

Autumnal temperatures, heavy rain, and drought reduction captured the Oklahoma weather headlines during August, although the blazing voice of summer was still heard on occasion. Drought shrank considerably in both coverage and intensity during the month thanks to some well-placed heavy rains. Wind, hail and flash flooding accompanied a somewhat unusual uptick in severe weather. Flash flooding necessitated water rescues in several cities, and a Main Street bridge was washed away in Norman. The severe weather culminated with two confirmed tornadoes in Mayes and Rogers counties on Aug. 19, damaging mobile homes, outbuildings and trees. The first tornado passed over the Oklahoma Mesonet station east of Inola, producing a wind gust of 98 mph near the ground. The rains were the real star of the month, however.

According to preliminary data from the Mesonet, the statewide average rainfall was 3.99 inches, 1.04 inches

Oklahoma was 10-12 inches below normal for the first eight months of the year.

The month was decidedly mild with a statewide average temperature of 79.5 degrees, 1.3 degrees below normal to rank as the 37th coolest August on record. The Mesonet's 120 sites failed to record a single triple-digit temperature on 16 days during the month. Hollis and Hooker led August with highs of 104 degrees on the 17th and 30th, respectively. Eva fell to 48 degrees on the 21st for the month's lowest temperature. The heat index soared to 113 degrees on the 16th at Webbers Falls. Thirty-four heat index readings of at least 110 degrees were recorded Aug. 16-17. Bolstered by the warmer-than-normal months of June and July, the climatological summer ended as the 34th warmest on record, 1.3 degrees above normal. Similarly, the first eight months of the year were 0.7 degrees above normal to rank as the 30th warmest January-August on record.

August 2018 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	104°F	Hollis, Hooker	17, 30
Low Temperature	48°F	Eva	21
High Precipitation	11.28 in.	Miami	--
Low Precipitation	1.14 in.	Apache	--

above normal to rank as the 22nd wettest August since records began in 1895. Thirty-two of the Mesonet's 120 sites received at least 5 inches of rain, and another 22 recorded 4 inches or more. Miami led the state with 11.28 inches, although Wister was close behind at 10.56 inches. Apache had the lowest total of 1.14 inches. Twelve other sites, each across western Oklahoma, failed to reach 2 inches. The June-August statewide average of 10.8 inches was 0.45 inches above normal to rank as the 41st wettest climatological summer on record. The Panhandle enjoyed its 12th wettest summer with an average surplus of 3.21 inches. Sites in Beaver County were more than 5 inches above normal for the season. In contrast, many of the Mesonet locations in the southwest corner of the state were nearly 5 inches below normal. Wister was an impressive 11.6 inches above normal for the summer at 22.3 inches. The January-August statewide average of 23.58 inches was 1.28 inches below normal. A swath from southwest through northeast

August 2018 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2018)
Month (Aug)	79.5°F	-1.3°F	37th Coolest
Season-to-Date (Jun-Aug)	80.9°F	1.3°F	34th Warmest
Year-to-Date (Jan-Aug)	63.0°F	0.7°F	30th Warmest

Precipitation

	Total	Depart.	Rank (1895-2018)
Month (Aug)	3.99 in.	1.04 in.	22nd Wettest
Season-to-Date (Jun-Aug)	10.80 in.	0.45 in.	41st Wettest
Year-to-Date (Jan-Aug)	23.58 in.	-1.28 in.	59th Wettest

