

Mother Nature managed to save some of the worst of 2015's weather for last, ending the year with a powerful winter storm that, while significant for western Oklahoma, was historic for the eastern half of the state. The Dec. 26-28 event prompted blizzard, ice storm and winter storm warnings for western Oklahoma while the eastern half was awash in flood-related emergencies. High winds accompanied the storm throughout its stay. The Oklahoma Mesonet recorded 984 wind gusts of at least 50 mph from 10 p.m. on Dec. 26 through 4:15 a.m. on Dec. 28. Those high winds, gusting to more than 70

There were two confirmed tornadoes earlier in the month on Dec. 12 in southeastern Oklahoma. One of those tornadoes, an EF2 that touched down near Valliant in McCurtain County, injured three. A total of 109 tornadoes were reported in Oklahoma during 2015 according to preliminary NWS statistics. That's the third highest annual total since accurate records began in 1950. Two deaths and 55 injured were attributed to tornadoes during 2015.

December 2015 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	80°F	Arnett, Waurika	11
Low Temperature	0°F	Kenton	17
High Precipitation	16.68 in.	Mt. Herman	--
Low Precipitation	0.58 in.	Kenton	--

mph at times, combined with freezing rain and ice to leave more than 200,000 without power. The Oklahoma Dept. of Emergency Management (OEM) reported a preliminary count of five people having died as a result of the severe weather, with an additional 104 storm-related injuries. The Oklahoma Highway Patrol (OHP) reported 955 weather-related collisions, including 137 injury collisions, according to OEM. The OHP provided 39 motorist assists, including water rescues. The Stranded Motorist Assistance Recovery Teams assisted approximately 170 motorists from Dec. 26-29. Flooding was the main concern across eastern Oklahoma where 6-12 inches fell over the three day period. Numerous roads were closed due to flooding, and floodwaters from dams in northeast Oklahoma led to evacuation warnings. Widespread catastrophic damage was reported along the Illinois River basin as the river reached record flood levels. The river crested at 30.69 feet near Tahlequah on Dec. 28, besting the previous record from that location of 27.94 feet on May 10, 1950. The storm was not without other modes of hazardous weather. Numerous tornado warnings were issued in central and eastern Oklahoma on the 26th, and several instances of large hail were also reported. Preliminary reports indicate possible twister touchdowns just to the southeast of the Oklahoma City metro area, yet to be confirmed by the National Weather Service (NWS).

December 2015 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2015)
Month (December)	44.5°F	5.6°F	4th Warmest
Year-to-Date (Jan-Dec)	61.0°F	-1.1°F	17th Warmest

Precipitation

	Total	Depart.	Rank (1895-2015)
Month (December)	5.92 in.	3.86 in.	1st Wettest
Year-to-Date (Jan-Dec)	53.88 in.	17.38 in.	1st Wettest

Depart. = departure from 30-year normal

December ended as the wettest on record for the state according to preliminary statistics from the Oklahoma Mesonet. The statewide average precipitation for the month was 5.92 inches, 3.86 inches above normal. The previous record of 4.87 inches was set back in 1984. Those records date back to 1895. The southeastern and east central climate divisions had astounding averages of 13.01 inches and 12.39 inches, respectively, both more than 9 inches above normal and obviously the wettest on record for those regions. Mt. Herman led the Mesonet with 16.68 inches for the month, and 30 of the Mesonet's 120 stations recorded at least 10 inches of rainfall. The highest total ever recorded during December was 18.13 inches from the NWS cooperative observing site at Bear Mountain Tower back in 1971. Mt. Herman's total ranks as the fifth highest December total on record for the state. The far western Panhandle stations of Kenton and Boise City were the only locations to record less than an inch of precipitation with the former having the lowest total at 0.58 inches. Boise City reported 8 inches of snow for the month to bring their seasonal total to 16 inches, the highest in the state.

The second wettest November and wettest December on record gave 2015 a final push past the previous wettest calendar year by half a foot with a preliminary statewide average of 53.88 inches. The record prior to 2015 was held by 1957 at 47.88 inches. The new record obviously came with some equally monumental localized totals. The NWS cooperative observing station at Daisy in Atoka County blasted past the previous record for wettest calendar year at any location in the state with 89.69 inches, topping Tuskahoma's 88.27 inches in 1990. The Mesonet site at Stigler tied that previous record as well. In all, 12 Mesonet stations and five NWS cooperative sites topped 80 inches for the year according to preliminary data. Not surprisingly, Kenton brought up the rear with a total of 21.45 inches, but that is still more than 6 inches above normal. May captured the record for wettest month in Oklahoma history with a statewide average of 14.44 inches, topping October 1941's 10.75 inches.

December ended much warmer than normal despite the late-month cool down. According to preliminary data from the Oklahoma Mesonet, the statewide average temperature was 44.5 degrees, 5.6 degrees above normal to rank as the fourth warmest on record. Arnett and Waurika led the state with readings of 80 degrees on December 11, although high temperatures of at least 60 degrees occurred in the state on 23 of the month's 31 days. Highs reached at least 70 degrees on 14 days. Several sites across eastern Oklahoma had a low temperature of 66 degrees on the 12th, which is about 15 degrees above the normal high temperature for that date. Idabel led the state with a monthly average temperature of 50.9 degrees, while Kenton had the lowest at 34.2 degrees. The year finished quite warm with a statewide average of 61 degrees, 1.1 degrees above normal. That ranks the year as the 17th warmest on record. The Buffalo and Freedom Mesonet sites reached 108 degrees to earn the year's highest readings. The lowest temperature of minus 6 degrees was recorded at Boise City back on January 4. The Okmulgee Mesonet site recorded a heat index of 118 degrees to earn top prize in that category.

Oklahoma started 2015 with 59 percent of the state in drought according to the U.S. Drought Monitor, and peaked in early April at 68 percent. At that point, nearly 40 percent of Oklahoma was considered in at least extreme drought. The Drought Monitor's intensity scale slides from moderate-severe-extreme-exceptional, with exceptional being the worst classification. Drought was completely eradicated by early June, but a dry second half of the summer brought flash drought back into Oklahoma by early August, peaking once again in mid-October with 36 percent of the state back in drought. The dry conditions were once again eradicated by the heavy rains of November and December.

