Oklahoma Monthly Climate Summary

DECEMBER 2012

OKLAHOMA CLIMATOLOGICAL SURVEY

A slide back to true wintry weather, the likes of which had not been seen across Oklahoma since early February 2011, was not enough to prevent the inevitable. Although the official numbers will not be released by the National Climatic Data Center (NCDC) for a few more days, it appears likely that 2012 will go down in the record books as Oklahoma's warmest year on record. Those records date back to 1895. Preliminary data from the Oklahoma Mesonet indicate a statewide average temperature of 41.9 degrees for December. That is 2.9 degrees above normal and ranks the month as the 27th warmest December on record. More importantly, it would give 2012 a sizeable lead over 1954 and the likely title of warmest calendar year on record for the state at 63.1 degrees, 3.5 degrees above normal. According to data from the National Weather Service (NWS), Oklahoma City and Tulsa also eclipsed their previous warmest years on record with 64.1 degrees and 64.7 degrees, respectively. Oklahoma City's previous best was 63.9 degrees from 2006 and Tulsa's was 63.7 degrees from 1921 and 1954. Oklahoma was not alone in dealing with unusual warmth during 2012. Officials from NCDC say it is a virtual certainty that 2012 will become the warmest year on record across the contiguous United States.

Oklahoma's previous calendar year record of 62.8 degrees from 1954 was in jeopardy from the year's opening bell. January finished 6.5 degrees above normal to rank as the 11th warmest on record, and the heat continued to build from there. March far outpaced its previous record at more than 9 degrees above normal and propelled Oklahoma to its warmest spring on record. The summer may not have matched 2011's record level, the hottest for any state since records began in 1895, but it was extreme by any other measure. The statewide average of 82.2 degrees ranked as the 11th warmest June-August period on record. October was the only month during 2012 to end with below normal temperatures. December became the 27th month out of the last 33 to finish warmer than normal, a streak that began with April 2010. Buoyed by the record summer of 2011 and the extended warmth of 2012, the statewide average temperature estimate of 62.4 degrees for the two years combined exceeds the previous record of 62.1 degrees from 1953-1954. The lowest temperature recorded by the 120 Mesonet sites during 2012 was the 1 degree below zero reading at Beaver on Dec. 26. The highest temperature of 115 degrees was recorded at Kingfisher on Aug. 1.

Drought continued to dominate Oklahoma's weather story for the second consecutive year. A period of storminess during the year's final week provided beneficial moisture to parts of Oklahoma, but December finished dry nonetheless. According to estimates from the Oklahoma Mesonet, the statewide average precipitation total during December was 1.06 inches, about an inch below normal and the 38th driest on record. That brings the estimate for 2012 to 25.92 inches, 10.77 inches below normal and just slightly ahead of 2011's 25.23 inches. That two-year combined total of 51.15 inches is the fourth lowest on record. The 1909-1910 total of 46.21 inches is the lowest since records began in 1895. The highest total recorded by the Mesonet during 2012 was Clayton's 40.6 inches. Kenton brought up the rear at 11.7 inches.

Most of the state experienced a short reprieve from the devastating 2011 drought episode thanks to abundant rains from October 2011-March 2012, the 12th wettest October-March period on record. Only 15 percent of Oklahoma was experiencing drought on May 15 according to the U.S. Drought Monitor. As summer approached, however, the heat mounted as did the rainfall deficits. The May-December statewide average of 13.96 inches was the driest such period on record and led the entire state to being depicted in at least severe drought conditions on the year's final U.S. Drought Monitor map. Over 37 percent of the state was considered to be under exceptional drought, the Monitor's worst designation. More than $400 million in damage to agricultural interests occurred during 2012 according to experts from Oklahoma State University. That brings the two-year agricultural damage estimate to more than $2 billion.

December 2012 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	86°F	Hollis	1
Low Temperature	-1°F	Beaver	26
High Precipitation	4.49 in.	Broken Bow	--
Low Precipitation	0.16 in.	Boise City	--

December 2012 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2012)
Month (December)	41.9°F	2.9°F	27th Warmest
Year-to-Date (Jan-Dec)	63.0°F	2.1°F	1st Warmest

Precipitation

	Average	Depart.	Rank (1895-2012)
Month (December)	1.06 in.	-0.96 in.	38th Driest
Year-to-Date (Jan-Dec)	25.94 in.	-10.75 in.	12th Driest

Depart. = departure from 30-year normal

DECEMBER 1-3: Multiple fronts moved through Oklahoma at the beginning of December. One cold front pushed southeastward from northwest Oklahoma and retreated backwards on the first and second, while another cold front was able to move all the way into central Oklahoma on the third. Both fronts allowed for unseasonably warm temperatures ahead of them, fashioning the majority of December's record events. Oklahoma City and Tulsa broke their warmest daily temperature records on the first at 77 degrees. Tulsa also broke its highest daily minimum and average temperature on that day at 59 and 68 degrees, respectively. On the third, Oklahoma City reached a new high temperature record at 79 degrees, as well as McAlester at 78 degrees. Tulsa claimed a record event spot once again by measuring 67 degrees for the new daily high average temperature. The lowest maximum temperatures were observed in the panhandle, reaching into the low 60s. Minimum temperatures throughout the state ranged from the upper 20s to the 60s. The only precipitation observed during this period was in a small portion of northeast Oklahoma that received just over a tenth of an inch. Wind speeds were reasonably high, averaging between 10-20mph and gusting into the 30s and 40s.

DECEMBER 4-8: The previous day's cold front that extended into central Oklahoma created a noticeable drop in maximum temperatures. Except for highs in the upper 60s on the fifth, the warmest maximum temperatures generally extended into the 70s. The lowest maximum temperatures were observed in the northern half of the state, spanning between 48 and 60 degrees. Wind speeds averaged between 5 and 15mph from the fourth to the sixth, but dropped between 2 and 10mph on the seventh and eighth. The only substantial precipitation during this period was in far eastern Oklahoma. The highest amounts were measured in Westville at 1.39 inches and Tahlequah at 0.41 inches. Moisture continued to be observed; however, in the form of light drizzle and fog throughout areas of the state on the seventh and eighth. At times, visibility declined to less than a quarter of a mile.

DECEMBER 9-13: A strong cold front moved through the state, drastically reducing maximum temperatures. The most evident cool down was in the panhandle on the 10th. The highest temperature reported on that day was 46 in Idabel, followed by 45 in Broken Bow. Accordingly, the lowest temperatures observed were 1 degree in Hooker and 4 degrees in Boise City. McAlester broke a new daily low temperature record on the 11th (13 degrees), followed ironically by a new daily high temperature record on the 12th (72 degrees). A snow band moved through the southern half of the state on the 11th, producing accumulations of less than half an inch. High temperatures gradually climbed in the days that followed, increasing by a little less than 10 degrees each day. The low minimum temperatures followed suit, climbing from the single digits into the 20s. The highest minimum temperatures ranged from the mid-20s to mid-40s. Although the average wind speed tendency was between 5 and 15mph, the ninth was fairly breezy with maximum gusts in the mid-upper 40s.

DECEMBER 14-18: A short bout of precipitation occurred on the 14th that brought a tenth to a quarter inch of rain to much of the state. South-central and southwestern Oklahoma received the brunt of it, measuring just under half an inch in Apache, Cheyenne and Chickasha. The rain cleared out on the morning of the 15th, with the 16th-18th experiencing rather uneventful, yet pleasant, weather. Skies remained mostly sunny and wind speeds fluctuated between 5 and 10mph. Stronger wind gusts in the upper 40s and low 50s transpired on the 14th and 15th. Hobart measured 55mph and Putnam measured 52mph on the 14th. Although maximum temperatures remained in the 50s and 60s for the majority of Oklahoma, portions of southeast Oklahoma peaked into the low-mid 70s. The coolest high temperature was 38 degrees in Beaver and Boise City on the 16th. Minimum temperatures fell anywhere between the low 20s to low 50s.

