Oklahoma Monthly Climate Summary

AUGUST 2015

OKLAHOMA CLIMATOLOGICAL SURVEY

Many a rainy summer has stared into the unyielding gaze of August and faltered. Coming off the wettest May-July period on record for Oklahoma, this August was met with similar expectations. In that regard, however, it was an unmitigated failure with preliminary data from the Oklahoma Mesonet indicating a statewide average of 2.3 inches. That is more than half an inch below normal and ranks the month as the 46th driest August on record, dating back to 1895. The northeast saw a surplus of more than 1.7 inches to rank as the 24th wettest August for that area. South central Oklahoma, the epicenter of the extreme rains from the previous few months, dried out considerably with a deficit of more than 2.1 inches and ranked as the seventh driest. Miami led the state with 8.51 inches of rain, which is more than 5 inches above normal for that location. Madill, in far south central Oklahoma, barely wet the gauge with 0.04 inches. That is a stark contrast to the 43.71 inches of rain Madill received April-July, including 23.25 inches in May alone.

August's rain totals might have diminished the climatological summer's (June-August) ranking, but the season still finished as the 28th wettest on record with a statewide average of 12.13 inches, 1.78 inches above normal. Much of that wetter than normal weather was concentrated from south central through northeast Oklahoma. The southeast and southwest were drier than normal. The year still leads 1957 in the race to finish as the wettest on record for Oklahoma. The 2015 January-August statewide average was 36.19 inches, 11.33 inches above normal and 0.32 inches ahead of 1957's mark. That leaves 2015 just 11.69 inches off 1957's calendar year record total of 47.88 inches. The final four months of the year average 12.07 inches of precipitation, so even a slightly below normal finish to the year can still garner 2015 the record.

The outlooks called for a cooler than normal August, and those prognostications were prophetic with a statewide average of 78.8 degrees. That's 2 degrees below normal to rank the month as the 24th coolest August on record. Of course, that's not the entire story with the temperature data, as is often the case. High temperatures ranged from a maximum of 107 degrees at Hollis on the sixth to a chilly 68 degrees at Boise City on the 23rd. The former occurred during a period of above normal temperatures and the latter following an unusually strong cold front for that part of the year. That cold front was also apparent in the minimum temperatures readings. El Reno got down to an October-like 47 degrees on the 20th, and many other Mesonet sites reached lows in the 40s or lower 50s on the 19th and 20th. Record lows were set at Oklahoma City, Muskogee, McAlester and Bartlesville on the 20th according to National Weather Service (NWS) reports. The cool weather continued for several more days with additional record lows reported through the 25th. The first week of the month was a scorcher, nevertheless. The Mesonet recorded 143 instances of heat index values of 110 degrees or more during that period, including a miserable 117 degrees at Eufaula and Okmulgee on the seventh. On the month's final day, temperatures had reached into the mid- to upper-90s across much of the western half of the state, and even a triple-digit reading at Freedom. The summer and

August 2015 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	107°F	Hollis	6
Low Temperature	47°F	El Reno	20
High Precipitation	8.51 in.	Miami	--
Low Precipitation	0.04 in.	Madill	--

August 2015 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2015)
Month (August)	78.8°F	-2.0°F	24th Coolest
Season-to-Date (Jun-Aug)	79.8∞F	0.1°F	59th Coolest
Year-to-Date (Jan-Aug)	62.0°F	-0.3°F	60th Warmest

Precipitation

	Total	Depart.	Rank (1895-2015)
Month (August)	2.30 in.	-0.65 in.	46th Driest
Season-to-Date (Jun-Aug)	11.38 in.	1.61 in.	34th Wettest
Year-to-Date (Jan-Aug)	36.19 in.	11.33 in.	1st Wettest

Depart. = departure from 30-year normal

January-August statewide average temperatures were both near normal.

With the dry conditions mounting across the southeast, flash drought conditions continued to intensify in that region. Dead and dormant vegetation, desiccated soils and flagging streamflows were some of the key indicators of the spreading hazard. By the end of August, more than 18 percent of the state was considered in at least abnormally dry conditions according to the U.S. Drought Monitor, and nearly 9 percent in moderate drought. There were no drought or abnormally dry designations in Oklahoma at the end of July.

AUGUST 2015 DAILY SUMMARIES

AUGUST 1-3: August started with a mid-level disturbance that caused showers throughout parts of southwest and central Oklahoma. While most areas only received around a tenth of an inch of rain, as much as .46 inches and .36 inches fell in Goodwell on the 1st and 2nd, respectively. Cleo Springs reported flooding on the 1st and a hefty 1.23 inches managed to fall in Altus on the 3rd. High maximum temperatures were pretty consistent, measuring 98 degrees all three days. The coolest maximum temperatures were between 82 and 86 degrees. The highest minimum temperatures were in the mid-70s and the lowest minimum temperatures were in the low 60s. Daily average wind speeds were less than 12mph.

AUGUST 4: August 4th was just a touch cooler than the previous few days. Highs were between 80 degrees in Talala, Foraker, and Nowata and 95 degrees in Durant. Lows were between 62 degrees in Kenton and Boise City and 76 degrees in Lane and Durant. Showers and thunderstorms dropped between a quarter of an inch and 1.89 inches in western Oklahoma. Average wind speeds were less than 12mph with a peak wind gust of 52mph in Hobart.

AUGUST 5-10: High temperatures and precipitation created some pretty humid conditions. The highest maximum temperatures were in the mid-100s with one heat index value reaching 110 degrees in Ringling on the 5th. Some heat index values continued to soar between 110-115 degrees on the 6th and 7th with excessive heat warnings and heat advisories in affect through portions of the state. The lowest maximum temperatures bounced around in the mid-upper 80s and low 90s. The highest minimum temperature was 81 degrees every day except the 10th when a passing frontal boundary caused some areas to cool to 79 degrees. Likewise, the coolest minimums were generally in the low-mid 60s until the 10th when Jay dropped to 58 degrees. Rain fell each day with the highest daily maximum rainfall amounts measuring 1.04 inches in Miami on the 5th, .60 inches in Wister on the 6th, .11 inches in Webbers Falls on the 7th, .51 inches in Boise City on the 8th, .10 inches in Arnett on the 9th, and .65 inches in Talala on the 10th. The highest daily average wind speeds fluctuated between 11 and 15mph.