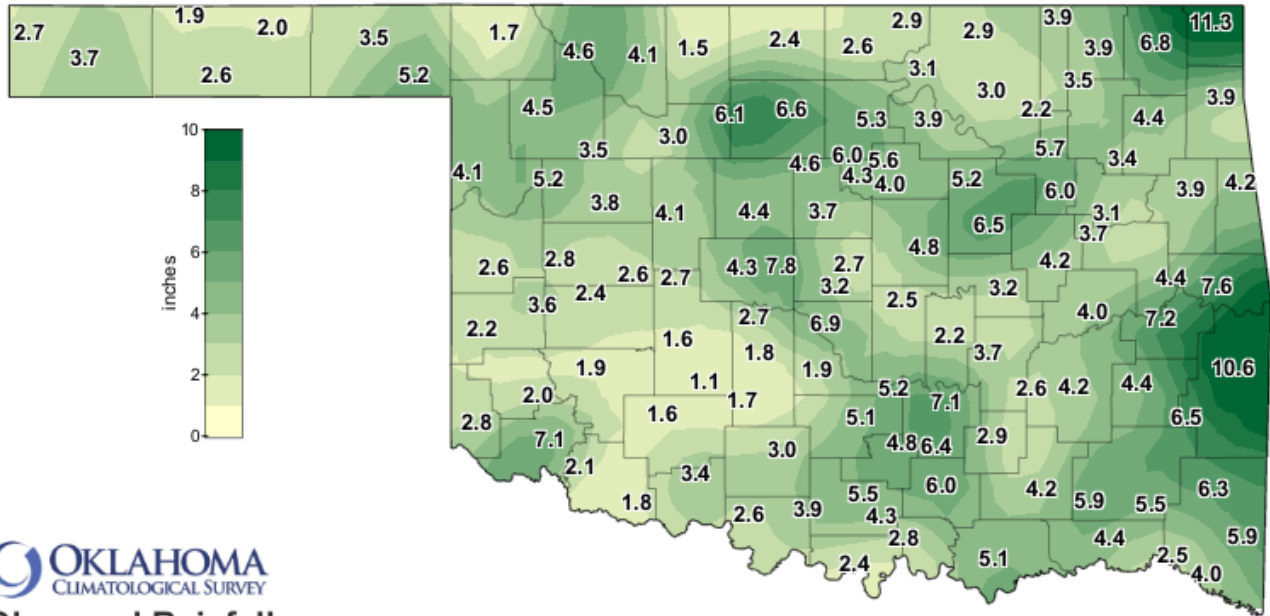
Depart. = departure from 30-year normal

Drought coverage across the state was reduced from 55 percent at the end of July to 31 percent at the of August, with a wide strip of drought-free conditions from the western Panhandle through eastern Oklahoma. Drought intensity was reduced as well. Areal coverage of drought considered at least in the severe category fell from 32 percent to 19

percent. The Drought Monitor's intensity scale slides from moderate-severe-extreme-exceptional, with exceptional being the worst classification. The southwest remained the hardest hit area with 94 percent considered to be in severe or extreme drought.

The September temperature outlook from the Climate Prediction Center (CPC) indicated increased odds of above normal temperatures across the entire state, with those odds a bit more enhanced in the eastern third. The precipitation outlook showed enhanced odds of above normal precipitation across the far northwest, but a bit higher chances in the Panhandle. CPC's September drought outlook called for drought improvement or removal in the northeast and far southwest areas of the state, but persistence in south central Oklahoma.