DECEMBER 2015 DAILY SUMMARIES

DECEMBER 1-5: Despite freezing fog in portions of the state and isolated rain (up to .75 inches in Watonga) in the northwest, skies were relatively sunny and clear. The highest maximum temperatures increased from the mid-50s to the low 60s. The lowest maximum temperatures increased from 47 degrees in the far southeast and panhandle to 54 degrees in west central and north central OK. The highest minimums were between 35 and 40 degrees and the lowest minimums climbed from 14 degrees in Kenton on the 1st to 23 degrees in Wister on the 5th. There was a short stint of increased low minimum temperatures on the 2nd when the panhandle Mesonet sites only dropped as low as 24 degrees. Daily average wind speeds were less than 12 mph on the 1st, less than 11 mph on the 2nd, less than 8 mph on the 3rd, less than 18 mph on the 4th, and less than 17 mph on the 5th.

DECEMBER 6-11: A dry cold front moved through the state on the 6th, however, it wasn't very evident in the top ranking maximum and minimum Mesonet temperatures. The warmest temperatures in the state increased from 65 degrees in the southeast to 80 degrees at Waurika and Arnett during this six day stretch. Likewise, the lowest maximum temperatures climbed from 54 degrees in Boise City on the 6th to 63 degrees in Weatherford on the 11th. The highest minimum temperatures warmed from 41 degrees to 55 degrees and the lowest minimum temperatures warmed from 22 to 33 degrees. A daily high temperature record was broken in Oklahoma City on the 9th with 74 degrees; McAlester tied its daily high temperature record on the 10th with 70 degrees and broke it on the 11th with 73 degrees. Rainfall was negligible. The highest daily average wind speeds throughout Oklahoma were 12-14 mph.

DECEMBER 12-14: Showers and thunderstorms moved into eastern and northwestern Oklahoma which caused temperatures to drop as they continued through the region. Some storms were so severe that an EF-2 tornado was reported in McCurtain County on the 12th. The passing storms also caused flooding in McCurtain County on the 12th and in Rogers, Sequoyah, and McCurtain County again on the 13th. Winter precipitation fell in the panhandle with some areas receiving over 3 inches of snow. In fact, Boise City reported a snow storm total of 9.5 inches on the 13th. The top reporting Mesonet sites for liquid precipitation each day were Mt. Herman on the 12th (2.84 in.), Broken Bow on the 13th (4.06 in.), and Slapout on the 14th (.48 in.). The highest maximum temperatures were 75 degrees in Talihina and Wister on the 12th, 70 degrees in Wilburton, Clayton, Burneyville, and Madill on the 13th, and a cooler 66 degrees in Burneyville on the 14th. The lowest maximum temperatures were between 33 and 40 degrees. The highest low temperatures decreased from 66 degrees in the southeast on the 12th to 45 degrees in Idabel on the 14th. The lowest minimum temperatures were well below freezing at 28 degrees in Goodwell on the 12th, 21 degrees

in Boise City on the 13th, and 11 degrees in Kenton on the 14th. More daily records were broken during this period as Oklahoma City broke its daily warmest low temperature record on the 12th with 59 degrees. Tulsa and McAlester tied their daily high temperature record that same day with 73 degrees and 74 degrees, respectively. The highest daily average wind speeds were 17 mph in Weatherford (Dec. 12), 25 mph in Boise City (Dec. 13), and 13 mph in Boise City and Fittstown (Dec. 14). The highest wind gusts were 41 mph in Erick on Saturday, 53 mph in Boise City on Sunday, and 45 mph in Westville on Monday.

DECEMBER 15-18: A cold front pushed into the region on the 15th bringing scattered showers along and ahead of it. Although modest, the top three rainfall accumulations that day were .22 inches in Broken Bow, .21 inches in Wister, and .20 inches in Idabel. Precipitation was negligible for the most part; however, light snow and rain did fall throughout the state on the 17th. The highest maximum temperatures plummeted from 70 degrees in Idabel on the 15th to 52 degrees in Idabel and Broken Bow on the 18th. The lowest maximum temperatures were in the panhandle and ranged between 28 degrees and 36 degrees. The highest minimum temperature was 51 degrees on the 15th before falling into the 30s the following three days. The lowest minimum temperatures were 13 degrees in Boise City and Kenton on the 15th, 5 degrees in Kenton on the 16th, 0 degrees in Kenton on the 17th, and 3 degrees again in Kenton on the 18th. Some peak wind gusts measured in the 40s on the 15th and 17th. The highest daily average wind speeds decreased from 18 mph in Goodwell on the 15th to 15 mph in May Ranch on the 16th and 12 mph in Minco and Cheyenne on the 17th and 18th, respectively.

DECEMBER 19-22: Before an eastward moving cold front on the 21st was able to make its mark, temperature trends were on the climb. The warmest maximum temperatures increased from 63 degrees in Hollis and Waurika to 76 degrees in Waurika from the 19th-20th. The coolest maximum temperatures were primarily in the upper 40s. The warmest minimum temperature increased from 37 degrees on the 19th to 51 degrees on the 20th before the cold front dropped them back down to 45 degrees on the 21st and 40 degrees on the 22nd. Similarly, the lowest minimum temperatures increased from 12 degrees to 32 degrees from the 19th-20th before dropping back down to 25 degrees the following two days. Despite the decline in temperatures the latter half of this period, McAlester tied its daily high temperature record on the 22nd with 71 degrees. Based on the Mesonet rain gauge readings, rainfall was negligible. Daily average wind speeds were less than 20 mph on the 19th, less than 23 mph on the 20th, less than 10 mph on the 21st, and less than 18 mph on the 22nd.

DECEMBER 23-25: A cold front pushed into northwest OK on the 23rd, followed by another cold front on the 24th. The highest maximum temperatures averaged in the mid-70s in

the southeast and the lowest maximum temperatures were in the 40s in the northwest and panhandle. McAlester broke its daily high temperature record yet again on the 25th with a high of 72 degrees. The highest minimum temperatures were in the mid-upper 40s in the southeast and the lowest minimum temperatures were in the panhandle, ranging between 18 and 27 degrees. Precipitation fell on the 23rd, leaving behind as much as .88 inches in Valliant. The 24th and 25th were rain-free. The highest daily average wind speeds were 15 mph in Talala and Hectorville on the 23rd, 12 mph in Minco, Medicine Park, and Weatherford on the 24th, and 17 mph in Boise City on the 25th.

