler
East Central	72	7th	McAlester	12	25th	Westville	5.41	Tahlequah	1.72	3rd	Okmulgee
Southwest	76	18th	Hollis	14	29th	Mangum	2.04	Walters	0.63	11th	Walters
South Central	74	7th	Lane	15	29th	Sulphur	2.93	Ada	1.51	3rd	Ada
Southeast	74	7th	Antlers	15	20th	Wister	3.43	Broken Bow	1.21	3rd	Wilburton
Statewide	78	6th	Slapout	-2	2nd	Eva	5.41	Tahlequah	1.94	11th	Miami

#### **Oklahoma Climate Divisions**



## U.S. Drought Monitor Oklahoma

#### January 29, 2019 (Released Thursday, Jan. 31, 2019) Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	99.22	0.78	0.00	0.00	0.00	0.00
Last Week 01-22-2019	100.00	0.00	0.00	0.00	0.00	0.00
3 Month s Ago 10-30-2018	92.31	7.69	1.60	0.00	0.00	0.00
Start of Calendar Year 01-01-2019	94.85	5.15	0.00	0.00	0.00	0.00
Start of Water Year 09-25-2018	72.93	27.07	9. 11	4. 16	0.00	0.00
One Year Ago 01-30-2018	0.00	100.00	99.76	81.45	21.11	0.00



D0 Abnormally Dry

D3 Extreme Drought D1 Moderate Drought D4 Exceptional Drought

D2 Severe Drought The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

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National Drought Mitigation Center



http://droughtmonitor.unl.edu/



#### **INTERPRETATION INFORMATION**

**MEAN DAILY TEMPERATURE:** Calculated from an average of the daily maximum and minimum temperatures. Daily averages are summed for each day, and then divided by the number of valid data points – typically the number of days in the month. Although this November differ from the "true" daily average, it is consistent with historical methods of observation and comparable to the normals and extremes for stations and regions of the state.

**DEGREE DAYS**: Degree Days are calculated each day of the month for which there is a temperature report and the mean temperature for the day is less than (Heating Degree Days) or greater than (Cooling Degree Days) 65 degrees. Daily values are summed to arrive at a monthly total. HDD/CDD are qualitative measures of how much heating/ cooling was required to maintain a comfortable indoor temperature. Missing observations November result in an artificially high or low value.

#### **ADDITIONAL RESOURCES**

SUNRISE / SUNSET TABLES U.S. Naval Observatory: <u>http://aa.usno.navy.mil/data</u>

**SEVERE STORM REPORTS** Storm Prediction Center: <u>http://spc.noaa.gov/climo/</u>

National Centers for Environmental Information: <a href="https://www.ncdc.noaa.gov/stormevents/">https://www.ncdc.noaa.gov/stormevents/</a>

SEASONAL OUTLOOKS Climate Prediction Center: http://www.cpc.ncep.noaa.gov/products/OUTLOOKS\_index.shtml

CLIMATE CALENDARS AND OTHER LOCAL WEATHER AND CLIMATE INFORMATION Oklahoma Climatological Survey: http://climate.mesonet.org\_or\_http://climate.ok.gov/ **OKLAHOMA** CLIMATOLOGICAL SURVEY

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