AUGUST 11-12: Despite still lingering on the hotter side, temperatures cooled ever so slightly from a passing frontal boundary that entered the state on the 10th. The highest maximum temperatures dropped to 104 degrees in Broken Bow on the 11th and 97 degrees in Hugo on the 12th. Heat index values still made their way into the triple digits. The lowest maximum temperatures were 83 degrees in the panhandle on the 11th and 77 degrees in Freedom on the 12th. High minimum temperatures were in the mid-70s and the coolest temperatures in the state were in the upper 50s and low 60s. Showers and thunderstorms developed in the panhandle on the 11th and moved south-southeast into northwest, western, and southwest OK. Rainfall amounts were rather isolated on the 11th, ranging from less than a tenth of an inch to 1.11 inches in Beaver. Rainfall was generally less than a quarter of an inch on the 12th, however, Buffalo managed to receive .57 inches. Average wind speeds were 5-11mph on the 11th and less than 14mph on the 12th.

AUGUST 13: Despite a few sprinkles in central and northwest Oklahoma, the state took a brief hiatus from the rain. Highs ranged from 85 degrees in Jay to 100 degrees in Hooker. Lows ranged from 56 degrees in Oilton to 71 degrees in Tipton. Wind speeds averaged less than 11mph.

AUGUST 14: Showers and thunderstorms returned in full force, developing in north-central OK before moving south. The highest rainfall measurement was 1.59 inches in Ninnekah. Clouds and rain-cooled air caused the highest maximum temperatures to decrease to 97 degrees in Hooker and Talihina. The lowest maximum temperature was 82 degrees in Ketchum Ranch and Burneyville. Lows were between 60 degrees in Nowata, Pryor, and Vinita, and 74 degrees in Tipton and Altus. Average wind speeds were generally between 4 and 14mph.

AUGUST 15-16: Skies were once again rain-free. The highest maximum temperatures were in the mid-upper 90s and the lowest maximum temperatures were in the upper 80s. Minimum temperatures ranged from 57 degrees in Oilton to 72 degrees in Tipton and Altus. Average wind speeds were less than 12mph on the 15th and less than 15mph on the 16th.

AUGUST 17-18: Scattered showers and thunderstorms returned to northwest and northeast Oklahoma. The three highest Mesonet rainfall amounts recorded each day were 1.35 inches in Goodwell, .94 inches in Beaver, and .76 inches in Hooker on the 17th, and 2.96 inches in Burbank, 2.88 inches in Miami, and 1.61 inches in Copan on the 18th. Some storms became severe with one 70mph wind gust reported in Hinton on the 18th. High temperatures varied between 79

degrees and 100 degrees. Lows were between 58 degrees and 79 degrees. Daily average wind speeds were less than 12mph on the 17th and 5-16mph on the 18th.

AUGUST 19-22: Severe weather reports and record breaking temperatures and rainfall amounts were the name of the game during this period. A strong cold front caused plummeting temperatures, a lot of rainfall, and strong thunderstorms—primarily in eastern, northwest, and southern Oklahoma. While flooding was reported in Kay and Ottawa County on the 22nd, the highest rainfall amounts each day were 3.67 inches in Tulsa on the 19th, trace amounts in locations on the 20th, 1.87 inches in Alva on the 21st, and 4.07 inches in Red Rock on the 22nd. A daily maximum rainfall record was broken in Tulsa (3.02 inches) and McAlester (2.22 inches) on the 19th, and McAlester again on the 22nd (1.00 inch). The highest maximum temperatures dropped drastically to 85 degrees in Grandfield and Burneyville on the 19th, but gradually climbed back up to 101 degrees in Hooker by the 22nd. The lowest maximum temperature in the state was a cool 69 degrees in Jay before making its way back up to 80 degrees in Cookson at the end of this four-day stretch. The highest minimum temperatures increased from the low 60s to the mid-70s and the lowest minimum temperatures ranged from 47 degrees in El Reno on the 20th to 59 degrees in Kenton and Boise City on the 22nd. A daily minimum temperature record was broken by Oklahoma City with 50 degrees, Muskogee with 52 degrees, McAlester with 55 degrees, and Bartlesville with 51 degrees on the 20th. The highest average wind speeds were between 14mph and 17mph. Thunderstorm wind gusts of 78mph and 70mph were reported in Alva and Carmen on the 21st, respectively.

AUGUST 23-25: Thanks to a cold front, high maximum temperatures dropped back down into the mid-upper 90s. Low maximum temperatures, on the other hand, increased from 68 degrees in Boise City to 83 degrees in the northeast. The warmest minimum temperatures remained in the low 70s and the coolest minimum temperatures were in the low-mid 50s. Tulsa cooled to 56 degrees on the 25th which broke its daily low temperature record that was previously set in 1966 at 57 degrees. Isolated showers and thunderstorms continued primarily in the northern half of the state before teetering out as August 24th came to a close. The highest rainfall amounts in the state were 2.58 inches in Cookson on the 23rd and .19 inches in Stigler on the 24th. Muskogee broke its daily maximum rainfall record with 1.62 inches on the 23rd. Daily average wind speeds were 5-18mph on the 23rd, less than 10mph on the 24th, and less than 11mph on the 25th. The highest wind gust during this period was 48mph in Stigler on the 23rd.

August 26: The 26th was the last rain-free day of the month. Highs ranged from 85 degrees in Jay, Vinita, and Westville to 102 degrees in Freedom. Lows ranged from 54 degrees in Vinita to 72 degrees in Ardmore. Average wind speeds were less than 12mph.

AUGUST 27-28: Showers and thunderstorms developed over eastern and northeast Oklahoma on the 27th, and then over northwest, western and central OK on the 28th. The three highest rainfall amounts on the 27th were 1.85 inches in Copan, 1.60 inches in Talala, and 1.58 inches in Nowata. Flooding was reported that same day in Dewey. Much less than the previous day, the highest rainfall amounts on the 28th were .31 inches in Cherokee, .25 inches in Fairview, and .13 inches in Alva. The warmest maximum temperatures decreased slightly from 103 degrees in Freedom on the 27th to 98 degrees in Freedom and Grandfield on the 28th. The coolest maximum temperatures were in the mid-high 70s. Minimum temperatures were between 58 degrees and 76 degrees. Daily average wind speeds were less than 18mph on the 27th and less than 12mph on the 28th. Slapout and Hooker reported 42mph wind gusts on the 27th.

AUGUST 29-30: Despite a cold front stretching over the state, temperatures remained on the high side. Highs ranged from 81 degrees in Medford to 100 degrees in Burneyville. Lows were between 50 degrees in Beaver and 73 degrees in Durant. Storms formed in southern Oklahoma on the 29th and southeast Oklahoma on the 30th. The highest rainfall amount each day was .35 inches in Wister on Saturday and .17 inches in Stuart on Sunday. Average wind speeds were generally less than 10mph.