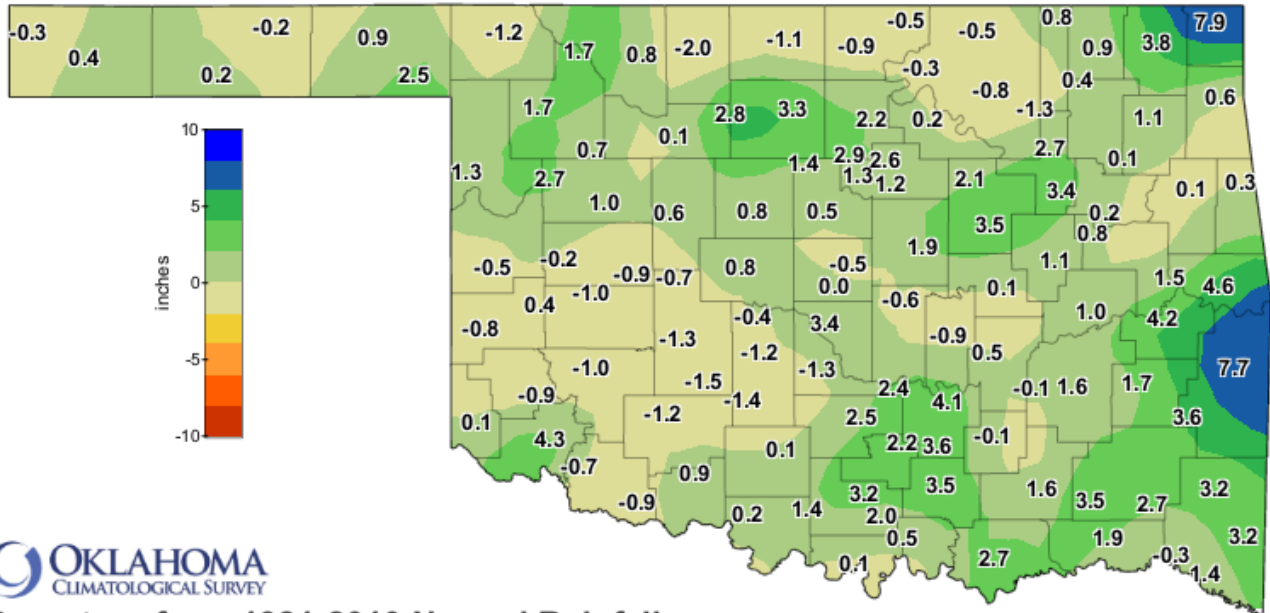
AUGUST 2018 OBSERVED PRECIPITATION



OKLAHOMA
CLIMATOLOGICAL SURVEY
Observed Rainfall
Current Month

Aug 01, 2018 through Aug 31, 2018
Created 12:01:42 PM September 1, 2018 UTC. © Copyright 2018

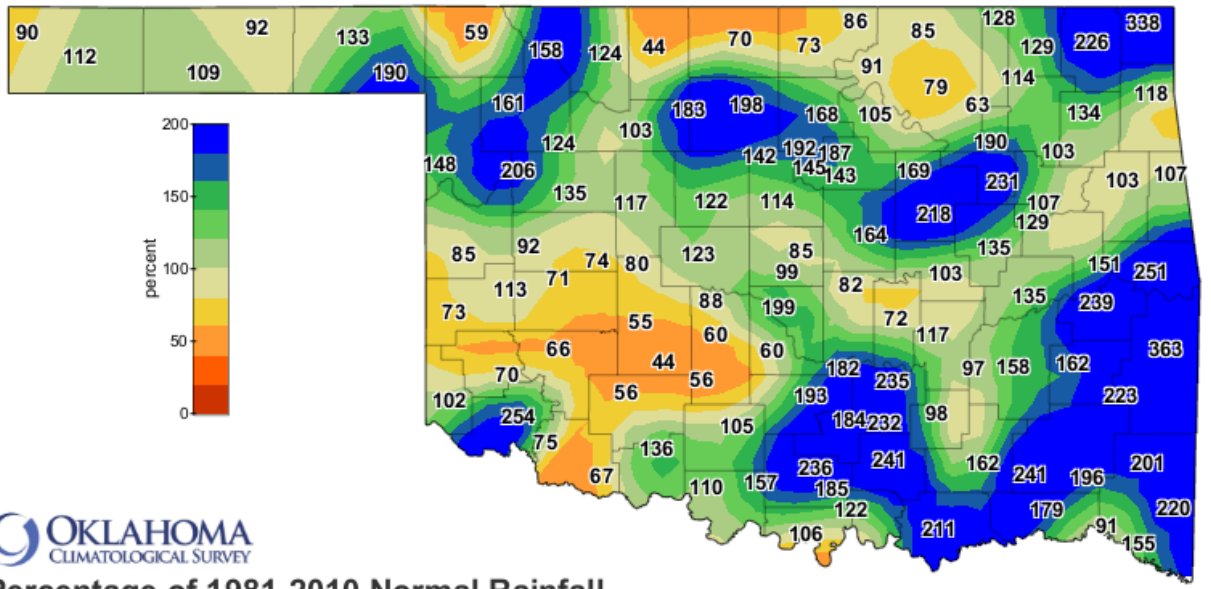
AUGUST 2018 DEPARTURE FROM NORMAL PRECIPITATION



OKLAHOMA
CLIMATOLOGICAL SURVEY
Departure from 1981-2010 Normal Rainfall
Current Month

Aug 01, 2018 through Aug 31, 2018
Created 12:01:43 PM September 1, 2018 UTC. © Copyright 2018