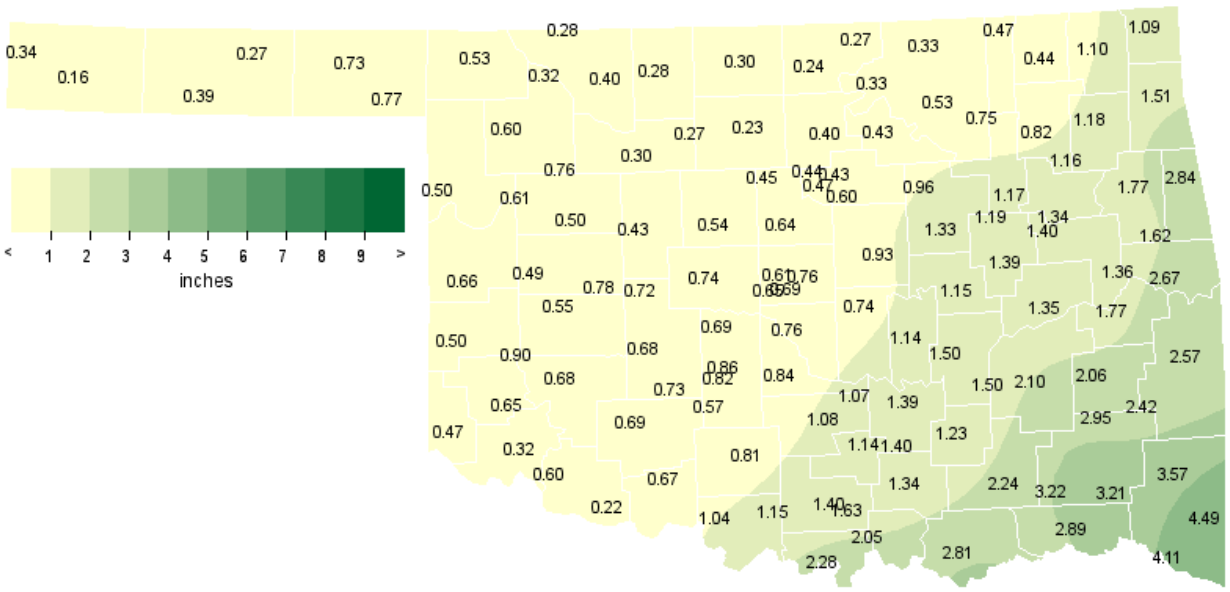
DECEMBER 19-22: Shortly after Tulsa and McAlester broke their daily high temperature records on the 19th (Tulsa: 70 and McAlester: 72), another strong cold front moved through the region. Precipitation amounts ranged from a quarter of an inch to an inch in southeast Oklahoma. The highest amounts were seen at Sallisaw (1.06 inches) and Antlers (.90 inches). The front's associated moisture, cool temperatures, and increased average wind speeds (10-20mph) worked collectively to produce light blowing snow on the 20th. Maximum temperatures were predominantly in the 50s and 60s. Minimum temperatures averaged in the 30s on the 19th, but fell into the 20s on the 20th and teens on the 21st. There was extreme variability in minimum temperatures on the 22nd, with 14 degrees reported at Lake Carl Blackwell and 40 degrees at Ada and the Oklahoma City North Mesonet site.

DECEMBER 23-24: Continuing this month's trend of frontal passages, the 23rd made way for yet another southeastward moving cold front. The spread of maximum temperatures ranged from the low 40s in north-central Oklahoma to the upper 60s in southeast Oklahoma on the 23rd. Christmas Eve had slightly cooler maximum temperatures, ranging between 34 degrees (Fairview) and 62 degrees (Mt. Herman). Minimum temperatures were as high as 46 in Cloudy and as low as 4 degrees in Kenton. Average wind speeds were between 5 and 10mph.

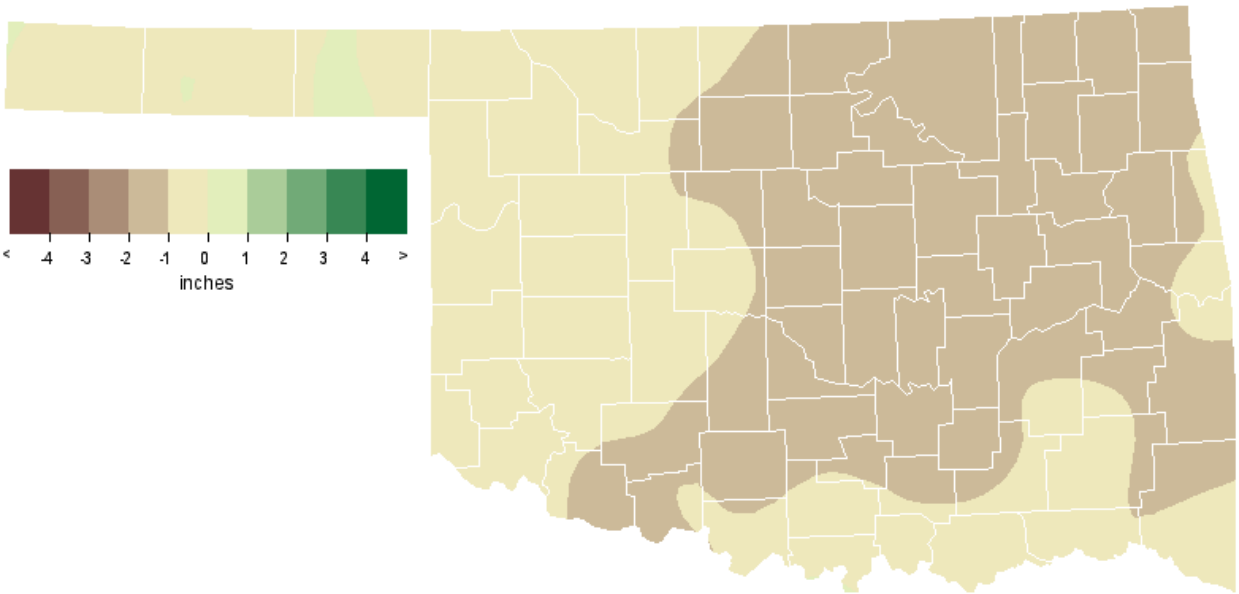
DECEMBER 25: On Christmas morning, light and freezing rain fell over much of Oklahoma, which later transitioned to snow in western Oklahoma. By the afternoon, a wintery mix of rain, sleet, and snow was evident across the state. Snowfall ranged from trace amounts to 4 inches. Precipitation amounts were as high as 2.36 inches in Idabel and 2.19 inches in Broken Bow. Breezy wind speeds with gusts in the upper 40s and 50s produced blizzard conditions in some areas. Maximum temperatures were between 18 degrees in the panhandle and 50 degrees in Idabel. Minimum temperatures were between 4 degrees in Kenton and 30 degrees in Broken Bow.

DECEMBER 26-31: The end of the month was fairly wet and cold. The National Weather Service in Norman acknowledged the morning of the 26th as the coldest thus far for 2012. Minimum temperatures were as low as -1 in Beaver. Except for a few portions in southeast Oklahoma that reached as high as 35 and 34 degrees, the majority of the state had maximum temperatures below freezing. Despite a weak cold front that passed through on the 27th, maximum temperatures increased slightly in the days that followed. Highs were in the 30s on the 27th and 28th, 40s on the 29th and 30th, and upper 30s and 40s on New Year's Eve. Apart from a few lows measuring in the single digits on the 26th, 27th, and 29th and climbing into the 30s on the 31st, minimum temperatures across the state were generally in the teens and 20s. The morning of the 28th had light snow falling in western and central Oklahoma, with a slightly heavier band that moved through central and southern Oklahoma later in the afternoon. Light precipitation was seen in south-central Oklahoma on the 29th and 30th, followed by heavier precipitation across much of Oklahoma on the 31st. Amounts as high as 1.12 inches and 1.11 inches were measured in Holdenville and Okmulgee on the 31st. Average wind speeds were between 5 and 10mph; Slapout reported a gust of 50mph on the 30th.