AUGUST 31: The last day of the month ended with a warm frontal passage and an isolated shower that left .43 inches of rain at the Kenton Mesonet site. Highs were between 88 degrees in the northeast and 102 degrees in Freedom. Lows were between 56 degrees in Camargo and 73 degrees in Eufaula. Average wind speeds were 5-17mph and a gust of 40mph was reported in Weatherford.

AUGUST 2015 SEVERE WEATHER

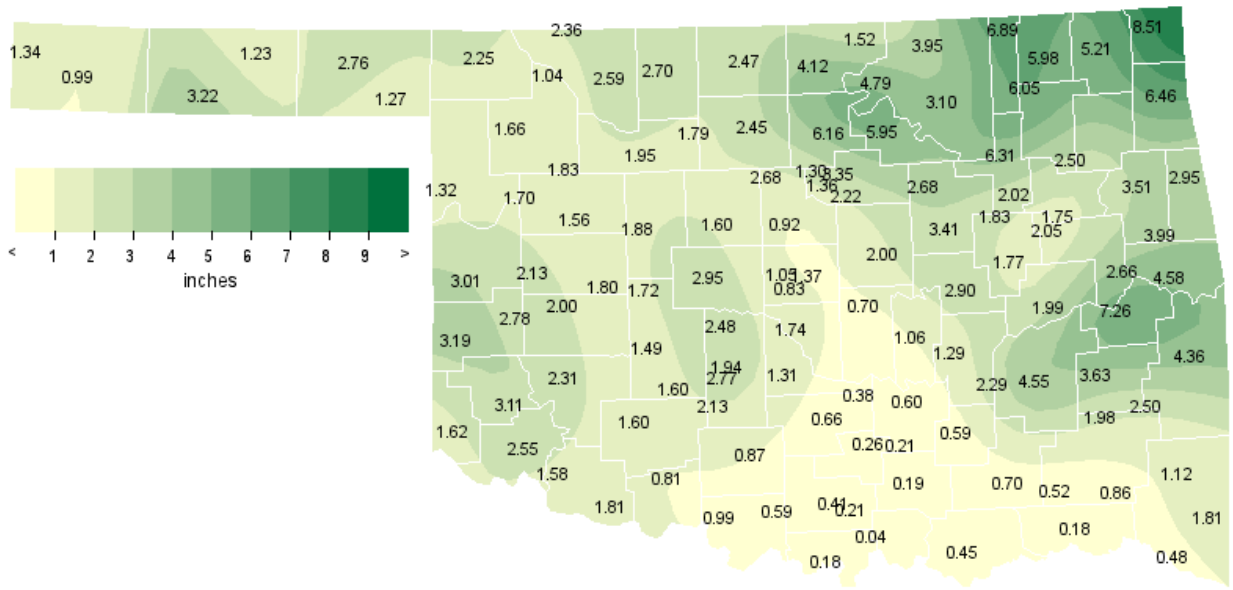
Flooding

Location	County	Day
1 NE Cleo Springs	Major	1
Tonkawa	Kay	22
Commerce	Ottawa	22
1 N Dewey	Washington	27

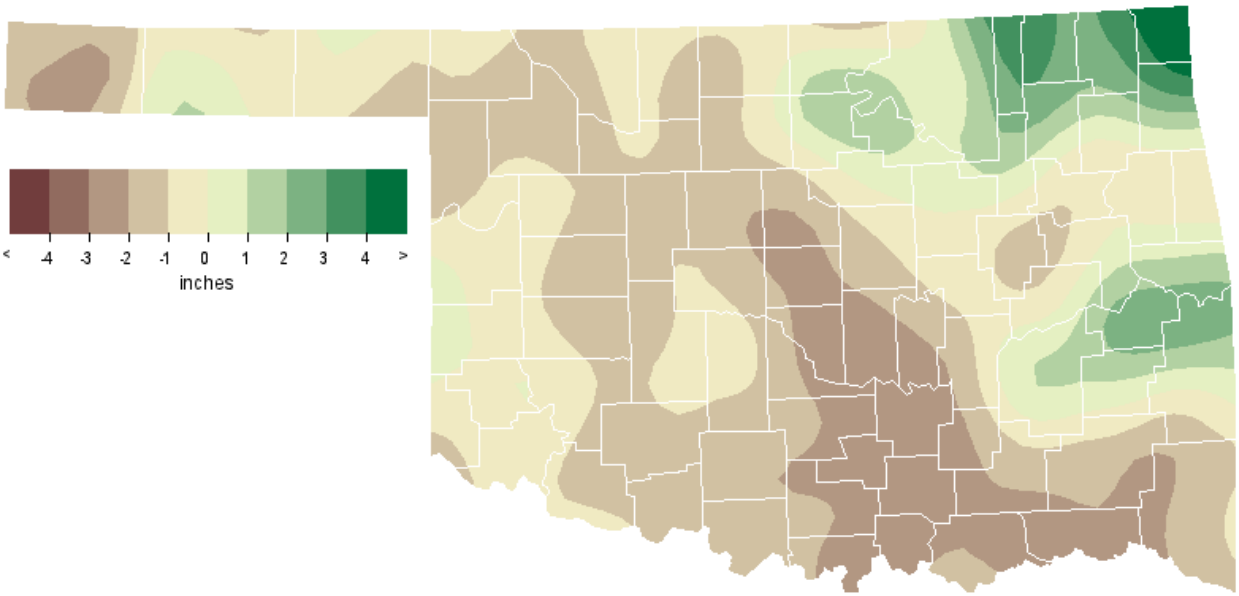
Wind Gusts (70 mph or greater)

Speed (m.p.h)	Location	County	Day
70.00	7 W Hinton	Caddo	18
78.00	7 SSW Alva	Woods	21
70.00	Carmen	Alfalfa	21