AUGUST 2018 PERCENT OF NORMAL PRECIPITATION



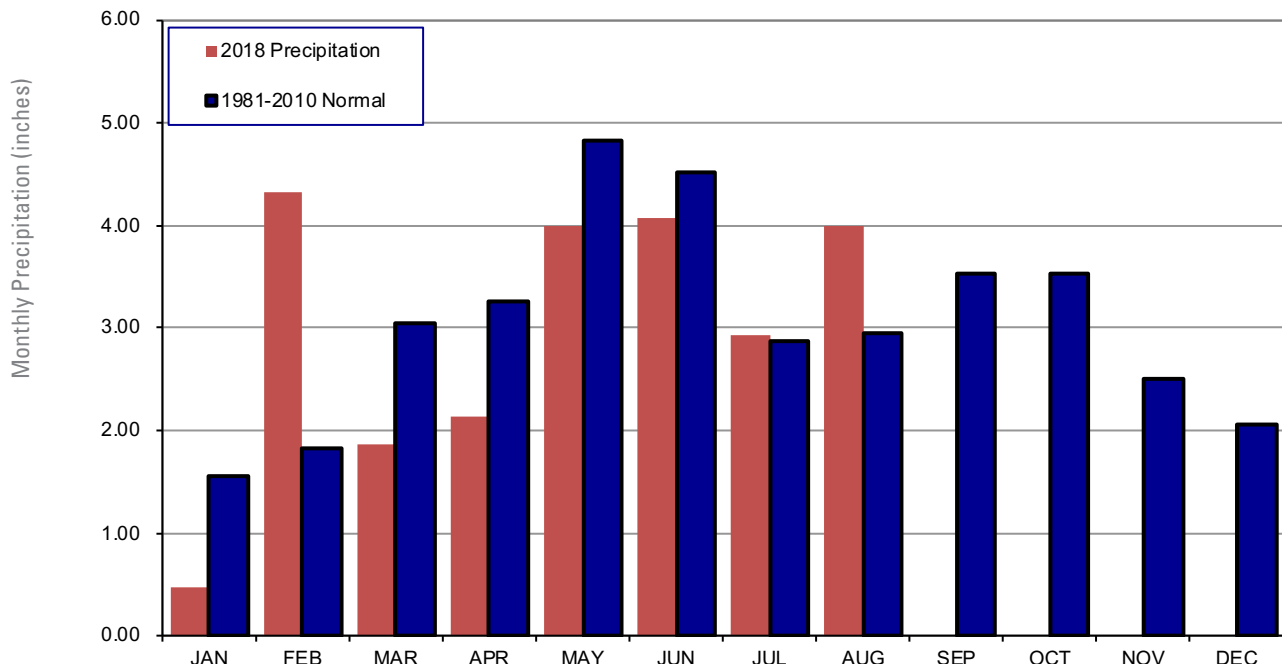
Percentage of 1981-2010 Normal Rainfall
Current Month

Aug 01, 2018 through Aug 31, 2018
Created 12:01:43 PM September 1, 2018 UTC. © Copyright 2018