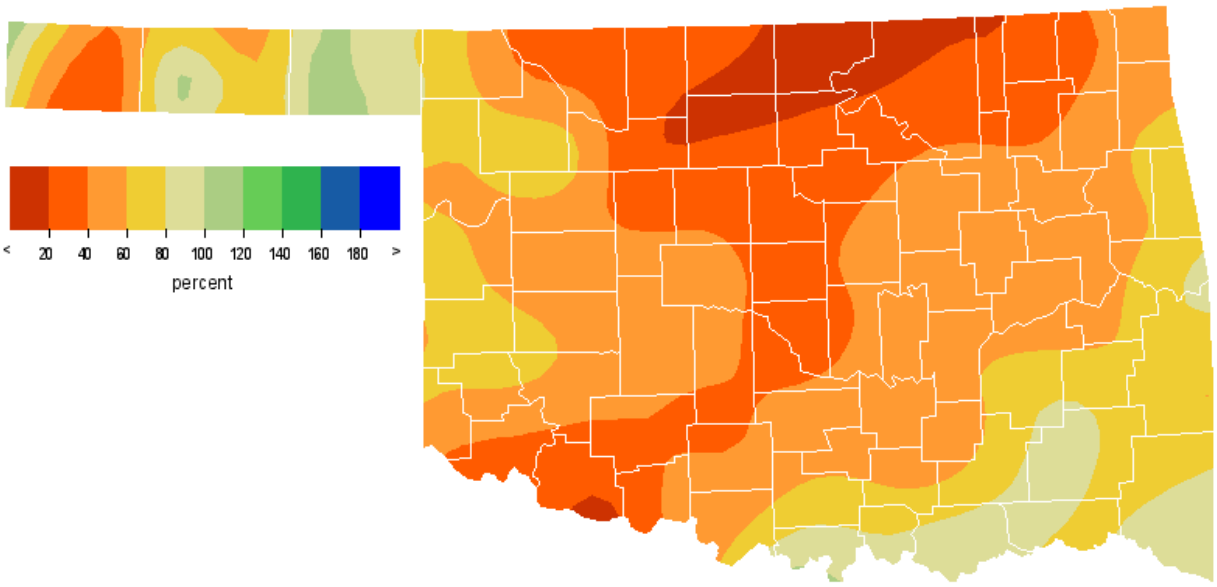
DECEMBER 2012 OBSERVED PRECIPITATION



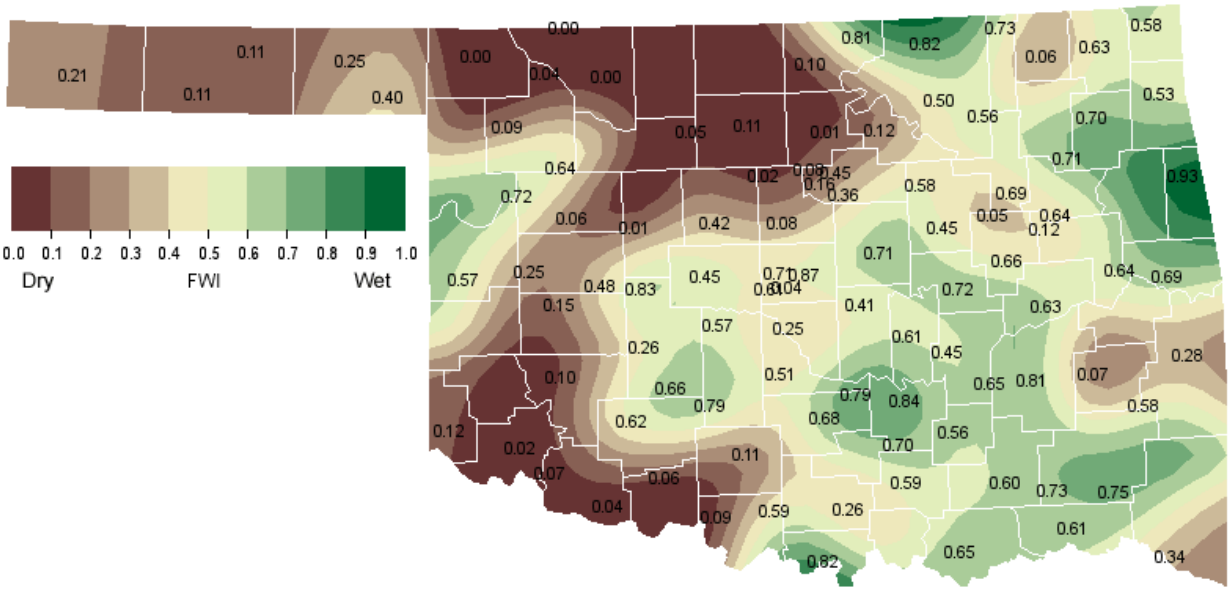
DECEMBER 2012 DEPARTURE FROM NORMAL PRECIPITATION



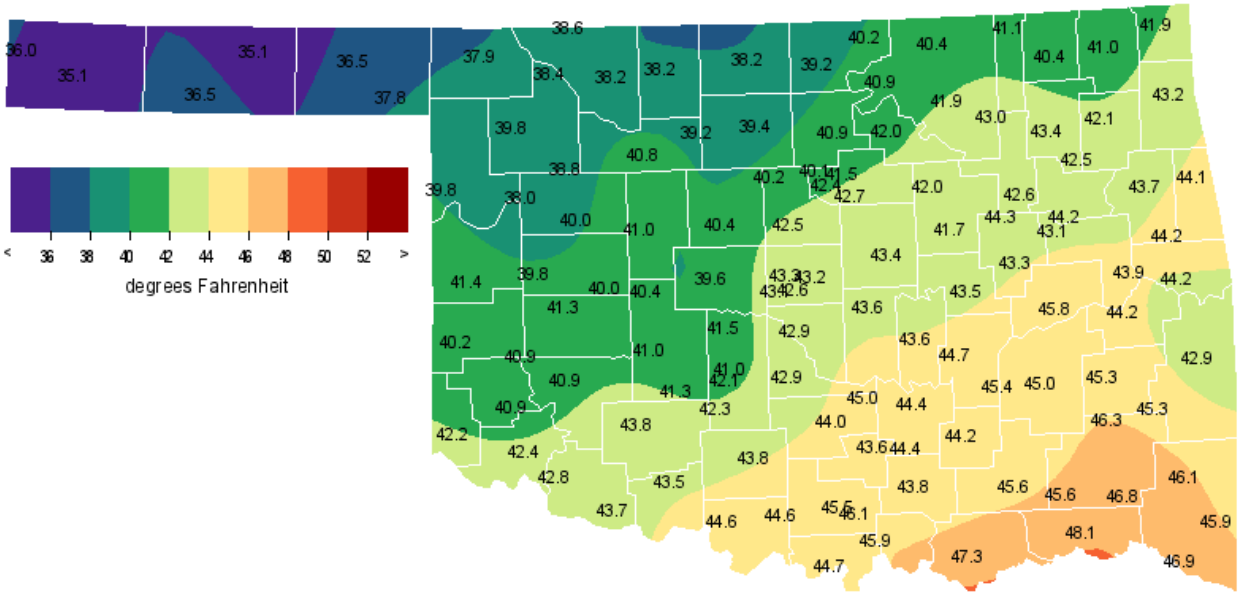
DECEMBER 2012 PERCENT OF NORMAL PRECIPITATION



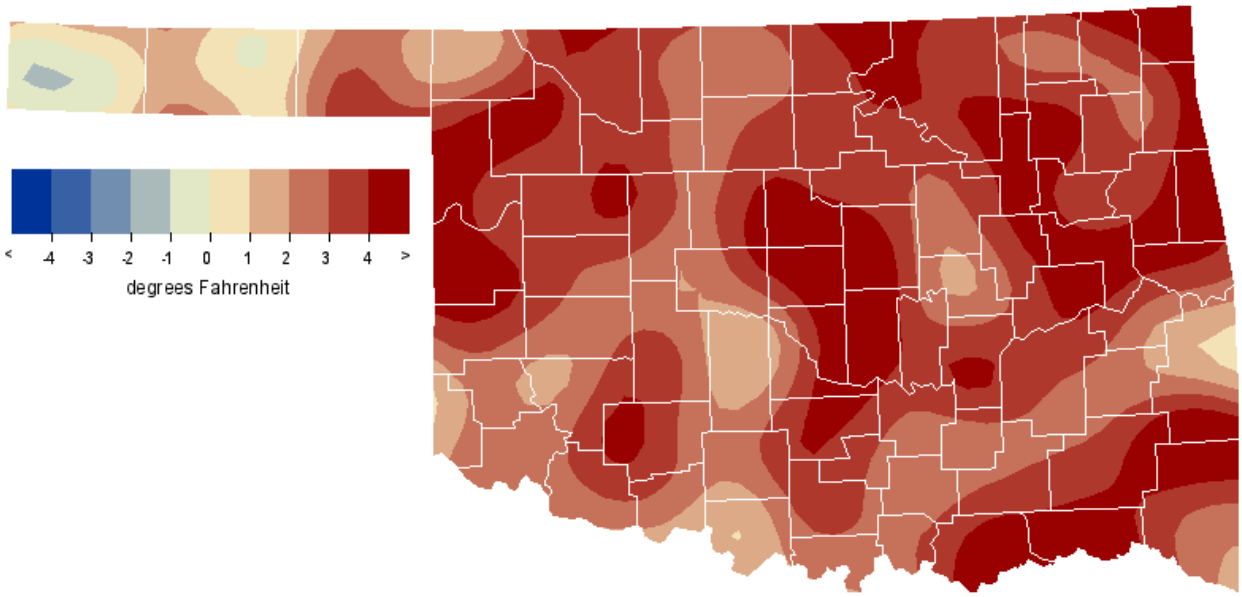
DECEMBER 2012 AVERAGE SOIL MOISTURE AT 25CM