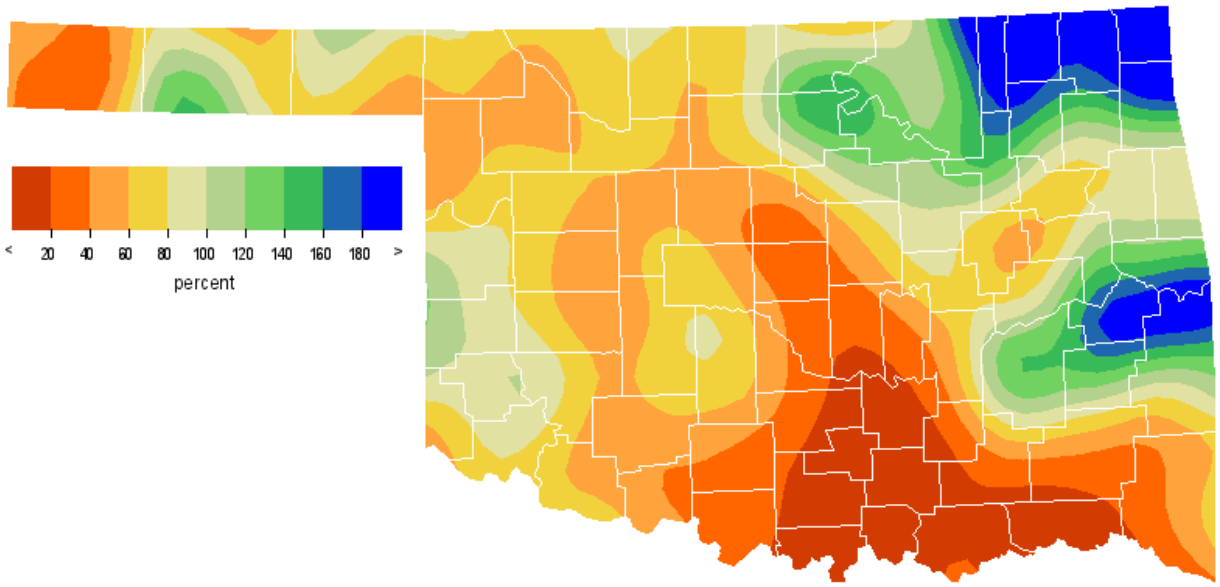
AUGUST 2015 OBSERVED PRECIPITATION



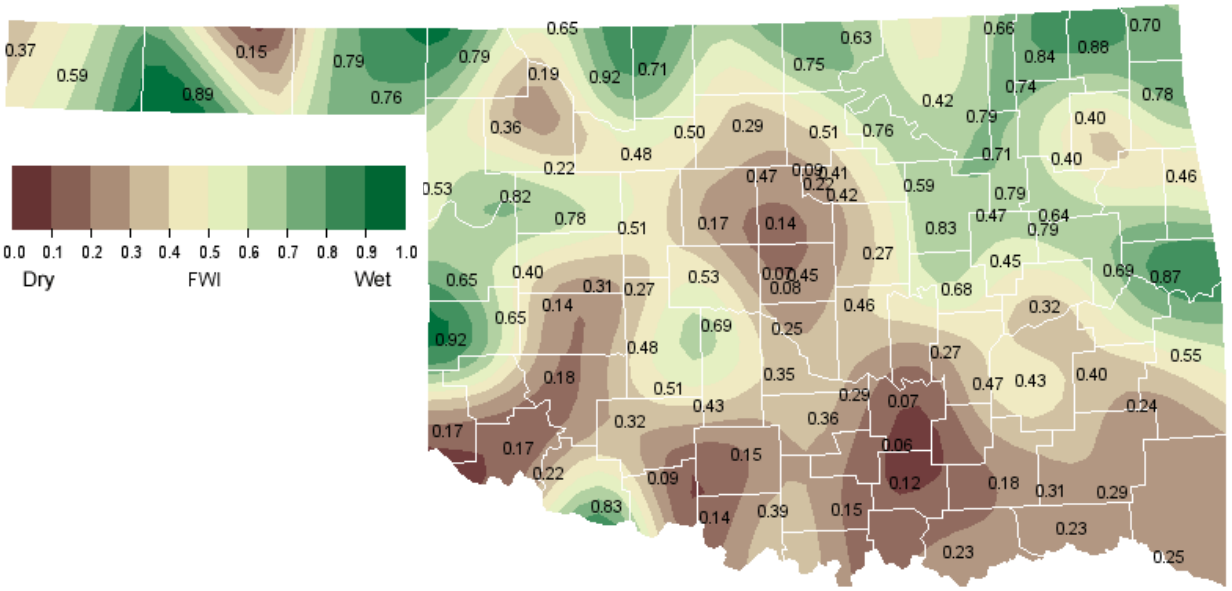
AUGUST 2015 DEPARTURE FROM NORMAL PRECIPITATION



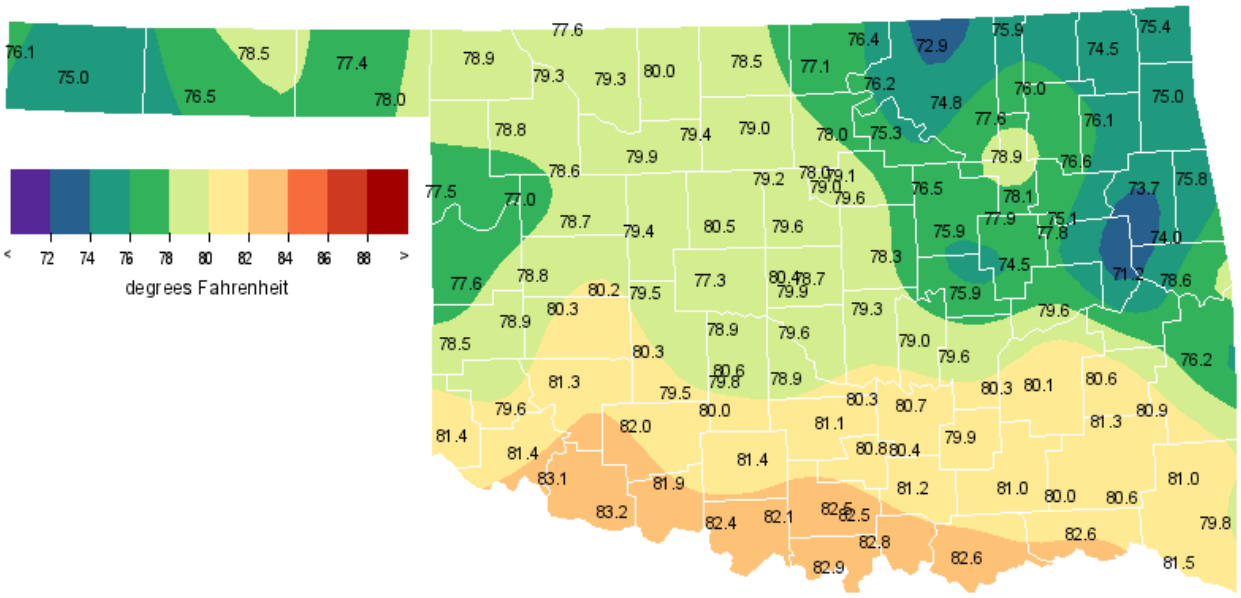
AUGUST 2015 PERCENT OF NORMAL PRECIPITATION