DECEMBER 26-30: This five day period was full of record breaking rainfall, numerous flooding reports, severe weather, and winter storms as a strong upper level storm system moved in from the west. Preliminary reports recounted a weak tornado in McClain County on the 26th as well as hail in the surrounding region. A mix of wintry precipitation ranging from snow, to sleet, to freezing rain and ice occurred primarily in the northwest half of the state while the southeast half witnessed liquid precipitation. As much as one inch of freezing rain was reported by media in Yukon on the 27th. According to the Tulsa National Weather Service, 1.5 inches of snow fell in Owasso on the 28th and 1.5 inches of mixed snow and sleet fell in Sapulpa. At least an inch of sleet fell in some areas in the northeast that same day. The top two precipitation amounts on the 28th from the Tulsa Weather Service's local storm reports were Checotah with 10 inches and Wilburton with 8.28 inches. The highest liquid precipitation values measured by the Mesonet each day were 6.22 inches in Tahlequah on the 26th, 9.70 inches in Talihina on the 27th, 1.6 inches in Ada on the 28th, .33 inches in Tipton on the 29th, and .41 inches in Pauls Valley on the 30th.

Multiple daily maximum rainfall records were broken which included Oklahoma City (1.6 in.), Tulsa (2.92 in.), and McAlester (2.98 in.) on the 26th, and Tulsa (2.76 in.) and McAlester (4.68 in.) on the 27th. Counties that reported flooding during this period were Cleveland, Cherokee, Muskogee, and Wagoner County on the 26th; Cherokee, Delaware, Haskell, Latimer, Le Flore, Mayes, McCurtain, Muskogee, Nowata, Okfuskee, Okmulgee, Ottawa, Pittsburg, Pushmataha, Tulsa, and Wagoner County on the 27th; Cherokee, Haskell, Latimer, Le Flore, Mayes, Muskogee, Nowata, Okfuskee, Ottawa, Pittsburg, Pushmataha, Sequoyah, Tulsa, and Wagoner County on the 28th; Le Flore, Mayes, Muskogee, Ottawa, Pushmataha, and Sequoyah County on the 29th; and Cherokee, Choctaw, Haskell, Le Flore, Mayes, Nowata, Okmulgee, Ottawa, and Sequoyah County on the 30th.

The highest maximum temperatures occurred in the southeast and decreased from 77 degrees on the 26th to 42 degrees on the 29th. On the 30th, the highest maximum temperature increased to 53 degrees in Broken Bow.

Following a similar trend, the lowest maximum temperatures dropped from 36 degrees in Boise City and Kenton on the 26th to 25 degrees in Boise City on the 29th. The lowest high on the 30th was 31 degrees in Alva. The highest minimum temperatures decreased from 58 degrees to 34 degrees and the lowest minimum temperatures decreased from 20 degrees in Kenton and Boise City to 8 degrees in Kenton during this period. Mesonet peak wind gusts were as high as 76 mph on the 26th (Mangum), 71 mph on the 27th (Medicine Park), and 57 mph on the 28th (Ringling). Wind gusts were much calmer the following two days. Daily wind speeds were breezy from the 26th-30th, averaging less than 29 mph on Saturday, 35 mph on Sunday, and 18 mph on Monday. The highest daily average wind speeds, much like the gusts, were calmer on the 29th and 30th at 9 mph and 6 mph, respectively.

DECEMBER 31: By the time New Year's Eve came around, there were no more additional flood reports and the highest liquid precipitation amount measured was only .47 inches at the Altus Mesonet site. Highs were between 28 degrees in Boise City and Kenton and 51 degrees in Valliant. Minimum temperatures ranged from 11 degrees in Kenton to 34 degrees in Altus. Average wind speeds were less than 9 mph.

DECEMBER 2015 SEVERE WEATHER

Flooding

Location	County	Day
Glover	McCurtain	12
3 SE Inola	Rogers	13
1 NE Vian	Sequoyah	13
8 SE Idabel	McCurtain	13
Norman	Cleveland	26
Okay	Wagoner	26
3 S Hulbert	Cherokee	26
3 N Tahlequah	Cherokee	26
Muskogee	Muskogee	26
4 S Bixby	Tulsa	27
Tahlequah	Cherokee	27
2 SE Sperry	Tulsa	27
1 E Skiatook	Tulsa	27
1 SE Skiatook	Tulsa	27
3 W Hulbert	Cherokee	27
7 NE Tahlequah	Cherokee	27
2 NE Eldon	Cherokee	27
3 NW Jay	Delaware	27
3 E Kinta	Haskell	27
8 SE Hartshorne	Latimer	27
SW Spavinaw	Mayes	27
E Morris	Okmulgee	27
Grayson	Okmulgee	27
N Beggs	Okmulgee	27
4 E Arpellar	Pittsburg	27
5 W McAlester	Pittsburg	27
7 NE Blanco	Pittsburg	27
4 E Nashoba	Pushmataha	27
6 E Tuskahoma	Pushmataha	27
3 S Wagoner	Wagoner	27
1 S Fort Gibson	Muskogee	27
Muskogee	Muskogee	27
4 S Red Oak	Latimer	27
5 SE Wister	Le Flore	27
3 E Lenapah	Nowata	27
4 SW Okemah	Okfuskee	27
1 SW Miami	Ottawa	27
5 E Broken Bow	McCurtain	27
Red Oak	Latimer	28
Higgins	Latimer	28

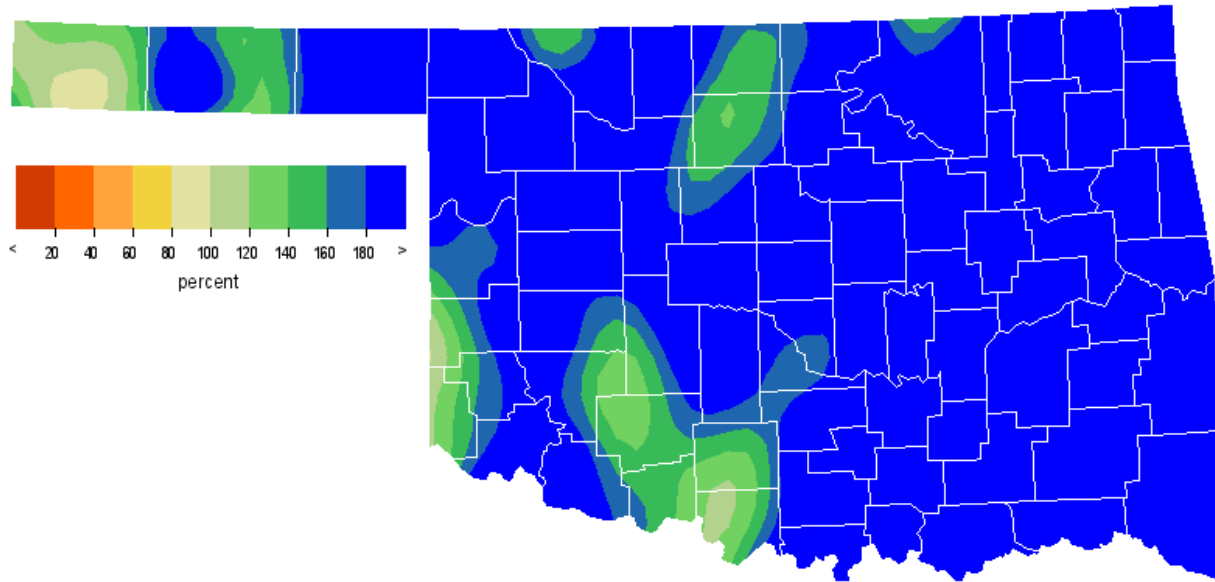
Flooding (cont.)