MESONET MONTHLY SUMMARY FOR AUGUST 2018

PANHANDLE										NORTH CENTRAL										NORTHEAST										WEST CENTRAL										CENTRAL										EAST CENTRAL										SOUTHWEST										SOUTH CENTRAL										SOUTHEAST																																																																																																																																																																																																																																																																				
NAME	MEAN TEMP	HIGH TEMP	LOW TEMP	DAY	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY	NAME	MEAN TEMP	HIGH TEMP	LOW TEMP	DAY	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY	NAME	MEAN TEMP	HIGH TEMP	LOW TEMP	DAY	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY	NAME	MEAN TEMP	HIGH TEMP	LOW TEMP	DAY	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY	NAME	MEAN TEMP	HIGH TEMP	LOW TEMP	DAY	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY	NAME	MEAN TEMP	HIGH TEMP	LOW TEMP	DAY	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY	NAME	MEAN TEMP	HIGH TEMP	LOW TEMP	DAY	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY	NAME	MEAN TEMP	HIGH TEMP	LOW TEMP	DAY	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY																																																																																																																																																																																																																																																													
PANHANDLE										NORTH CENTRAL										NORTHEAST										WEST CENTRAL										CENTRAL										EAST CENTRAL										SOUTHWEST										SOUTH CENTRAL										SOUTHEAST																																																																																																																																																																																																																																																																				
Arnett	79.0	99	28	55	21	0	435	4.05	1.22	19	Goodwell	77.0	102	30	51	21	0	372	2.57	.99	21	Bixby	79.5	96	6	61	1	0	449	5.97	2.99	19	Erick	81.1	102	24	57	21	0	499	2.21	.73	28	Acme	46.4	99	31	***	7	0	486	1.71	.70	13	Marshall	80.4	98	6	60	1	0	478	4.63	1.70	19	Cookson	78.2	96	7	58	1	0	408	*****	*****	***	Sallisaw	79.0	96	6	61	1	0	435	7.56	4.13	15	Blackwell	79.2	99	31	61	1	0	441	2.57	.76	19	Norman	80.3	98	7	61	1	0	475	6.87	3.47	14	Eufaula	80.2	96	7	61	1	0	471	4.01	1.31	13	Breckinridge	80.2	99	6	60	1	0	473	6.64	2.50	13	Oilton	78.7	96	30	58	1	0	423	5.21	1.88	19	Haskell	79.2	95	24	60	1	0	439	3.72	1.05	14	Cherokee	81.0	102	31	60	21	0	496	1.54	.74	19	OKC East	80.3	96	24	62	1	0	475	3.23	1.19	8	Fairview	80.9	101	31	60	1	0	492	2.97	1.10	19	Okemah	79.8	96	7	61	1	0	458	3.22	.74	16	Freedom	79.4	101	31	56	21	0	446	4.57	2.19	8	Perkins	80.0	98	6	62	1	0	464	3.95	1.61	19	Lahoma	79.7	100	5	61	21	0	457	6.07	1.69	14	Shawnee	80.6	99	7	63	1	0	484	2.47	.99	19	Bessie	81.3	101	30	60	21	0	506	2.42	1.28	14	Spencer	80.0	96	24	60	1	0	466	2.67	.57	19	Butler	46.2	101	31	***	30	0	478	2.75	1.11	19	Stillwater	79.9	96	30	61	1	0	462	5.59	2.91	16	Camargo	79.3	99	5	57	1	0	444	5.17	2.24	19	Washington	80.2	98	17	61	1	0	472	1.94	.96	19	Cheyenne	80.3	98	24	59	21	0	473	2.58	1.71	19	Yukon	79.4	96	7	60	1	0	445	7.78	2.77	8	Elk City	80.8	100	7	61	21	****	****	3.64	1.61	10

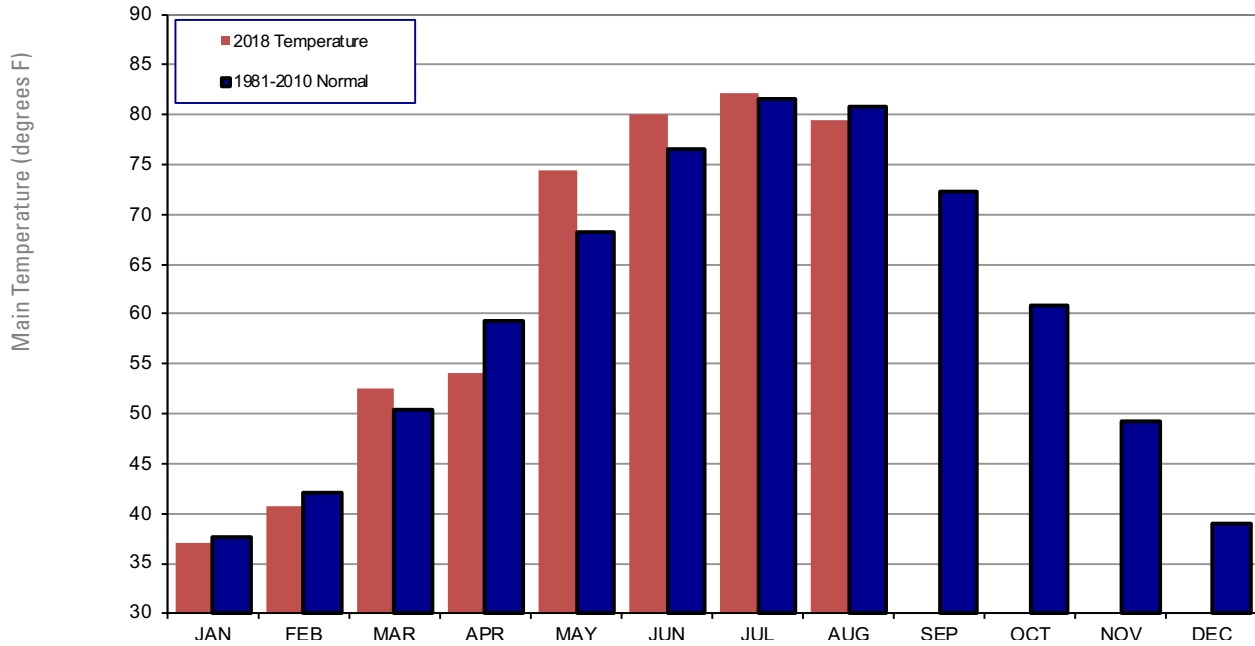
2018 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