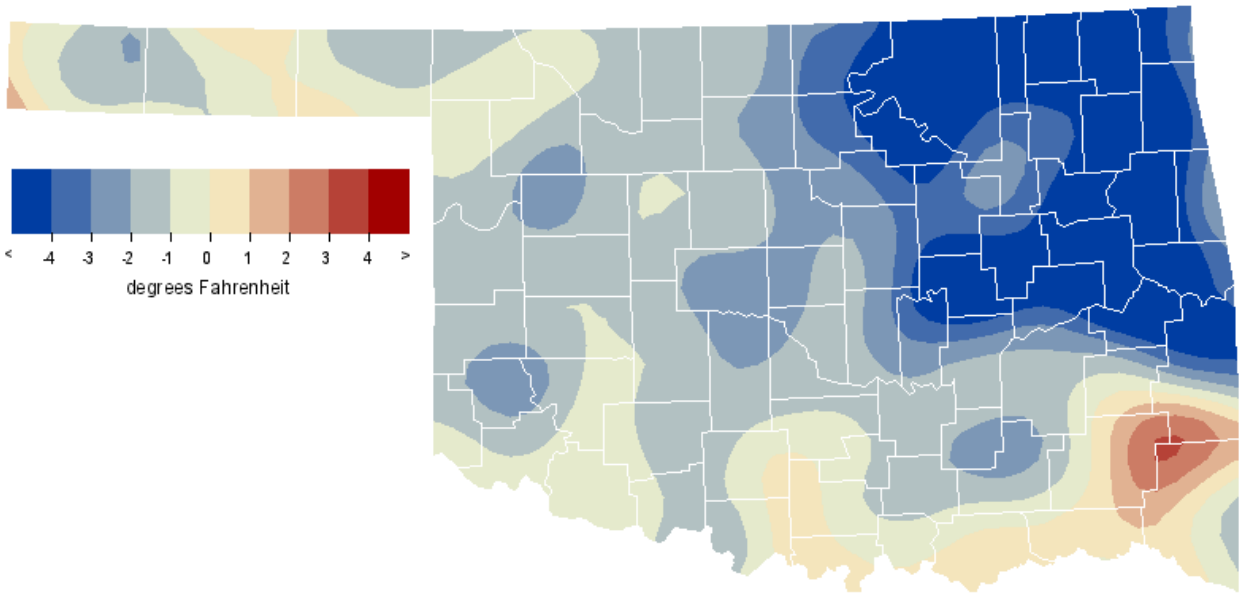
AUGUST 2015 AVERAGE SOIL MOISTURE AT 25CM