DECEMBER 2012 AVERAGE TEMPERATURE



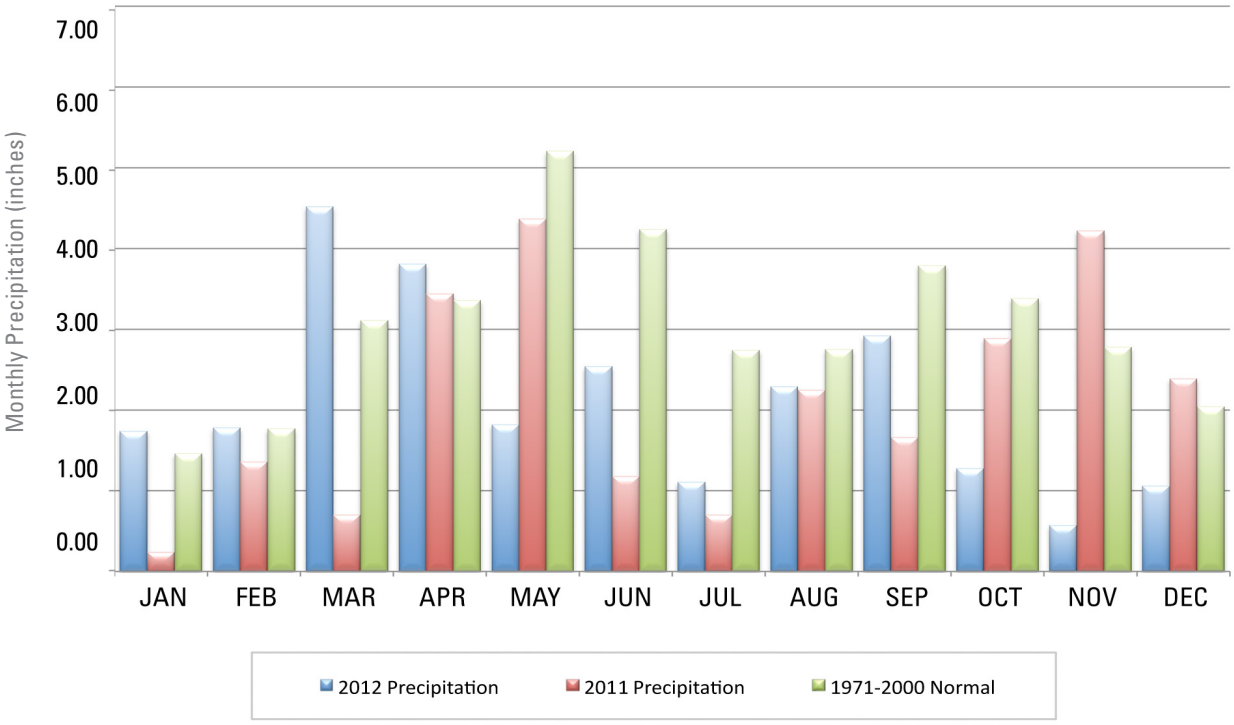
DECEMBER 2012 DEPARTURE FROM NORMAL TEMPERATURE



MESONET MONTHLY SUMMARY FOR DECEMBER 2012

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	39.8	79	1	5	26	781	0	.50	.33	31
Beaver	36.5	73	2	-1	26	884	0	.73	.39	31
Boise City	35.1	68	1	1	26	926	0	.16	.16	14
Buffalo	37.9	71	13	5	26	840	0	.53	.31	14
Goodwell	36.4	72	1	3	26	886	0	.39	.30	14
Hooker	35.1	72	2	0	26	927	0	.27	.21	14
Kenton	36.0	69	2	2	26	899	0	.34	.27	14
Slapout	37.9	71	2	4	26	841	0	.77	.48	31
NORTH CENTRAL										
Alva	38.3	69	3	7	26	829	0	.40	.19	14
Blackwell	39.2	76	3	9	26	799	0	.24	.13	31
Breckinridge	39.4	76	3	9	26	794	0	.23	.14	31
Cherokee	38.1	72	3	8	26	833	0	.28	.18	31
Fairview	40.8	76	3	10	26	750	0	.30	.16	31
Freedom	38.4	70	3	6	26	825	0	.32	.19	14
Lahoma	39.1	76	3	9	26	803	0	.27	.15	14
May Ranch	38.6	67	3	6	26	817	0	.28	.21	14
Medford	38.2	75	3	8	26	831	0	.30	.19	31
Newkirk	40.2	76	3	9	26	770	0	.27	.16	31
Red Rock	40.9	78	3	8	29	748	2	.40	.33	31
Seiling	38.8	77	1	9	26	811	0	.76	.42	31
Woodward	39.7	75	1	6	26	783	0	.60	.33	31
NORTHEAST										
Bixby	42.5	77	1	12	11	700	4	1.17	.92	31
Burbank	40.8	77	3	11	26	750	1	.33	.22	31
Claremore	43.4	76	1	13	26	673	3	.82	.63	31
Copan	41.1	75	1	12	26	740	0	.47	.22	14
Foraker	40.4	76	3	9	26	763	0	.33	.18	31
Inola	42.5	76	3	15	11	701	4	1.16	.70	31
Jay	43.2	75	2	15	29	681	6	1.51	.63	3
Miami	41.9	73	3	15	29	717	0	1.09	.51	3
Nowata	40.4	75	1	11	29	764	0	.44	.23	31
Pawnee	42.0	79	3	10	29	715	3	.43	.33	31
Porter	44.2	77	2	15	29	657	11	1.34	.88	31
Pryor	42.1	75	3	13	29	716	6	1.18	.55	31
Skiatook	43.0	76	1	12	29	685	4	.75	.46	31
Vinita	41.0	74	3	12	29	745	0	1.10	.72	3
Wynona	41.9	78	3	12	29	719	2	.53	.32	31
WEST CENTRAL										
Bessie	41.3	80	3	9	26	736	0	.55	.32	31
Butler	39.7	81	1	8	26	783	0	.49	.24	31
Camargo	38.0	80	1	7	26	837	0	.61	.32	31
Cheyenne	41.3	81	1	7	26	736	0	.66	.44	14
Erick	40.1	81	1	8	26	771	0	.50	.25	14
Putnam	39.9	76	3	8	26	777	0	.50	.27	31
Retrop	40.9	80	3	9	26	749	1	.90	.49	31
Watonga	41.0	77	3	10	26	745	0	.43	.25	31
Weatherford	40.0	78	3	8	26	775	1	.78	.51	31
CENTRAL										
Acme	42.3	80	3	11	26	709	5	.57	.31	31
Bowlegs	43.5	78	1	10	11	675	9	1.14	.95	31
Bristow	41.7	78	1	7	11	730	7	1.33	1.01	31
Lake Carl Blac	40.1	79	3	6	29	774	2	.44	.39	31
Chandler	43.4	79	3	13	26	677	8	.93	.63	31
Chickasha	41.0	80	3	10	29	747	3	.86	.42	14
El Reno	39.7	78	3	9	26	784	0	.74	.41	31
Guthrie	42.5	78	3	11	26	700	2	.64	.48	31
Kingfisher	40.4	79	3	8	29	764	1	.54	.42	31
Marena	42.4	78	3	9	29	701	1	.47	.39	31
Minco	41.5	78	3	11	26	728	0	.69	.34	31
Marshall	40.3	78	3	7	29	767	0	.45	.41	31
Ninnekah	42.1	80	3	12	29	713	3	.82	.40	14
Norman	42.9	79	3	13	26	687	3	.76	.41	31
Oilton	42.0	78	1	12	11	716	3	.96	.69	31
OKC East	42.7	78	3	12	26	693	2	.69	.36	31
OKC North	43.3	78	3	11	26	672	1	.61	.39	31
OKC West	43.1	78	3	12	26	680	2	.65	.32	31
Okemah	43.5	77	1	12	11	675	8	1.15	.96	31
Perkins	42.7	79	3	10	29	693	3	.60	.47	31
Shawnee	43.6	78	3	12	26	668	6	.74	.59	31
Spencer	43.2	78	3	12	26	677	1	.76	.43	31
Stillwater	41.4	79	3	12	26	734	3	.43	.36	31
Washington	42.9	80	3	13	26	692	6	.84	.46	31
EAST CENTRAL										
Cookson	44.2	75	2	14	11	653	9	1.62	.92	31
Eufaula	45.8	77	3	16	26	609	14	1.35	.93	31
Haskell	43.1	77	2	13	11	684	6	1.40	1.06	31
Hectorville	44.3	77	1	14	26	646	4	1.19	.92	31
Holdenville	44.7	76	1	14	26	639	10	1.50	1.12	31
McAlester	45.0	78	2	12	11	635	16	2.10	.83	31
Okmulgee	43.3	78	3	9	11	681	9	1.39	1.11	31
Sallisaw	44.1	79	3	13	11	651	5	2.67	1.06	19
Stigler	44.2	77	3	12	11	656	11	1.77	.67	31
Stuart	45.3	77	1	15	11	624	13	1.50	1.06	31
Tahlequah	43.7	75	2	14	11	666	7	1.77	.88	31
Webbers Falls	43.9	78	2	15	11	660	8	1.36	.78	31
Westville	44.1	75	2	15	29	655	7	2.84	1.39	4
SOUTHWEST										
Altus	42.4	83	1	12	26	703	3	.32	.17	31
Apache	41.3	79	3	9	26	735	1	.73	.46	14
Fort Cobb	41.0	79	3	8	26	747	2	.68	.32	14
Grandfield	43.7	84	1	12	26	666	7	.22	.17	31
Hinton	40.4	77	3	9	26	764	1	.72	.38	31
Hobart	40.8	81	3	9	26	749	0	.68	.36	14
Hollis	42.2	86	1	12	26	709	2	.47	.29	14
Mangum	40.9	84	1	9	26	747	1	.65	.37	14
Medicine Park	43.8	81	1	12	26	662	4	.69	.37	14
Tipton	42.8	83	1	12	26	693	4	.60	.40	14
Walters	*****	***	***	***	***	****	****	*****	*****	***
SOUTH CENTRAL										
Ada	44.3	78	1	12	11	654	12	1.39	1.00	31
Ardmore	46.1	80	2	16	26	601	17	1.63	.45	31
Burneyville	44.7	82	1	9	11	649	19	2.28	1.17	25
Byars	44.9	79	1	14	29	631	9	1.07	.80	31
Centrahoma	44.2	78	1	9	11	659	14	1.23	.63	31
Durant	47.2	80	2	15	11	569	18	2.81	1.07	25
Fittstown	44.4	78	2	12	11	648	10	1.40	.81	31
Ketchum Ranch	43.8	81	3	13	11	665	7	.81	.51	31
Lane	45.6	79	2	12	11	616	15	2.24	.73	25
Madill	45.9	80	2	12	11	611	18	2.05	.76	25
Newport	45.5	81	1	16	26	621	16	1.40	.45	31
Pauls Valley	44.0	80	1	13	11	660	9	1.08	.62	31
Ringling	44.6	81	1	14	26	643	10	1.15	.49	31
Sulphur	43.6	78	2	10	11	676	12	1.14	.76	31
Tishomingo	43.9	79	2	10	11	667	12	1.34	.57	31
Vanoss	*****	***	***	***	***	****	****	*****	*****	***
Waurika	44.6	83	3	13	11	642	11	1.04	.35	31
SOUTHEAST										
Antlers	45.5	80	2	10	11	621	18	3.22	1.06	25
Antlers	*****	***	***	***	***	****	****	*****	*****	***
Broken Bow	46.0	78	2	12	11	592	2	4.49	2.19	25
Clayton	46.3	79	2	12	11	598	19	2.95	.78	19
Cloudy	46.8	78	2	15	12	576	12	3.21	1.32	25
Hugo	48.1	81	2	17	11	545	19	2.89	1.32	25
Idabel	46.9	81	2	13	12	573	12	4.11	2.36	25
Mt Herman	46.1	76	3	14	11	596	11	3.57	1.18	25
Talihina	45.4	78	3	9	11	627	18	2.42	.60	25
Wilburton	45.3	78	3	11	11	628	18	2.06	.62	31
Wister	42.9	79	3	10	11	696	11	2.57	.66	31