Location	County	Day
Kinta	Haskell	28
Tahlequah	Cherokee	28
Hulbert	Cherokee	28
Tulsa	Tulsa	28
Warner	Muskogee	28
Spavinaw	Mayes	28
Wister	Le Flore	28
Tuskahoma	Pushmataha	28
Arpellar	Pittsburg	28
Haileyville	Pittsburg	28
McAlester	Pittsburg	28
Miami	Ottawa	28
Bearden	Okfuskee	28
Wann	Nowata	28
Wagoner	Wagoner	28
Short	Sequoyah	28
Gans	Sequoyah	28
Arkoma	Le Flore	29
Langley	Mayes	29
Warner	Muskogee	29
Webbers Falls	Muskogee	29
Miami	Ottawa	29
Stanley	Pushmataha	29
Moffett	Sequoyah	29
3 SW Hulbert	Cherokee	30
2 N Fort Gibson	Cherokee	30
3 W Soper	Choctaw	30
4 N Quinton	Haskell	30
Braden	Le Flore	30
3 SE Wister	Le Flore	30
Spavinaw	Mayes	30
4 E Lenapah	Nowata	30
4 E Morris	Okmulgee	30
Miami	Ottawa	30
2 N Moffett	Sequoyah	30

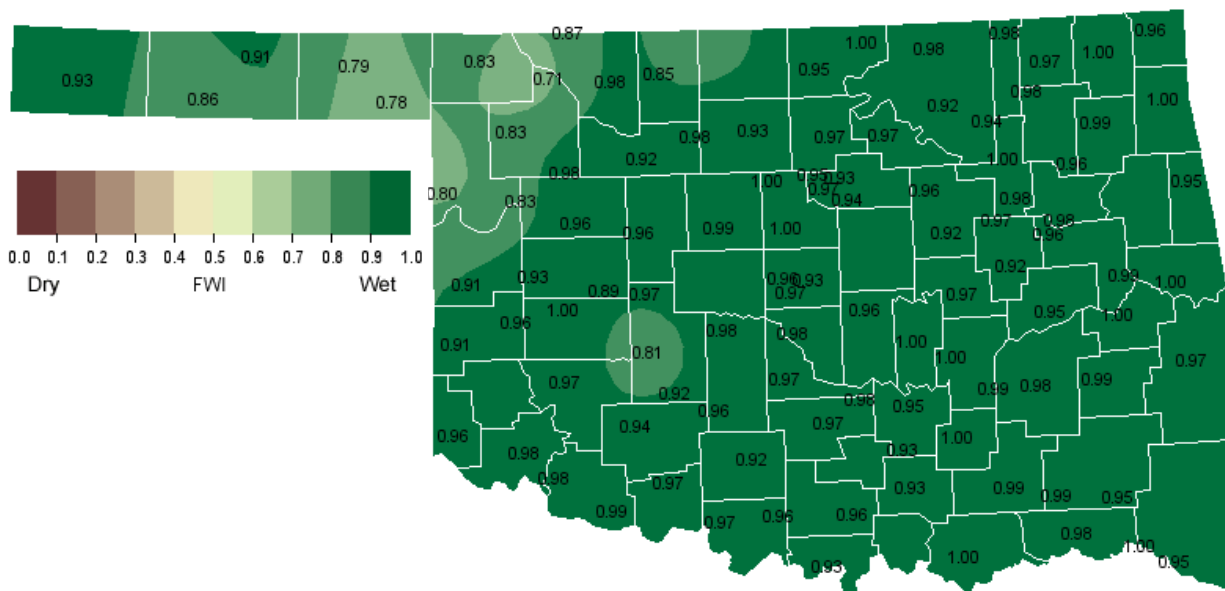
Significant Tornadoes (EF2 or greater)

EF-rating	County	Day
EF2	McCurtain	12

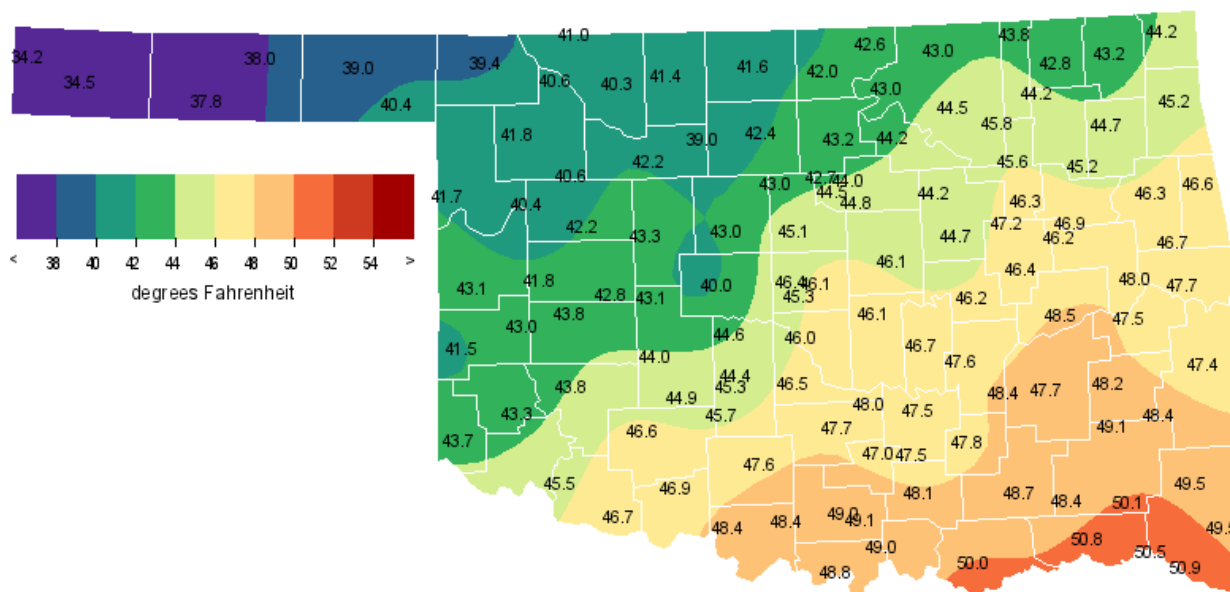
DECEMBER 2015 PERCENT OF NORMAL PRECIPITATION