AUGUST 2015 AVERAGE TEMPERATURE



AUGUST 2015 DEPARTURE FROM NORMAL TEMPERATURE

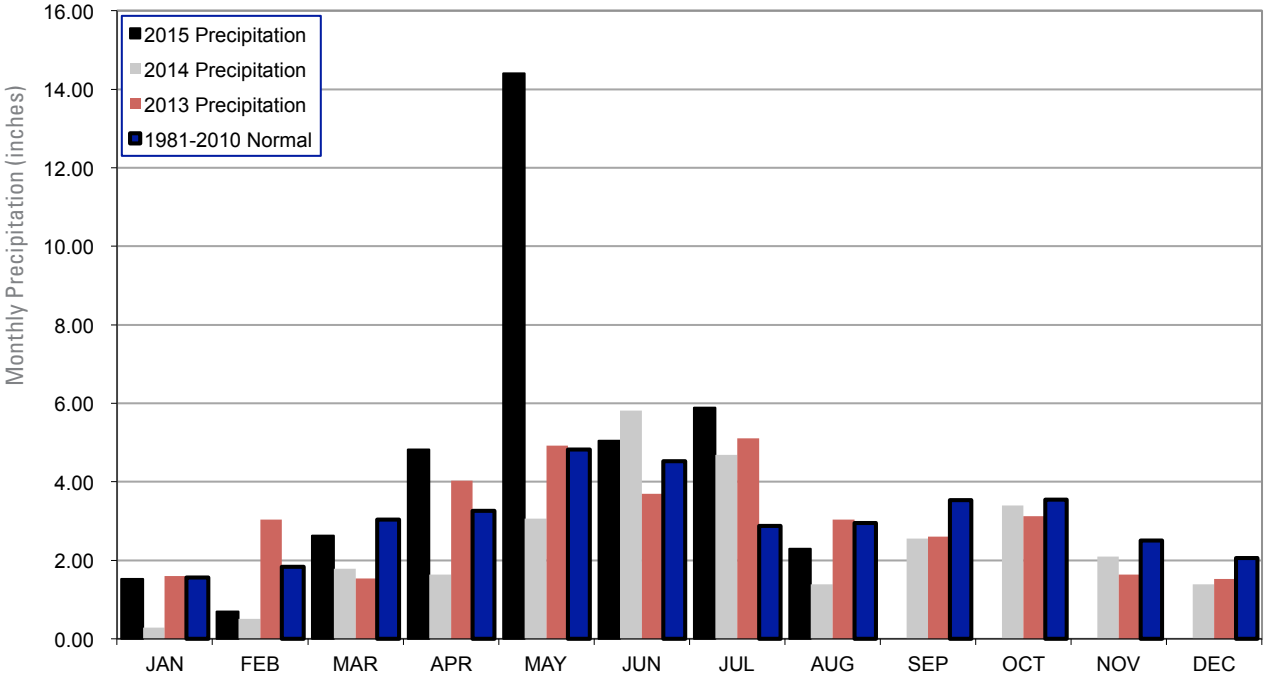


MESONET MONTHLY SUMMARY FOR AUGUST 2015

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	77.5	102	6	54	20	0	387	1.32	.31	18
Beaver	77.4	101	7	50	30	0	383	2.76	1.11	11
Boise City	75.0	99	6	53	24	4	315	.99	.51	8
Buffalo	78.9	104	7	55	20	0	430	2.25	1.03	18
NORTH CENTRAL										
Alva	79.2	103	7	53	20	0	441	2.59	1.87	21
Blackwell	77.1	101	8	52	20	0	375	4.12	1.31	18
Breckinridge	79.0	103	7	54	20	0	434	2.45	1.01	19
Cherokee	80.0	104	8	56	20	0	465	2.70	1.00	18
Fairview	79.9	105	7	57	20	0	461	1.95	.73	18
Freedom	79.3	106	8	54	30	0	445	1.04	.33	12
Lahoma	79.4	104	6	53	20	0	447	1.79	.95	14
NORTHEAST										
Bixby	78.1	102	9	53	20	0	407	2.02	.66	19
Burbank	76.2	100	8	52	20	1	349	4.79	2.96	18
Copan	75.9	99	9	52	25	0	337	6.89	1.85	19
Foraker	75.4	98	9	52	25	****	****	3.95	1.49	18
Inola	76.7	98	9	51	20	1	362	2.50	1.10	19
Jay	75.0	97	9	51	20	5	313	6.46	2.50	23
Miami	75.5	96	9	52	20	2	326	8.51	2.88	18
Nowata	*****	***	***	***	***	****	****	5.98	1.92	19
WEST CENTRAL										
Bessie	80.3	102	7	56	20	0	475	2.00	.83	4
Butler	78.7	100	6	52	20	0	426	2.13	1.32	4
Camargo	77.0	98	6	50	20	0	373	1.70	.61	4
Cheyenne	77.6	97	6	57	20	0	391	3.01	1.89	4
Elk City	78.9	102	6	57	20	0	429	2.78	1.07	4
CENTRAL										
Acme	80.0	100	7	49	20	0	466	2.13	1.05	14
Bowlegs	79.0	100	7	50	20	0	432	1.06	.65	22
Bristow	75.9	97	9	49	20	0	339	3.41	1.47	22
Lake Carl Blac	78.1	104	7	50	20	1	405	1.30	.60	19
Chandler	78.3	99	9	52	20	0	413	2.00	1.22	22
Chickasha	80.5	102	7	52	20	0	482	1.94	.94	14
El Reno	77.3	99	7	47	20	4	385	2.95	1.10	14
Guthrie	79.6	102	9	53	20	0	453	.92	.61	19
Kingfisher	80.5	106	7	53	20	0	480	1.60	.65	19
Marena	78.9	104	9	52	20	0	431	1.36	.69	19
Minco	78.8	99	7	55	20	0	428	2.48	1.21	14
Marshall	79.1	103	9	53	20	0	438	2.68	1.77	19
EAST CENTRAL										
Cookson	76.5	98	9	50	20	****	****	3.99	2.58	23
Eufaula	79.6	101	7	54	20	0	452	1.99	.94	19
Haskell	77.8	99	7	51	20	0	396	2.05	.73	22
Hectorville	77.9	97	9	54	20	0	401	1.83	.77	22
Holdenville	79.7	101	7	53	20	0	454	1.29	.82	22
McAlester	80.1	103	7	54	20	0	467	4.55	2.34	19
Okmulgee	77.1	98	7	50	20	****	****	1.77	.61	22
SOUTHWEST										
Altus	81.4	101	9	57	20	0	508	2.55	1.23	3
Apache	79.5	100	7	53	20	0	449	1.60	.83	4
Fort Cobb	80.3	104	6	53	20	0	474	1.49	.55	4
Grandfield	83.2	104	6	57	20	0	563	1.81	.61	4
Hinton	79.5	102	6	55	20	0	449	1.72	.63	4
Hobart	81.2	104	7	55	20	0	503	2.31	1.11	19
SOUTH CENTRAL										
Ada	80.7	103	7	50	20	0	486	.60	.34	22
Ardmore	82.5	103	6	56	20	0	543	.21	.14	4
Burneyville	82.9	103	7	55	20	0	556	.18	.10	3
Byars	80.3	100	7	54	20	0	475	.38	.19	19
Centrahoma	79.9	101	7	52	20	0	460	.59	.39	19
Durant	82.6	102	7	60	20	0	544	.45	.44	19
Fittstown	80.5	102	7	52	20	0	479	.21	.14	19
Ketchum Ranch	81.4	102	7	55	20	0	507	.87	.41	4
SOUTHEAST										
Antlers	80.0	104	10	53	20	0	465	.52	.40	22
Broken Bow	79.8	106	10	57	26	0	459	1.81	1.17	19
Clayton	81.3	105	9	55	20	0	504	1.98	1.46	19
Cloudy	80.5	104	10	56	26	0	482	.86	.52	19
Hugo	82.6	104	10	59	20	0	546	.18	.18	19

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
Goodwell	76.5	104	6	54	30	0	357	3.22	1.35	17
Hooker	78.5	106	6	54	30	0	419	1.23	.76	17
Kenton	76.1	100	6	53	30	1	344	1.34	.43	31
Slapout	78.0	101	7	54	20	0	402	1.27	.59	18
May Ranch	77.6	100	8	55	30	0	391	2.36	1.09	18
Medford	78.5	103	8	54	20	0	419	2.47	.93	21
Newkirk	76.4	99	8	53	25	0	354	1.52	.67	18
Red Rock	77.9	102	8	52	20	0	400	6.16	4.07	22
Seiling	78.6	102	7	54	20	0	421	1.83	.59	19
Woodward	78.8	105	6	54	30	0	427	1.66	.67	18
Pawnee	77.8	101	9	52	20	****	****	5.95	2.57	22
Porter	77.7	98	9	52	20	****	****	1.75	.69	19
Pryor	76.1	99	9	50	20	3	345	*****	*****	***
Skiatook	77.6	99	9	55	20	0	390	5.36	2.07	19
Talala	76.1	99	9	52	20	0	343	6.05	1.60	27
Tulsa	78.8	101	9	56	20	0	429	6.31	3.67	19
Vinita	74.5	96	9	50	20	2	297	5.21	1.98	19
Wynona	77.3	100	9	52	20	****	****	3.10	1.31	19
Erick	78.5	102	6	56	20	0	418	3.19	1.82	19
Putnam	78.7	99	7	55	20	0	424	1.56	.73	4
Watonga	79.4	104	7	56	20	0	447	1.88	.94	19
Weatherford	80.2	102	7	56	20	0	470	1.80	.96	4
Ninnekah	79.8	100	7	53	20	0	458	2.77	1.59	14
Norman	79.6	99	7	52	20	0	454	1.74	.52	19
Oilton	76.5	99	9	49	20	0	357	2.68	1.39	22
OKC East	79.8	101	7	52	20	0	460	.83	.31	19
OKC North	80.3	102	7	55	20	0	476	1.05	.46	19
Okemah	78.4	100	7	49	20	****	****	2.90	1.48	22
Perkins	79.6	104	7	53	20	0	453	2.22	1.48	22
Shawnee	79.3	101	7	51	20	0	442	.70	.28	22
Spencer	78.6	99	9	52	20	0	423	1.37	.40	21
Stillwater	79.1	104	7	51	20	0	438	3.35	2.53	22
Washington	78.9	98	7	52	20	0	430	1.31	.53	4
Sallisaw	78.6	100	9	53	20	0	422	4.58	1.80	19
Stigler	*****	***	***	***	***	****	****	7.26	3.50	19
Stuart	80.3	103	7	53	20	0	473	2.29	1.63	22
Tahlequah	41.6	96	9	***	4	4	341	3.51	1.78	23
Webbers Falls	*****	***	***	***	***	****	****	2.66	.75	23
Westville	75.7	95	9	50	20	3	336	2.95	1.21	23
Hollis	81.4	107	6	58	20	0	508	1.62	1.05	19
Mangum	79.6	103	6	54	20	0	453	3.11	1.21	19
Medicine Park	82.1	103	7	56	20	0	529	1.60	.75	4
Tipton	83.1	106	6	57	20	0	561	1.58	.81	19
Walters	81.9	102	7	54	20	0	523	.81	.50	4
Lane	80.9	104	10	56	20	0	494	.70	.37	22
Madill	82.9	102	7	56	20	0	554	.04	.03	29
Newport	82.5	102	7	55	20	0	542	.41	.28	4
Pauls Valley	81.1	101	7	53	20	0	498	.66	.43	4
Ringling	82.1	102	6	54	20	0	530	.59	.26	14
Sulphur	80.7	101	7	50	20	0	488	.26	.19	4
Tishomingo	81.1	103	7	53	20	0	499	.19	.13	19
Waurika	82.4	103	7	53	20	0	539	.99	.64	14
Idabel	81.4	104	10	57	26	0	509	.48	.40	19
Mt Herman	80.9	105	10	57	20	0	493	1.12	.93	19
Talihina	80.9	106	9	54	20	0	494	2.50	1.30	19
Wilburton	80.6	105	7	54	20	0	485	3.63	2.43	19
Wister	78.7	104	9	56	26	****	****	4.36	1.55	19