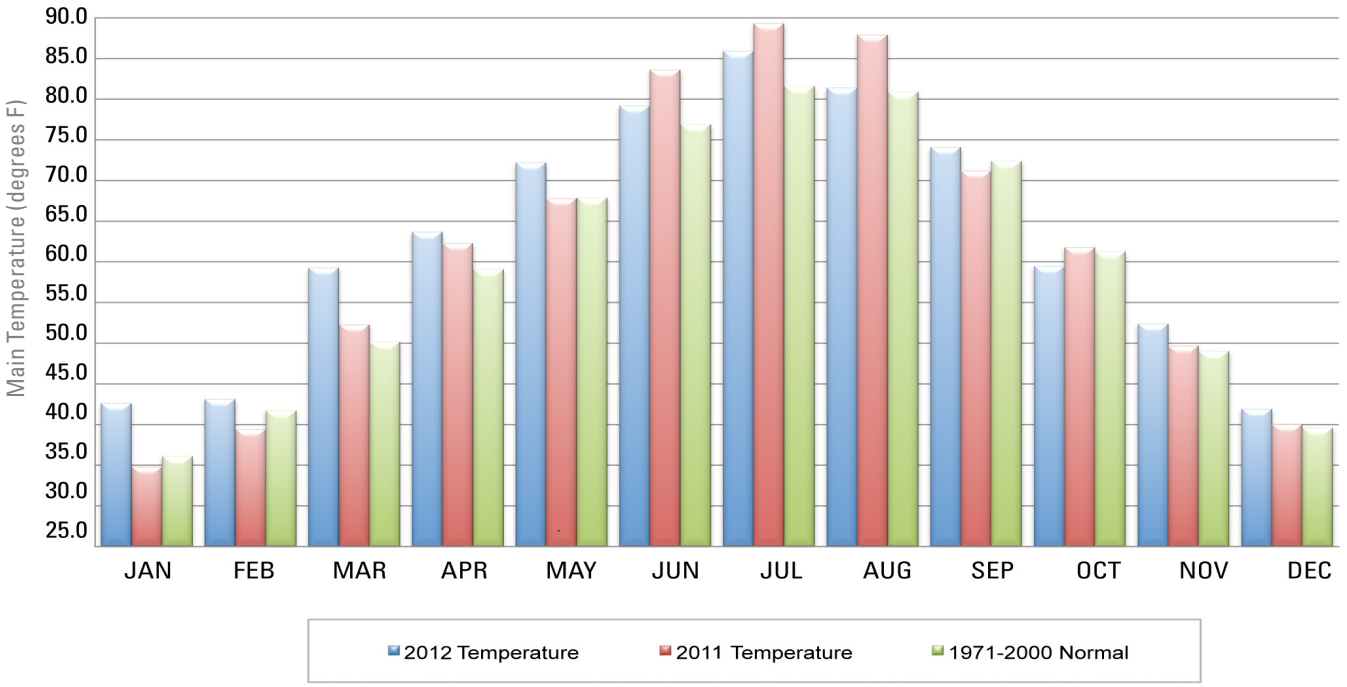
2011 AND 2012 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



December 2012 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Dec-11
Panhandle	0.46	-0.24	55th Wettest	4.49 (2006)	0.00 (1922)	2.15
North Central	0.36	-0.94	25th Driest	4.55 (1913)	0.00 (1922)	2.99
Northeast	0.84	-1.44	26th Driest	6.72 (1984)	0.16 (1950)	2.12
West Central	0.60	-0.54	48th Driest	4.03 (1932)	0.00 (1908)	1.97
Central	0.74	-1.27	32nd Driest	6.67 (1984)	0.00 (1908)	1.73
East Central	1.73	-1.25	44th Driest	8.95 (1987)	0.21 (1908)	2.34
Southwest	0.58	-0.80	40th Driest	4.94 (1991)	0.00 (1908)	1.66
South Central	1.50	-1.03	48th Driest	7.01 (1932)	0.07 (1950)	2.34
Southeast	3.15	-0.92	55th Driest	12.76 (1971)	0.25 (1917)	5.02
Statewide	1.06	-0.96	38th Driest	4.98 (1984)	0.10 (1950)	2.43

2011 AND 2012 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



December 2012 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Dec-11 (F)
Panhandle	36.8	1.8	38th Warmest	41.6 (1933)	22.6 (1983)	34.9
North Central	39.2	2.7	28th Warmest	43.7 (1965)	21.9 (1983)	37.7
Northeast	42.0	3.8	18th Warmest	45.1 (1931)	24.3 (1983)	40.3
West Central	40.3	2.9	28th Warmest	44.2 (1965)	24.0 (1983)	38.9
Central	42.2	2.9	26th Warmest	46.4 (1965)	25.3 (1983)	40.8
East Central	44.3	3.7	18th Warmest	47.6 (1933)	27.4 (1983)	41.3
Southwest	42.1	2.3	34th Warmest	46.7 (1965)	27.5 (1983)	40.7
South Central	44.8	2.7	28th Warmest	48.5 (1965)	29.2 (1983)	42.7
Southeast	45.9	3.5	22nd Warmest	50.7 (1984)	30.7 (1983)	43.0
Statewide	41.9	2.9	27th Warmest	45.4 (1965)	25.8 (1983)	40.0

RECORD EVENT REPORTS

Description	Day	Location	Record	Previous Record	Year
Daily Warmest High Temperature	1	Oklahoma City	77	76	1982
Daily High Temperature	1	Tulsa	77	77	1950
Daily High Minimum Temperature	1	Tulsa	59	59	1982
Daily High Average Temperature	1	Tulsa	68	68	1982
Daily Warmest High Temperature	3	Oklahoma City	79	77	1916
Daily High Temperature	3	McAlester	78	78	1995 & 2005
Daily High Average Temperature	3	Tulsa	67	67	1998
Daily Low Temperature	11	McAlester	13	13	1966
Daily High Temperature	12	McAlester	72	70	1978
Daily High Temperature	19	Tulsa	70	70	1967
Daily High Temperature	19	McAlester	72	70	1978