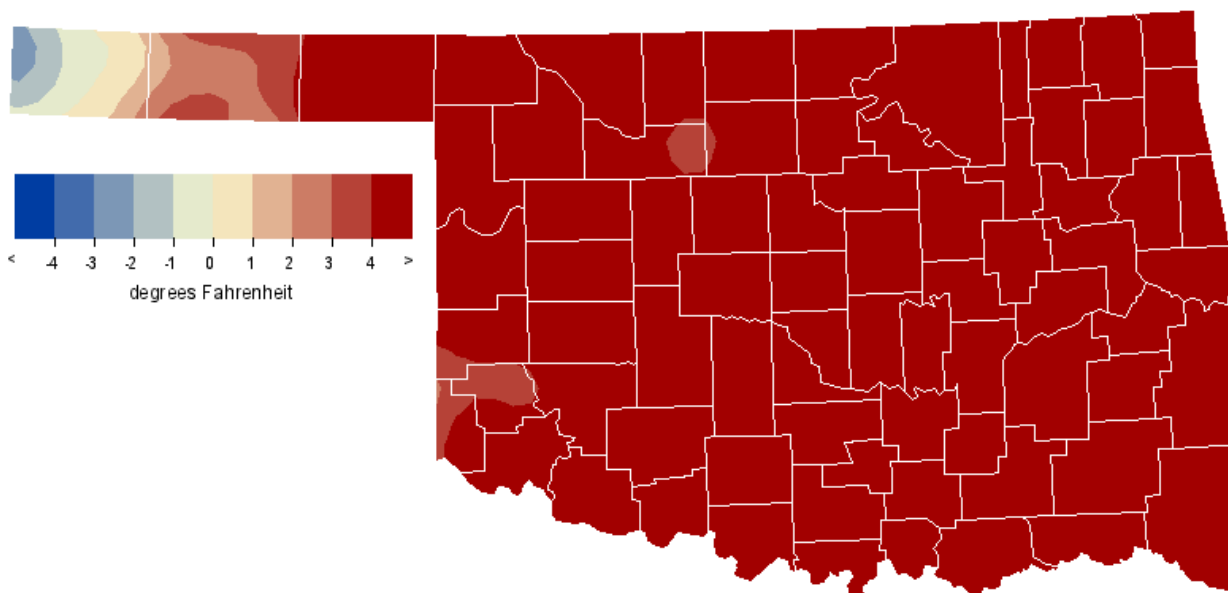
DECEMBER 2015 AVERAGE SOIL MOISTURE AT 25CM



DECEMBER 2015 AVERAGE TEMPERATURE



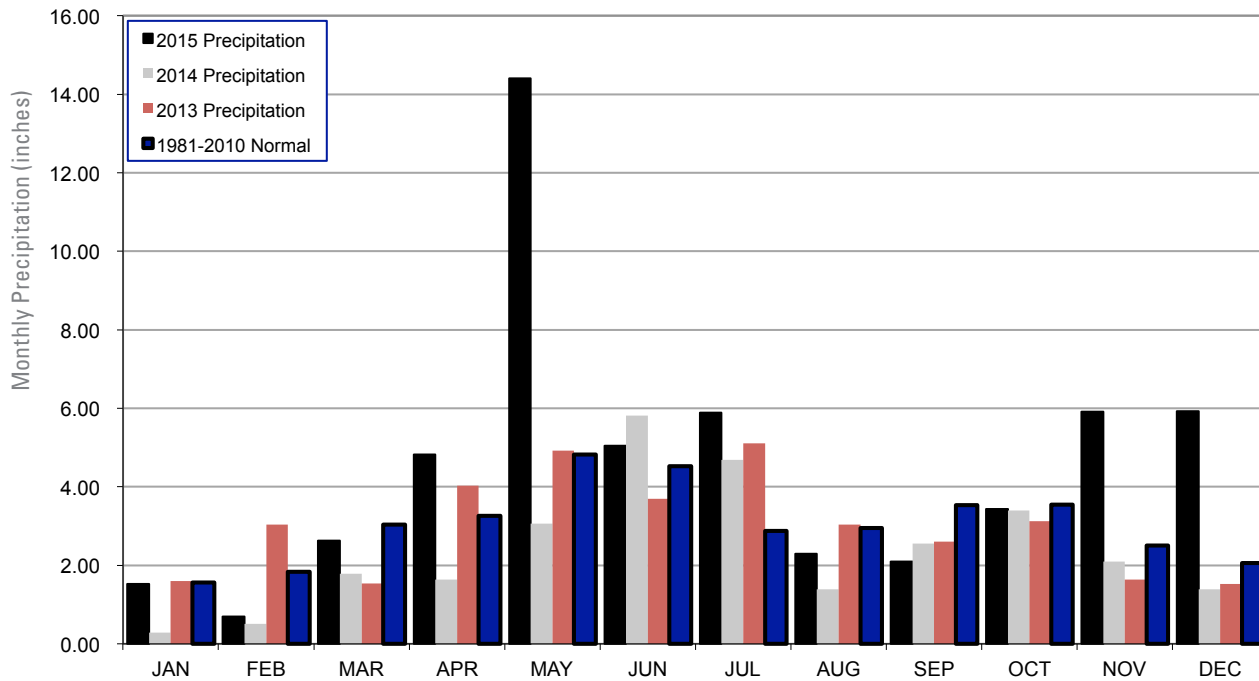
DECEMBER 2015 DEPARTURE FROM NORMAL TEMPERATURE