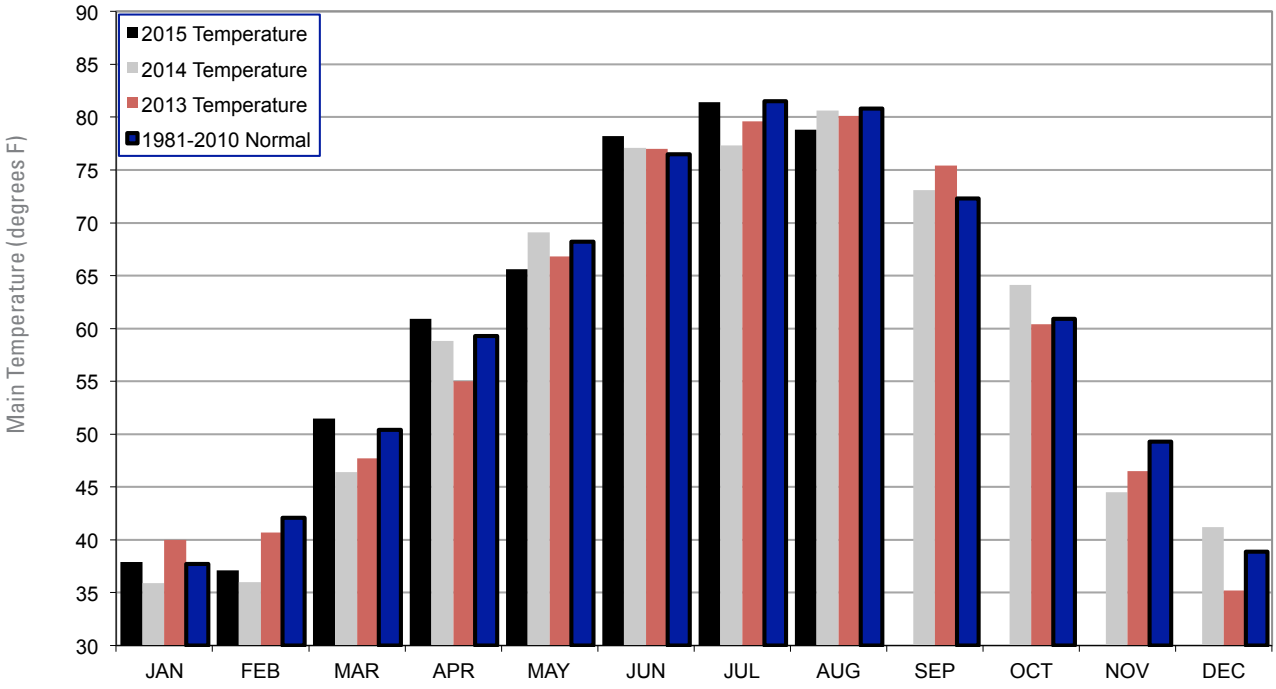
2013, 2014 AND 2015 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



August 2015 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Aug-14
Panhandle	1.80	-0.90	40th Driest	5.81 (1917)	0.54 (1936)	1.93
North Central	2.51	-0.71	61st Driest	8.10 (1974)	0.14 (2000)	2.30
Northeast	4.99	1.75	24th Wettest	7.51 (1964)	0.03 (2000)	1.87
West Central	2.23	-0.78	57th Driest	6.18 (2005)	0.02 (2000)	0.79
Central	1.95	-1.15	38th Driest	8.18 (1906)	0.02 (2000)	0.79
East Central	3.13	0.10	57th Wettest	10.88 (1915)	0.02 (2000)	1.76
Southwest	1.84	-0.93	51st Driest	7.38 (1996)	0.00 (2000)	0.99
South Central	0.46	-2.14	7th Driest	8.72 (1906)	0.01 (2000)	1.32
Southeast	1.74	-1.08	23rd Driest	9.68 (1915)	0.25 (1936)	2.25
Statewide	2.30	-0.65	46th Driest	6.47 (1915)	0.12 (2000)	1.55

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



August 2015 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Aug-14 (F)
Panhandle	77.2	-0.7	44th Coolest	83.7 (1937)	71.4 (1915)	78.8
North Central	78.6	-2.2	26th Coolest	88.3 (1936)	72.9 (1915)	81.0
Northeast	75.9	-4.4	8th Coolest	88.8 (1936)	72.7 (1915)	80.2
West Central	78.8	-1.9	25th Coolest	87.9 (2011)	73.6 (1915)	81.8
Central	78.9	-2.5	20th Coolest	88.7 (1936)	74.1 (1915)	81.3
East Central	77.4	-3.5	13th Coolest	88.6 (1936)	73.5 (1915)	79.8
Southwest	81.2	-1.2	46th Coolest	91.4 (2011)	76.1 (1915)	83.5
South Central	81.5	-1.0	47th Coolest	90.8 (2011)	76.1 (1992)	81.3
Southeast	80.5	0.0	60th Warmest	87.5 (2011)	74.2 (1915)	78.7
Statewide	78.8	-2.0	24th Coolest	87.7 (2011)	73.9 (1915)	80.7