MESONET EXTREMES FOR DECEMBER 2012

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	79	1st	Arnett	-1	26th	Beaver	0.77	Slapout	0.48	31st	Slapout
North Central	78	3rd	Red Rock	6	26th	Freedom	0.76	Seiling	0.42	31st	Seiling
Northeast	79	3rd	Pawnee	9	26th	Foraker	1.51	Jay	0.92	31st	Bixby
West Central	81	1st	Erick	7	26th	Cheyenne	0.90	Retrop	0.51	31st	Weatherford
Central	80	3rd	Chickasha	6	29th	Lake Carl Blackwell	1.33	Bristow	1.01	31st	Bristow
East Central	79	3rd	Sallisaw	9	11th	Okmulgee	2.84	Westville	1.39	4th	Westville
Southwest	86	1st	Hollis	8	26th	Fort Cobb	0.73	Apache	0.46	14th	Apache
South Central	83	3rd	Waurika	9	11th	Centrahoma	2.81	Durant	1.17	25th	Burneyville
Southeast	81	2nd	Hugo	9	11th	Talihina	4.49	Broken Bow	2.36	25th	Idabel
Statewide	86	1st	Hollis	-1	26th	Beaver	4.49	Broken Bow	2.36	25th	Idabel

JANUARY OUTLOOK

The weather in Oklahoma during January, Oklahoma's coldest and driest month, is marked by many and rapid variations. Cold fronts move through the state on a regular basis, bringing air from colder regions of the earth, but cold weather rarely lasts for more than a few days at a time. The north or northwest winds that spread the colder air typically give way to a day or so of calm and sunshine, followed by a return to the prevailing southerly winds which dominate the state's weather throughout the year. The state is located within the range of the winter meandering of the jet stream. Oklahoma's proximity to both the warm waters of the Gulf of Mexico to the southeast and the mountain barrier to the west enhances the potential for the development of winter storms beneath the jet. The Gulf provides moisture and is a source of thermal energy that interacts with the areas of low pressure, which are initiated under the jet stream east of the mountains. This interaction often results in the development of winter storms. Many of the winter storms in the eastern half of the country are born in Oklahoma.

According to National Weather Service cooperative network data from 1971 through 2000, the statewide-averaged normal temperature for the month is 36.8 degrees. Normal temperatures across Oklahoma range from 41.9 degrees at Waurika in the south to 30.7 degrees at Turpin in the eastern panhandle. Normal daily maximum temperatures vary between 54.0 degrees at Waurika, near the Red River at Oklahoma's southern border, down to 41.9 degrees at Newkirk, near the state's northern border. Normal daily minimum temperatures range from 30.8 degrees at Okemah to 16.7 degrees at Turpin. The coldest January temperature ever recorded in the state is -27 degrees, recorded at Watts on January 18, 1930. At the other extreme, Cloud Chief reported a daily maximum temperature of 92 degrees on January 31, 1911. The warmest and coldest Januarys, averaged statewide, were 47.5 degrees in 1923 and 24.9 degrees in 1930, respectively.

Oklahoma's normal monthly precipitation during January, averaged across the state, is 1.46 inches. Normal monthly precipitation for the month ranges from 3.49 inches in the southeast at Broken Bow to 0.29 inch in the panhandle at Goodwell. Most of the precipitation falls as rain, although snow, sleet, and freezing rain are all observed. The statewide-averaged normal snowfall (including sleet) is 2.4 inches, most of which falls in the northern half of the state. The panhandle town of Boise City averages 7.0 inches of snow during January. On average, snowfalls of at least one inch occur on 2.5 January days at Boise City. The wettest January in the state's weather record is 1949, when the statewide average was 5.23 inches. The driest January was 1986, when the state's rain gauges collected an average of only 0.04 inches of precipitation. Smithville was deluged with 13.85 inches of precipitation during January 1950.

Snowfall records are not as reliable as those for temperature and total precipitation (which includes water obtained from melted snow), but the greatest January snowfalls appear to have been recorded in 1905, 1930, 1949, 1988, 1990, and 2001. Statewide information is somewhat sketchy regarding the 1905 event, but it is known that Fort Reno recorded a cumulative depth of 24.5 inches of snow over the course of the month. In January 1930, noted above for its extreme cold, 25.0 inches of snow fell at Jefferson, and the state's reporting stations averaged 11.7 inches for the month. The reported January 1949 snowfall totals include 30.1 inches at Union City and 25.3 inches at Ponca City. In 1988, most of the state was blanketed by 10 inches of snow (16 to 18 inches in some locales) in a major snowstorm that came on the heels of an ice storm during the previous month. Goodwell reported 16 inches on snow on January 19, 1990, accumulating 18 inches over a two-day period, in a snowstorm whose Oklahoma extent was mainly confined to the panhandle. The state record for January monthly snowfall is 32.7 inches, set at Kenton in 2001. Nearly half of that total (16 inches) was reported on the 16th.

Tornadoes are not usually a part of the January weather in Oklahoma, but the month is not immune to them. Reasonably reliable counts of tornadoes in the state are available since 1950. During that time, 12 tornadoes have occurred during January, including 4 each in 1957 and 1967. On January 4, 1917, an F3 tornado (severe damage, estimated wind speeds of 158-206 miles per hour) struck a Choctaw boarding school at Vireton (13 miles northeast of McAlester), killing 16 students and injuring 10 others.

Temperature

Mean	36.8 degrees
Warmest January	1923, 47.5 degrees
Coolest January	1930, 24.9 degrees
Hottest recorded	92 degrees, Cloud Chief, January 31, 1911
Coldest recorded	-27 degrees, Watts, January, 18, 1930
Hottest Location	Waurika, 41.9 degrees
Coolest Location	Turpin, 30.7 degrees

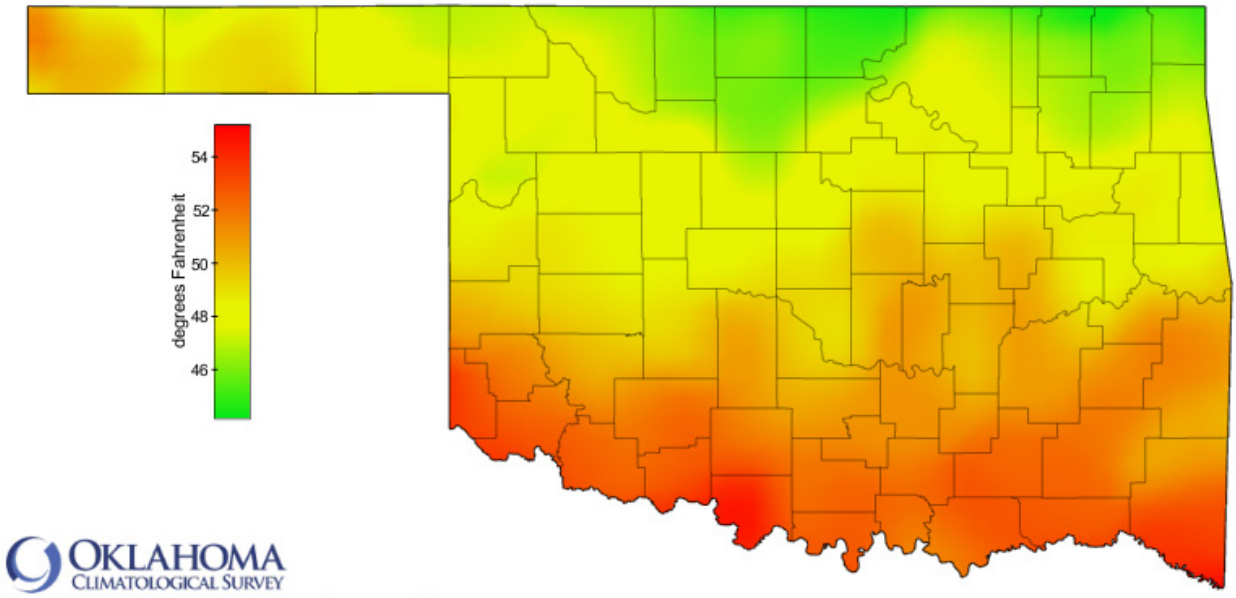
Precipitation

Mean	1.46 inches
Wettest Year	1949, 5.23 inches
Driest Year	1986, 0.04 inches
Wettest location	Broken Bow, 3.49 inches
Driest location	Goodwell, 0.29 inches
Most recorded	13.85 inches, Smithville, 1950