August 2018 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Aug-17 (inches)
Panhandle	3.03	0.33	40th Wettest	5.81 (1917)	0.54 (1936)	3.21
North Central	3.92	0.70	38th Wettest	8.10 (1974)	0.14 (2000)	5.19
Northeast	4.42	1.18	36th Wettest	7.51 (1964)	0.03 (2000)	6.24
West Central	3.24	0.23	42nd Wettest	6.92 (2017)	0.02 (2000)	6.92
Central	4.09	0.99	23rd Wettest	8.18 (1906)	0.02 (2000)	7.16
East Central	4.52	1.49	28th Wettest	10.88 (1915)	0.02 (2000)	7.80
Southwest	2.55	-0.22	50th Wettest	7.38 (1996)	0.00 (2000)	6.94
South Central	4.45	1.85	21st Wettest	8.72 (1906)	0.01 (2000)	6.69
Southeast	5.60	2.78	15th Wettest	9.68 (1915)	0.25 (1936)	7.99
Statewide	3.99	1.04	22nd Wettest	6.47 (1915)	0.12 (2000)	6.41

2018 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



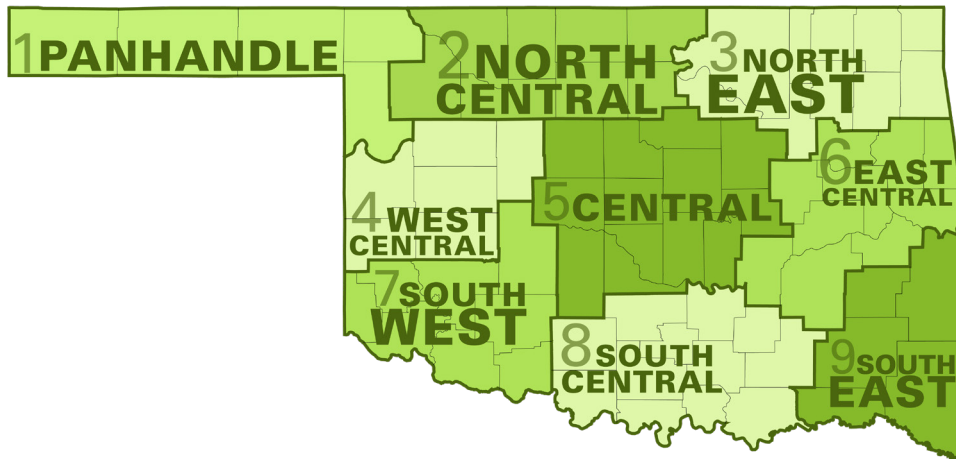
August 2018 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Aug-17 (F)
Panhandle	76.7	-1.2	33rd Coolest	83.7 (1937)	71.4 (1915)	73.9
North Central	79.5	-1.3	43rd Coolest	88.2 (1936)	72.9 (1915)	76.3
Northeast	78.7	-1.6	37th Coolest	88.8 (1936)	72.7 (1915)	76.4
West Central	79.9	-0.8	48th Coolest	87.9 (2011)	73.6 (1915)	76.9
Central	79.8	-1.6	32nd Coolest	88.7 (1936)	74.1 (1915)	77.8
East Central	79.0	-1.9	31st Coolest	88.6 (1936)	73.5 (1915)	78.1
Southwest	82.4	0.0	61st Warmest	91.4 (2011)	76.1 (1915)	78.4
South Central	80.7	-1.8	33rd Coolest	90.8 (2011)	76.1 (1992)	79.4
Southeast	79.5	-0.9	51st Coolest	87.5 (2011)	74.2 (1915)	78.4
Statewide	79.5	-1.3	37th Coolest	87.7 (2011)	73.9 (1915)	77.3