MESONET MONTHLY SUMMARY FOR DECEMBER 2015

NAME	MEAN TEMP	HIGH TEMP	LOW TEMP	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY	NAME	MEAN TEMP	HIGH TEMP	LOW TEMP	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY		
PANHANDLE																					
Arnett	41.6	80	11	16	29	725	0	2.23	.75	13	Goodwell	37.8	73	11	13	30	843	0	1.07	.41	14
Beaver	39.0	78	11	13	18	806	0	1.79	.71	13	Hooker	38.0	73	11	14	18	838	0	1.10	.29	13
Boise City	34.5	70	9	7	18	947	0	.66	.34	14	Kenton	34.2	71	9	0	17	954	0	.58	.35	14
Buffalo	39.4	74	9	12	18	792	0	2.97	1.29	13	Slapout	40.4	74	11	15	29	761	0	2.42	.91	13
NORTH CENTRAL																					
Alva	40.4	75	11	14	29	763	0	2.51	.91	13	May Ranch	40.9	75	9	16	18	746	0	1.40	1.01	13
Blackwell	42.0	71	12	17	18	714	0	2.63	1.17	13	Medford	41.6	70	12	17	18	726	0	2.24	1.13	26
Breckinridge	42.4	71	11	18	18	700	0	2.10	.89	13	Newkirk	42.7	71	11	16	18	692	0	3.10	1.84	13
Cherokee	41.4	73	9	18	29	731	0	3.54	1.41	26	Red Rock	43.2	74	11	17	29	676	0	3.75	2.11	13
Fairview	42.1	72	9	18	29	709	0	2.98	1.49	26	Seiling	40.6	72	9	6	29	755	0	3.39	1.08	13
Freedom	40.5	73	9	14	29	758	0	1.86	.82	13	Woodward	41.8	74	9	13	29	719	0	3.00	.95	13
Lahoma	41.6	69	11	20	29	****	****	2.08	1.02	26											
NORTHEAST																					
Bixby	46.3	73	11	25	17	582	1	10.88	4.55	26	Pawnee	44.3	74	11	19	29	643	0	4.00	1.42	26
Burbank	43.0	74	11	17	18	681	0	3.76	1.96	13	Porter	46.9	73	12	24	18	562	1	12.80	4.30	27
Copan	43.8	72	11	20	18	658	0	4.86	1.73	26	Pryor	44.6	73	12	22	18	636	3	12.04	4.82	26
Foraker	43.0	72	11	18	18	682	0	2.84	1.13	26	Skiatook	45.8	72	11	22	18	595	0	7.86	3.48	26
Inola	45.2	73	12	22	18	615	1	12.78	4.77	26	Talala	44.1	73	11	19	18	647	0	9.61	4.24	26
Jay	45.1	72	11	22	18	618	3	12.36	4.48	26	Tulsa	47.1	73	12	26	18	****	****	8.35	2.95	26
Miami	44.2	73	11	22	18	645	0	10.35	4.00	26	Vinita	43.1	72	12	20	18	678	0	10.82	4.28	26
Nowata	42.9	71	12	19	18	687	0	9.03	4.05	26	Wynona	44.5	74	11	21	18	634	0	5.54	2.22	26
WEST CENTRAL																					
Bessie	43.7	71	8	18	29	660	0	2.88	.97	13	Erick	41.5	74	11	14	29	729	0	1.21	.32	12
Butler	41.8	73	8	16	29	719	0	2.35	.98	26	Putnam	42.3	71	9	18	29	704	0	3.12	1.08	26
Camargo	40.5	74	9	9	29	760	0	2.32	.78	13	Watonga	43.3	69	9	19	29	674	0	2.77	1.04	26
Cheyenne	43.1	73	11	17	29	679	0	1.93	.54	12	Weatherford	42.8	69	9	20	29	687	0	2.45	.95	26
Elk City	43.0	73	8	19	29	683	0	2.72	.99	26											
CENTRAL																					
Acme	45.7	73	9	18	18	599	1	4.57	2.37	26	Ninnekah	45.3	73	9	20	18	611	1	3.98	1.98	26
Bowlegs	46.7	73	11	22	29	568	2	7.66	3.34	26	Norman	46.0	75	9	21	29	590	1	4.26	2.55	26
Bristow	44.6	73	9	19	18	633	2	7.93	2.86	26	Oilton	44.1	72	11	18	29	648	2	5.75	2.66	26
Lake Carl Blac	42.7	73	11	15	29	691	0	3.51	1.74	13	OKC East	45.3	73	9	20	29	611	1	4.54	2.41	26
Chandler	46.0	74	11	21	29	589	1	5.54	2.47	26	OKC North	46.4	73	9	21	29	576	1	4.27	1.84	26
Chickasha	44.5	71	9	21	18	636	0	4.62	2.32	26	Okemah	46.3	72	12	22	18	583	3	8.20	3.39	27
El Reno	42.7	73	9	14	29	691	0	2.36	1.02	26	Perkins	44.8	72	9	20	29	626	1	4.79	2.29	26
Guthrie	45.1	73	9	21	18	619	2	3.98	1.58	26	Shawnee	46.0	71	11	22	29	590	2	4.65	1.81	27
Kingfisher	43.1	72	9	18	29	680	0	3.10	1.33	13	Spencer	46.2	73	9	21	29	585	1	5.07	2.62	26
Marena	44.6	73	9	20	29	634	0	4.61	1.96	13	Stillwater	44.1	73	9	20	29	649	0	3.09	1.07	26
Minco	45.6	72	9	20	29	****	****	4.25	2.06	26	Washington	46.6	76	9	21	29	572	1	3.85	1.86	26
Marshall	43.0	72	9	16	29	681	0	2.68	1.14	13											
EAST CENTRAL																					
Cookson	46.7	72	12	22	18	570	3	13.73	6.20	27	Sallisaw	47.6	75	11	25	17	538	0	13.45	6.51	27
Eufaula	48.6	74	11	26	18	513	4	12.70	4.76	27	Stigler	47.4	74	12	25	18	550	4	13.53	6.07	27
Haskell	46.2	73	11	24	18	584	2	12.20	4.04	27	Stuart	48.3	74	26	24	29	521	4	11.46	5.00	26
Hectorville	47.3	73	11	23	18	552	2	10.54	4.17	26	Tahlequah	46.2	73	12	22	17	585	3	15.73	6.22	26
Holdenville	47.7	72	9	23	29	540	2	8.89	3.81	26	Webbers Falls	48.0	75	11	25	17	531	4	11.58	5.78	27
McAlester	47.7	73	26	23	17	541	4	11.38	5.16	27	Westville	46.6	72	12	24	18	572	2	13.81	6.02	27
Okmulgee	46.3	74	11	22	18	582	3	12.12	4.39	26											
SOUTHWEST																					
Altus	****	***	***	***	***	****	****	2.38	1.12	26	Hollis	43.7	73	11	20	18	660	0	1.38	.37	26
Apache	44.9	72	9	21	18	622	0	2.62	1.06	26	Mangum	43.3	72	10	15	29	674	0	2.27	.92	26
Fort Cobb	44.0	71	9	21	29	652	0	2.04	.89	26	Medicine Park	46.6	71	9	23	28	570	0	2.20	1.36	26
Grandfield	46.7	73	11	24	18	566	0	2.86	1.38	27	Tipton	45.5	72	10	22	18	603	0	3.75	1.76	26
Hinton	43.1	71	9	19	29	680	0	3.00	.96	26	Walters	46.8	75	11	24	29	564	0	2.70	.94	27
Hobart	43.8	69	12	21	18	658	0	2.41	1.02	26											
SOUTH CENTRAL																					
Ada	47.5	74	9	22	29	545	2	7.68	3.27	26	Lane	48.7	75	26	25	17	507	3	9.87	3.68	27
Ardmore	49.1	74	26	26	29	497	4	7.02	2.73	26	Madi1l	49.0	76	26	24	17	500	3	6.72	2.78	26
Burneyville	48.8	77	11	22	18	505	4	6.38	3.02	26	Newport	49.0	75	11	25	29	500	4	6.28	2.20	27
Byars	47.9	73	9	23	29	531	2	5.86	2.44	26	Pauls Valley	47.7	75	11	22	29	538	2	4.74	1.74	27
Centrahoma	47.7	75	26	23	17	539	3	11.90	5.66	26	Ringling	48.4	78	11	24	29	517	2	3.17	1.10	27
Durant	50.0	77	26	26	18	468	4	7.37	3.17	27	Sulphur	47.0	73	9	21	17	561	3	7.66	3.06	26
Fittstown	47.4	72	9	22	18	547	3	5.84	2.01	26	Tishomingo	48.1	72	9	24	29	526	3	7.02	2.81	26
Ketchum Ranch	47.6	75	11	22	29	542	2	2.82	1.08	26	Waurika	48.4	80	11	22	29	517	2	2.54	1.02	27
SOUTHEAST																					
Antlers	48.4	76	26	23	17	515	0	10.11	5.24	27	Mt Herman	49.5	72	26	26	17	483	3	16.68	8.83	27
Broken Bow	49.6	75	26	26	19	478	0	14.48	6.59	27	Talihina	48.5	75	26	23	31	518	6	15.16	9.70	27
Clayton	49.1	75	26	24	17	498	5	13.36	7.39	27	Valliant	50.5	77	11	27	17	455	6	11.49	5.08	27
Cloudy	50.1	75	26	27	19	464	3	11.74	6.14	27	Wilburton	48.2	74	12	24	31	527	5	14.98	6.85	27
Hugo	50.8	77	26	29	17	444	4	9.67	4.70	27	Wister	47.5	76	26	23	5	549	6	12.29	7.67	27
Idabel	50.9	77	26	28	19	444	7	13.16	7.82	27											