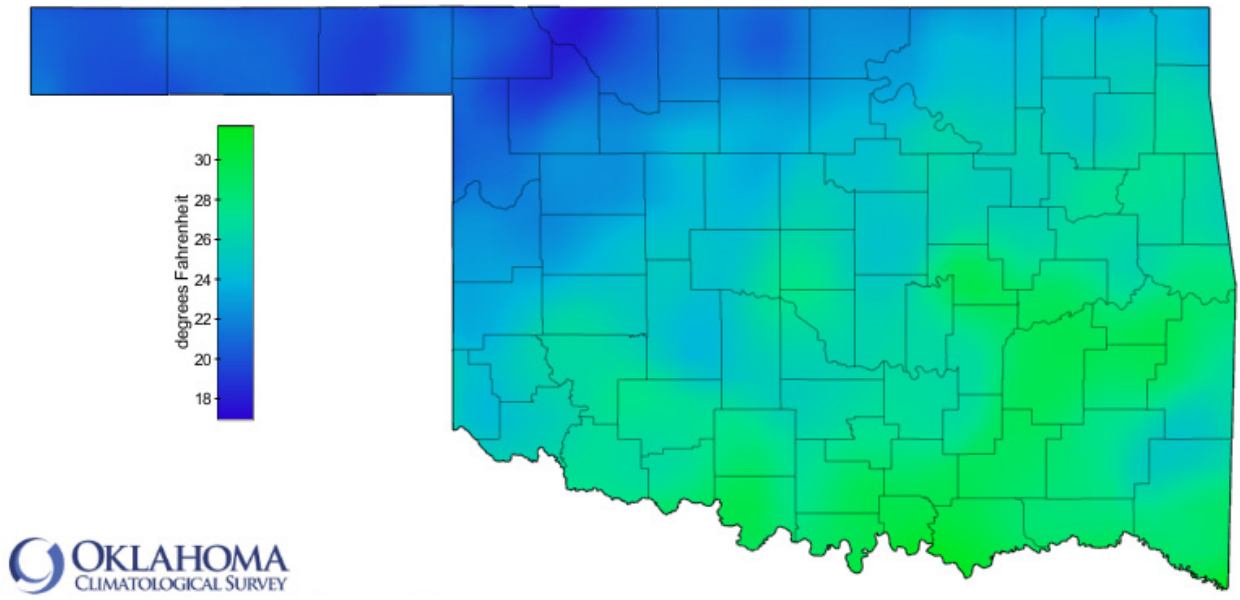
Tornadoes

Average January Tornadoes	0.3
Most	4 (1957, 1967, 2008)

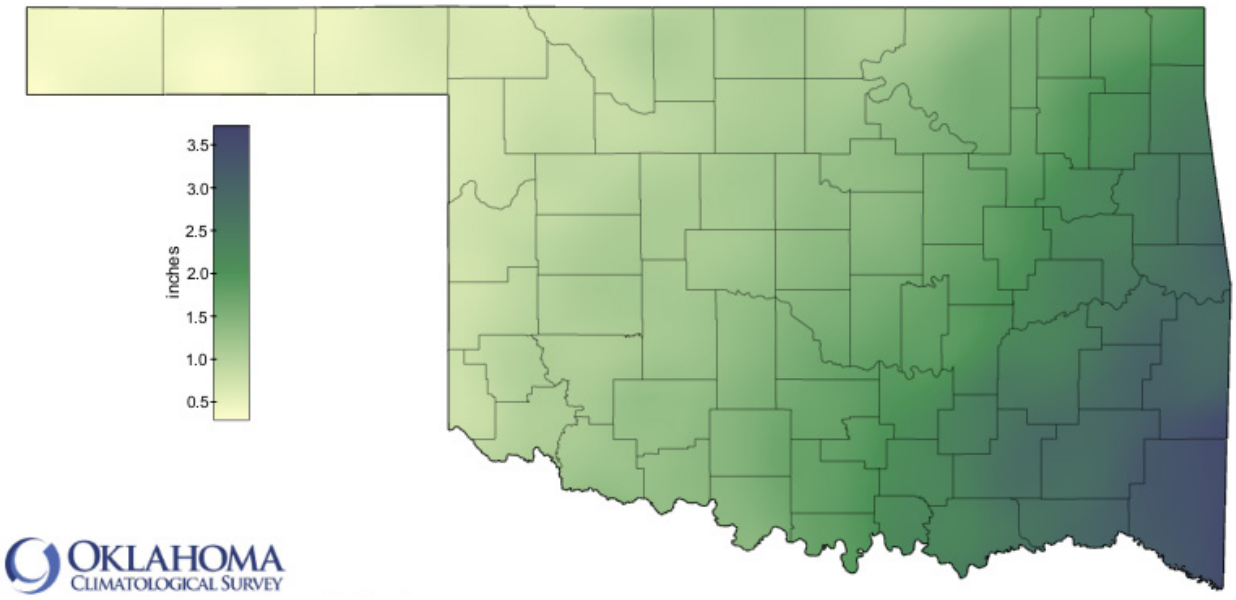
JANUARY NORMAL DAILY MAXIMUM TEMPERATURE (1981-2010)



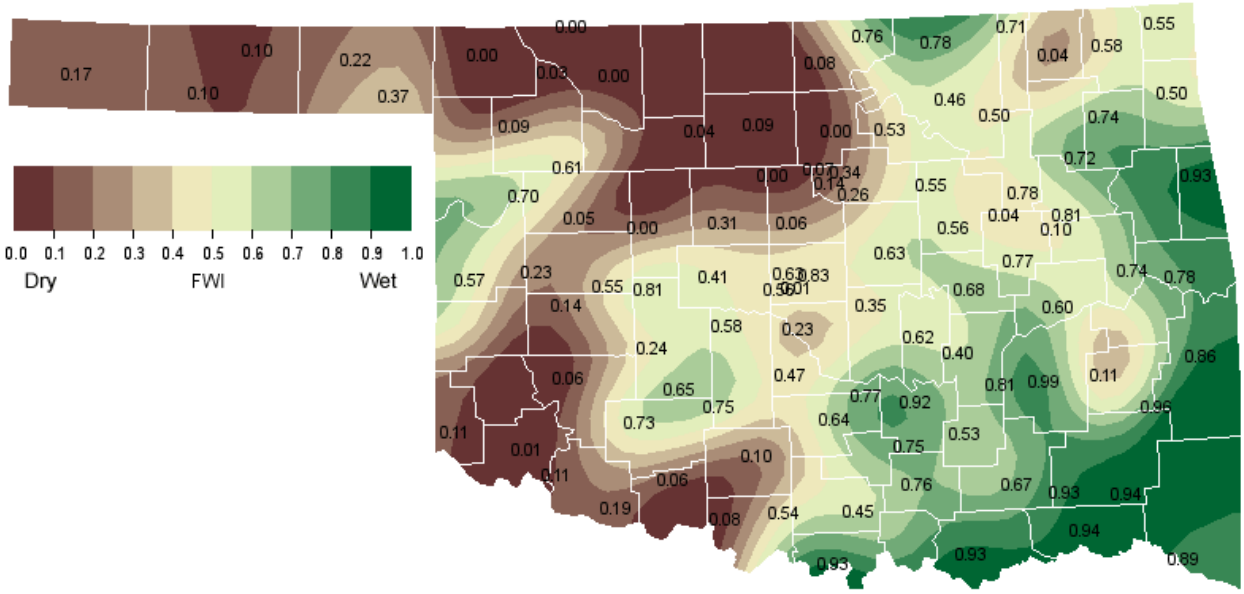
JANUARY NORMAL DAILY MINIMUM TEMPERATURE (1981-2010)



JANUARY NORMAL PRECIPITATION (1981-2010)



JANUARY 1, 2013 SOIL MOISTURE CONDITIONS AT 25CM



JANUARY 2013 DROUGHT INDICES

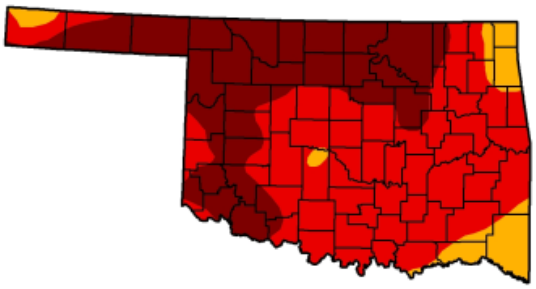
U.S. Drought Monitor

January 15, 2013
Valid 7 a.m. EST

Oklahoma

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	100.00	91.80	38.86
Last Week (01/08/2013 map)	0.00	100.00	100.00	100.00	94.89	37.06
3 Months Ago (10/16/2012 map)	0.00	100.00	100.00	99.43	66.75	27.13
Start of Calendar Year (01/01/2013 map)	0.00	100.00	100.00	100.00	94.89	37.06
Start of Water Year (09/25/2012 map)	0.00	100.00	100.00	99.98	95.33	42.09
One Year Ago (01/10/2012 map)	17.84	82.16	74.53	50.55	28.96	3.78