MESONET EXTREMES FOR AUGUST 2018

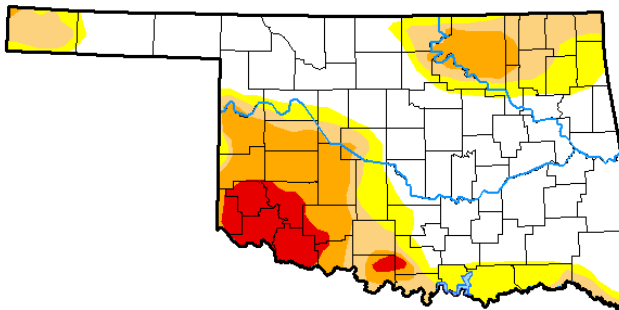
Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	104	30th	Hooker	48	21st	Eva	5.18	Slapout	1.65	29th	Slapout
North Central	102	31st	Cherokee	56	21st	Freedom	6.64	Breckinridge	2.50	13th	Breckinridge
Northeast	99	6th	Pawnee	57	1st	Jay	11.28	Miami	3.41	19th	Miami
West Central	102	24th	Erick	57	1st	Camargo	5.17	Camargo	2.24	19th	Camargo
Central	100	30th	Kingfisher	57	21st	Acme	7.78	Yukon	3.47	14th	Norman
East Central	97	6th	Hectorville	57	1st	Tahlequah	7.56	Sallisaw	4.13	15th	Sallisaw
Southwest	104	17th	Hollis	57	21st	Mangum	7.05	Altus	2.96	14th	Altus
South Central	103	7th	Waurika	58	21st	Sulphur	7.11	Ada	3.95	13th	Fittstown
Southeast	99	7th	Valliant	58	3rd	Antlers	10.56	Wister	4.96	15th	Wister
Statewide	104	30th	Hooker	48	21st	Eva	11.28	Miami	4.96	15th	Wister

Oklahoma Climate Divisions



U.S. Drought Monitor Oklahoma

August 28, 2018
(Released Thursday, Aug. 30, 2018)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	53.85	46.15	31.47	18.63	5.65	0.00
Last Week 08-21-2018	50.09	49.91	32.00	18.58	5.77	1.28
3 Months Ago 05-29-2018	37.27	62.73	45.53	40.54	29.71	9.81
Start of Calendar Year 01-02-2018	0.00	100.00	77.15	38.76	0.00	0.00
Start of Water Year 09-26-2017	64.46	35.54	0.77	0.00	0.00	0.00
One Year Ago 08-29-2017	97.84	2.16	0.00	0.00	0.00	0.00

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:

Jessica Blunden
NCEI/NOAA



<http://droughtmonitor.unl.edu/>

INTERPRETATION INFORMATION

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

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

ADDITIONAL RESOURCES

SUNRISE / SUNSET TABLES

U.S. Naval Observatory: <http://aa.usno.navy.mil/data>

SEVERE STORM REPORTS

Storm Prediction Center: <http://spc.noaa.gov/climo/>

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

SEASONAL OUTLOOKS

Climate Prediction Center:
http://www.cpc.ncep.noaa.gov/products/OUTLOOKS_index.shtml

CLIMATE CALENDARS AND OTHER LOCAL WEATHER AND CLIMATE INFORMATION

Oklahoma Climatological Survey:
<http://climate.mesonet.org> or <http://climate.ok.gov/>



Oklahoma Climatological Survey is the State Climate Office for Oklahoma

Dr. Kevin Kloesel Director
Dr. Chris Fiebrich Associate Director

EDITOR

Gary D. McManus State Climatologist

DESIGN

Ada Hoang 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>