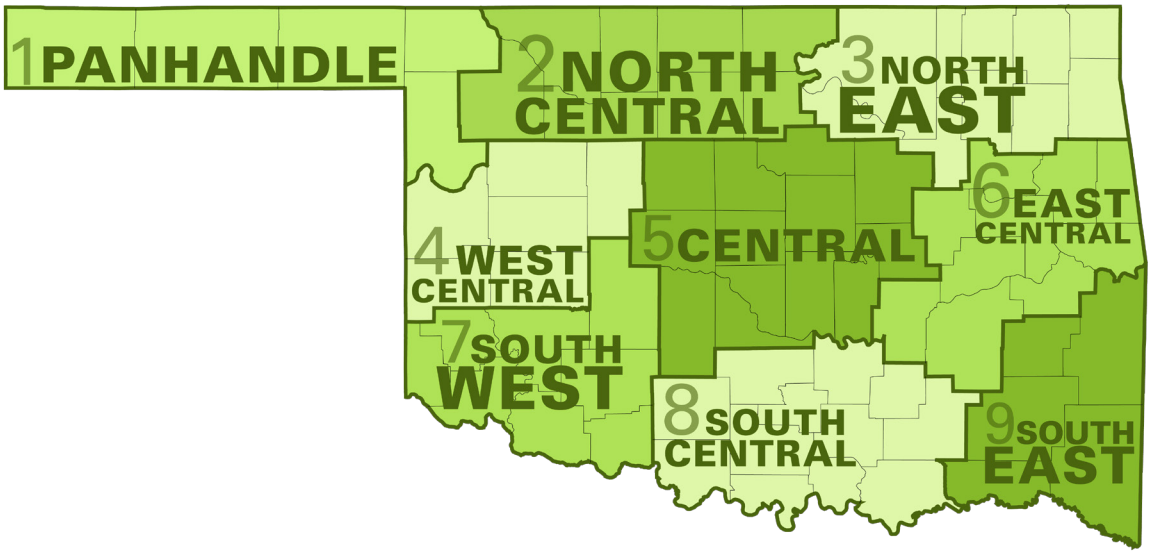
RECORD EVENT REPORTS AUGUST 2015

Description	Day	Location	Record	Previous Record	Year
Daily maximum rainfall	19	Tulsa	3.02	1.6	1915
Daily maximum rainfall	19	McAlester	2.22	0.81	1967
Daily minimum temperature	20	Oklahoma City	50	56	1950
Daily low temperature	20	Muskogee	52	53	1967
Daily low temperature	20	McAlester	55	56	1981
Daily low temperature	20	Bartlesville	51	51	2012
Daily maximum rainfall	22	McAlester	1	0.69	1966
Daily maximum rainfall	23	Muskogee	1.62	1.36	2008
Daily low temperature	25	Tulsa	56	57	1966

MESONET EXTREMES FOR AUGUST 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	106	6th	Hooker	50	30th	Beaver	3.22	Goodwell	1.35	17th	Goodwell
North Central	106	8th	Freedom	52	20th	Red Rock	6.16	Red Rock	4.07	22nd	Red Rock
Northeast	102	9th	Bixby	50	20th	Vinita	8.51	Miami	3.67	19th	Tulsa
West Central	104	7th	Watonga	50	20th	Camargo	3.19	Erick	1.89	4th	Cheyenne
Central	106	7th	Kingfisher	47	20th	El Reno	3.41	Bristow	2.53	22nd	Stillwater
East Central	103	7th	McAlester	48	20th	Tahlequah	7.26	Stigler	3.50	19th	Stigler
Southwest	107	6th	Hollis	53	20th	Apache	3.11	Mangum	1.23	3rd	Altus
South Central	104	10th	Lane	50	20th	Ada	0.99	Waurika	0.64	14th	Waurika
Southeast	106	9th	Talihina	53	20th	Antlers	4.36	Wister	2.43	19th	Wilburton
Statewide	107	6th	Hollis	47	20th	El Reno	8.51	Miami	4.07	22nd	Red Rock

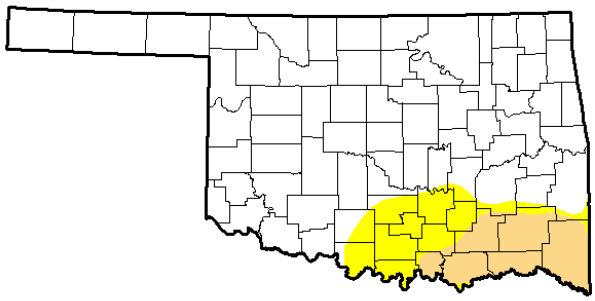
Oklahoma Climate Divisions



AUGUST 2015 DROUGHT MONITOR

U.S. Drought Monitor

Oklahoma



August 25, 2015

(Released Thursday, Aug. 27, 2015)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	81.86	18.14	8.85	0.00	0.00	0.00
Last Week 8/18/2015	69.16	30.84	9.29	1.38	0.00	0.00
3 Months Ago 5/26/2015	77.31	22.69	2.74	0.00	0.00	0.00
Start of Calendar Year 12/30/2014	25.63	74.37	62.03	40.84	21.74	5.70
Start of Water Year 9/30/2014	8.55	91.45	73.31	58.13	20.92	4.64
One Year Ago 8/26/2014	19.52	80.48	71.14	48.51	15.75	2.25

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:
Anthony Artusa
NOAA/NWS/NCEP/CPC

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.

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

Dr. Kevin Kloesel Director
Dr. Chris Fiebrich Associate Director

EDITOR
Gary D. McManus State Climatologist

CONTRIBUTORS
Gary D. McManus State Climatologist
Dr. Mark A. Shafer Associate State Climatologist
Monica Deming Service Climatologist

DESIGN
Ada Shih Creative Director

For more information, contact:
Oklahoma Climatological Survey
The University of Oklahoma
120 David L. Boren Blvd., Suite 2900
Norman, OK 73072-7305

TEL: 405-325-2541
FAX: 405-325-7282
E-MAIL: ocs@ou.edu
WEBSITE: http://climate.ok.gov