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

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

http://droughtmonitor.unl.edu

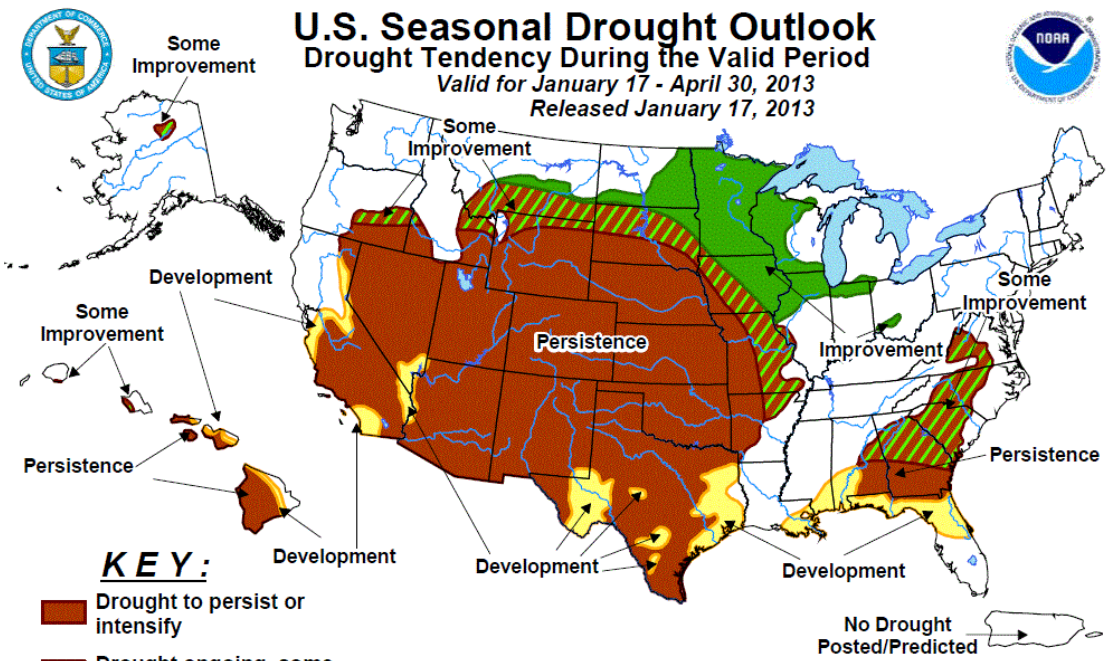
USDA | National Drought Mitigation Center

Released Thursday, January 17, 2013
David Simeral, Western Regional Climate Center

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid for January 17 - April 30, 2013
Released January 17, 2013

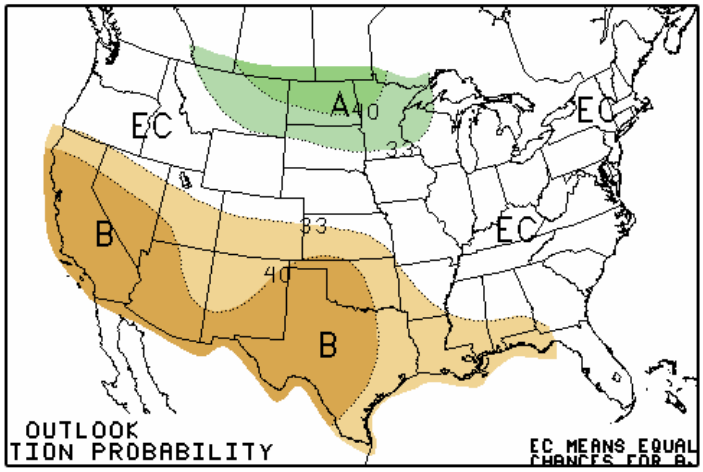


KEY:

- Drought to persist or intensify
- Drought ongoing, some improvement
- Drought likely to improve, impacts ease
- Drought development likely

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

JANUARY 2013 U.S. PRECIPITATION FORECAST



Percent Likelihood of Above or Below Average Precipitation*

- 5% - 10%
- 0% - 5%

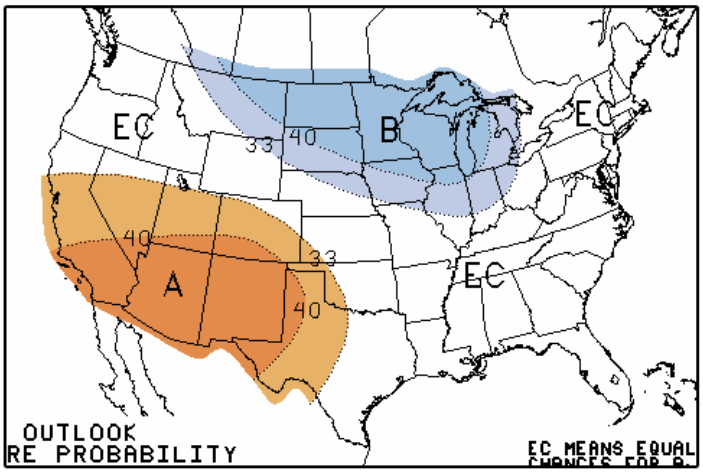
A = Above

- 0% - 5%
- 5% - 10%

B = Below

*EC indicates no forecasted anomalies due to lack of model skill.

JANUARY 2013 U.S. TEMPERATURE FORECAST



Percent Likelihood of Above or Below Average Temperatures*

- 10% - 20%
- 5% - 10%
- 0% - 5%

A = Above

- 0% - 5%
- 5% - 10%

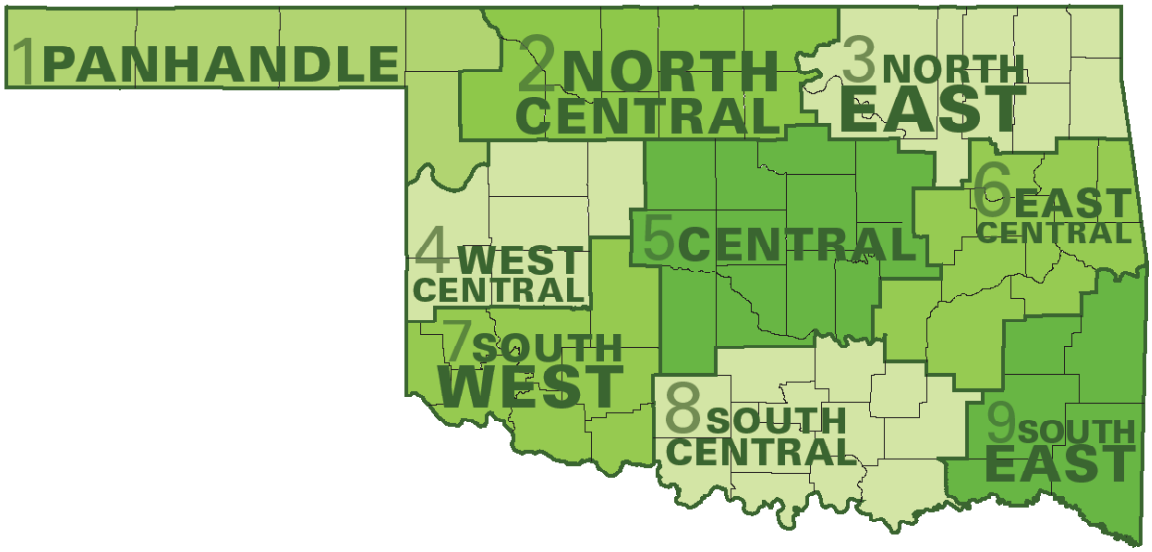
B = Below

*EC indicates no forecasted anomalies due to lack of model skill.

JANUARY CLIMATE NORMALS

Climate Division	Max. Temperature (°F)	Min. Temperature (°F)	Avg. Temperature (°F)	Precipitation (inches)
1	47.3	19.2	33.3	0.51
2	44.7	20.5	32.6	0.95
3	46.3	24.0	35.2	1.58
4	46.9	22.4	34.6	0.83
5	47.5	24.5	36.0	1.33
6	48.0	26.4	37.2	2.10
7	49.7	24.2	37.0	1.08
8	50.4	27.2	38.8	1.91
9	51.3	27.7	39.5	2.81
Statewide	47.9	24.1	36.0	1.51

Oklahoma Climate Divisions



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 may 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 may result in an artificially high or low value.

SEVERE WEATHER REPORTS: Only the most significant events are listed. Tornadoes of F2 or greater strength (on the 0-5 Fujita scale), hail of two inches diameter or greater, and wind speeds of 70 miles per hour or above are listed. National Weather Service defines storms as severe when they produce a tornado, hail of three-quarters inch or greater, or wind speeds above 57 miles per hour (50 knots). For additional reports, contact the Oklahoma Climatological Survey, Storm Prediction Center, or your local National Weather Service forecast office.

SOIL MOISTURE: The soil moisture variable displayed is the Fractional Water Index (FWI), measured at a depth of 25 cm. This unitless value ranges from very dry soil having a value of 0, to saturated soils having a value of 1.

ADDITIONAL RESOURCES

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

SEVERE STORM REPORTS
Storm Prediction Center: http://spc.noaa.gov/climo/

National Climatic Data Center (more than about 4-5 months old):
http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwEvent~Storms

SEASONAL OUTLOOKS
Climate Prediction Center:
http://www.cpc.ncep.noaa.gov/products/OUTLOOKS_index.html

CLIMATE CALENDARS AND OTHER LOCAL WEATHER AND CLIMATE INFORMATION
Oklahoma Climatological Survey:
http://climate.mesonet.org or http://climate.ok.gov/

OKLAHOMA CLIMATOLOGICAL SURVEY

Oklahoma Climatological Survey is the State Climate Office for Oklahoma

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