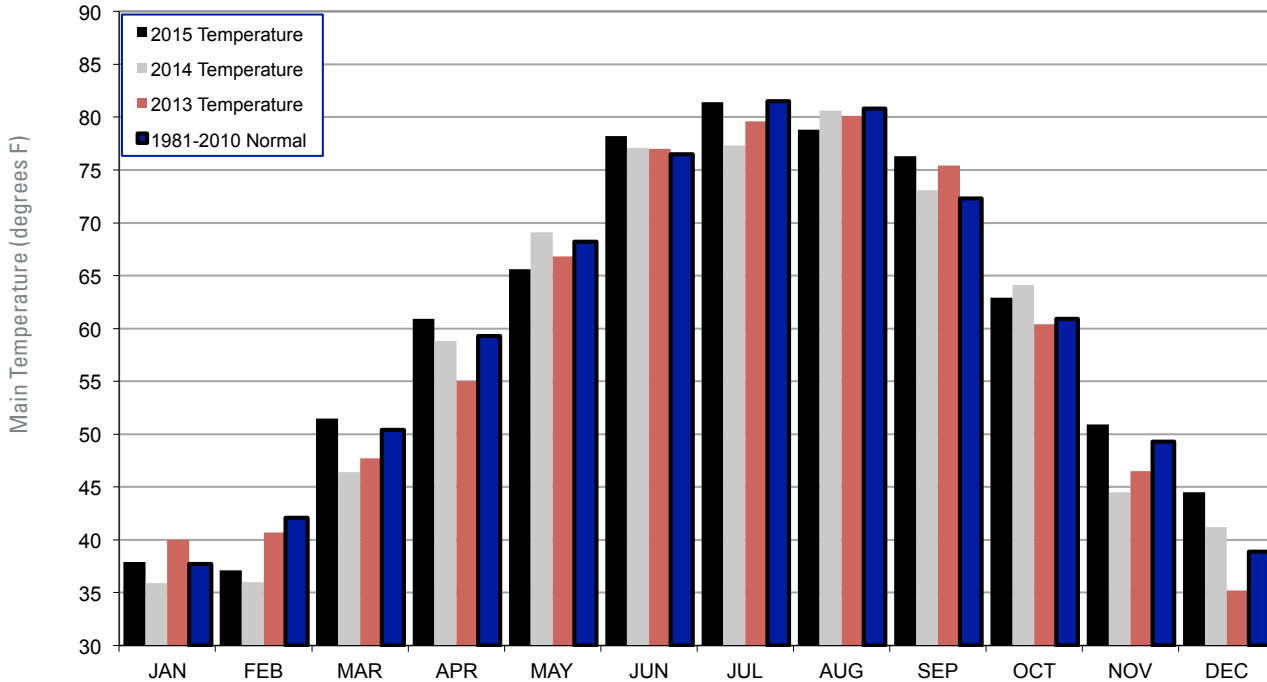
2013, 2014 AND 2015 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



December 2015 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Dec-14
Panhandle	1.60	0.86	12th Wettest	3.28 (2006)	0.00 (1976)	0.73
North Central	2.66	1.37	12th Wettest	3.59 (1984)	0.01 (1950)	0.83
Northeast	8.62	6.27	1st Wettest	7.61 (1895)	0.14 (1950)	1.62
West Central	2.42	1.23	12th Wettest	4.04 (1911)	0.00 (1908)	0.44
Central	4.63	2.63	4th Wettest	6.45 (1984)	0.03 (1908)	1.07
East Central	12.39	9.30	1st Wettest	8.23 (1987)	0.20 (1917)	2.79
Southwest	2.51	1.10	14th Wettest	5.65 (1911)	0.00 (1908)	0.46
South Central	6.43	3.80	3rd Wettest	6.97 (1991)	0.06 (1917)	1.85
Southeast	13.01	9.01	1st Wettest	12.15 (1971)	0.19 (1917)	3.36
Statewide	5.92	3.86	1st Wettest	4.87 (1984)	0.09 (1950)	1.44

2013, 2014 AND 2015 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



December 2015 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Dec-14 (F)
Panhandle	38.1	3.1	23rd Warmest	42.1 (1933)	22.6 (1983)	37.4
North Central	41.4	5.3	5th Warmest	42.9 (1965)	21.5 (1983)	39.3
Northeast	44.5	6.7	3rd Warmest	44.9 (1965)	23.6 (1983)	41.0
West Central	42.4	4.8	4th Warmest	44.1 (1965)	24.1 (1983)	40.3
Central	44.8	5.5	4th Warmest	46.0 (1965)	25.5 (1983)	42.3
East Central	47.3	6.8	3rd Warmest	48.1 (1933)	27.6 (1983)	43.5
Southwest	44.9	4.6	4th Warmest	46.6 (1965)	27.4 (1983)	43.1
South Central	48.3	6.2	3rd Warmest	48.4 (1933)	29.4 (1983)	45.2
Southeast	49.3	7.4	2nd Warmest	49.7 (1984)	30.4 (1983)	44.5
Statewide	44.5	5.6	4th Warmest	45.1 (1965)	25.7 (1983)	41.8

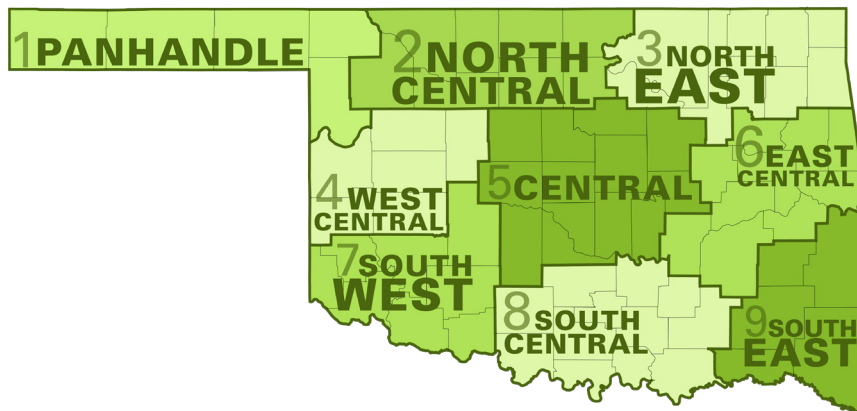
RECORD EVENT REPORTS DECEMBER 2015

Description	Day	Location	Record	Previous Record	Year
Daily high temperature	9	Oklahoma City	74	73	1915
Daily high temperature	10	McAlester	70	70	1984
Daily high temperature	11	McAlester	73	72	1965
Daily warmest low temperature	12	Oklahoma City	59	47	2014
Daily high temperature	12	Tulsa	73	73	1924
Daily high temperature	12	McAlester	74	74	1991
Daily high temperature	22	McAlester	71	71	1982
Daily high temperature	25	McAlester	72	69	1960
Daily maximum rainfall	26	Oklahoma City	1.6	1.18	1940
Daily maximum rainfall	26	Tulsa	2.92	0.97	1987
Daily maximum rainfall	26	McAlester	2.98	0.95	1987
Daily maximum rainfall	27	Tulsa	2.76	1.62	1943
Daily maximum rainfall	27	McAlester	4.68	2.65	1968

MESONET EXTREMES FOR DECEMBER 2015

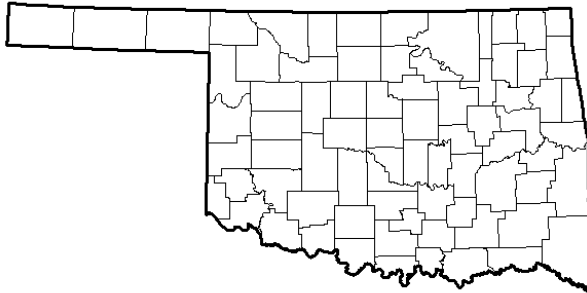
Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	80	11th	Arnett	0	17th	Kenton	2.97	Buffalo	1.29	13th	Buffalo
North Central	75	11th	Alva	6	29th	Seiling	3.75	Red Rock	2.11	13th	Red Rock
Northeast	74	11th	Pawnee	17	18th	Burbank	12.80	Porter	4.82	26th	Pryor
West Central	74	11th	Erick	9	29th	Camargo	3.12	Putnam	1.08	26th	Putnam
Central	76	9th	Washington	15	29th	Lake Carl Blackwell	8.20	Okemah	3.39	27th	Okemah
East Central	75	11th	Webbers Falls	22	18th	Okmulgee	15.73	Tahlequah	6.51	27th	Sallisaw
Southwest	75	11th	Walters	15	29th	Mangum	3.75	Tipton	1.76	26th	Tipton
South Central	80	11th	Waurika	21	17th	Sulphur	11.90	Centrahoma	5.66	26th	Centrahoma
Southeast	77	11th	Valliant	23	17th	Antlers	16.68	Mt Herman	9.70	27th	Talihina
Statewide	80	11th	Waurika	0	17th	Kenton	16.68	Mt Herman	9.70	27th	Talihina

Oklahoma Climate Divisions



DECEMBER 2015 DROUGHT MONITOR

U.S. Drought Monitor Oklahoma



December 29, 2015

(Released Thursday, Dec. 31, 2015)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	100.00	0.00	0.00	0.00	0.00	0.00
Last Week <i>12/22/2015</i>	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago <i>9/29/2015</i>	52.60	47.40	16.79	6.37	0.97	0.00
Start of Calendar Year <i>1/29/2014</i>	25.63	74.37	62.03	40.84	21.74	5.70
Start of Water Year <i>9/29/2015</i>	52.60	47.40	16.79	6.37	0.97	0.00
One Year Ago <i>12/29/2014</i>	25.63	74.37	62.03	40.84	21.74	5.70

Intensity:

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

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

Author:
Chris Fenimore
NOAA/NESDIS/NCEI



<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 differs 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.

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/wwwcgi.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 is the State Climate Office for Oklahoma

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