

July brought a near miraculous recovery to much of Oklahoma, which was faced with an intensifying drought headed into summer’s scorching middle stanza. Uncharacteristically wet conditions succeeded in beating the drought back to a more manageable level, however, especially across the hardest hit areas in northern and central Oklahoma. Drought covered as much as 51 percent of the state on July 7 according to the U.S. Drought Monitor. That coverage was reduced nearly in half by the end of July, however, eventually encompassing a little less than 26 percent of the state. The worst remaining conditions were across southwestern and west central Oklahoma where severe-to-extreme drought dominated the Drought Monitor map. The Drought Monitor’s intensity scale slides from moderate-severe-extreme-exceptional, with exceptional being the worst classification. Some of the heaviest rains were accompanied by severe weather. Two large areas of severe storms moved from north to south

Ames and Jefferson – both with data stretching back to the 1890s – also saw records fall with 10.61 and 9.55 inches, respectively. Enid’s value for the month was bested when a volunteer observer near the small town of Hunter in Grant County reported the state’s highest total with 16.17 inches. That ranks as the 13th highest July rainfall total ever recorded in the state. Wewoka’s 18.83 in 1950 tops the list. Three Oklahoma Mesonet sites surpassed 10 inches, led by Breckinridge’s 11.96 inches. Butler brought up the rear at 1.23 inches. The January-July statewide average of 25.07 inches ranked as the 19th wettest such period on record with an average surplus of 3.16 inches.

The month began with searing heat, peaking on the 14th with the Mesonet’s site at Hollis hitting 113 degrees. The Mesonet’s 120 sites recorded triple-digit readings 258 times during the month, and 286 heat index values of at least 110

July 2020 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	113°F	Hollis	14
Low Temperature	56°F	Eva, Kenton, Boise City	31
High Precipitation	11.96 in.	Breckinridge	--
Low Precipitation	1.23 in.	Butler	--

across the center and eastern sections of the state on the 11th, along with damaging winds of up to 80 mph. The storms left tens of thousands without power – for several days in some cases. Another round of storms on the 30th packed winds of over 90 mph and caused extensive tree and power line damage across southern Oklahoma. The Oklahoma Mesonet site at Fittstown recorded a wind gust of 90 mph that evening.

In a stunning reversal of fortune following its 12th driest June on record, north central Oklahoma recorded its second wettest July with an average of 7.8 inches of rainfall, a surplus of 4.99 inches. Only 1950’s 8.59 inches ranked higher. Overall, the statewide average of 4.84 inches was 1.96 inches above normal to rank as the 16th wettest July on record. Several locations broke rainfall records for July. Enid’s 13.06 inches became their highest July total since its records began in 1894, topping 1960’s 12.97 inches.

July 2020 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2020)
Month (July)	82.0°F	0.5°F	54th Warmest
Season-to-Date (Jun-Jul)	80.4°F	1.4°F	34th Warmest
Year-to-Date (Jan-Jul)	60.9°F	1.4°F	17th Warmest

Precipitation

	Total	Depart.	Rank (1895-2020)
Month (July)	4.84 in.	1.96 in.	16th Wettest
Season-to-Date (Jun-Jul)	6.94 in.	-0.46 in.	61st Wettest
Year-to-Date (Jan-Jul)	25.07 in.	3.16 in.	19th Wettest

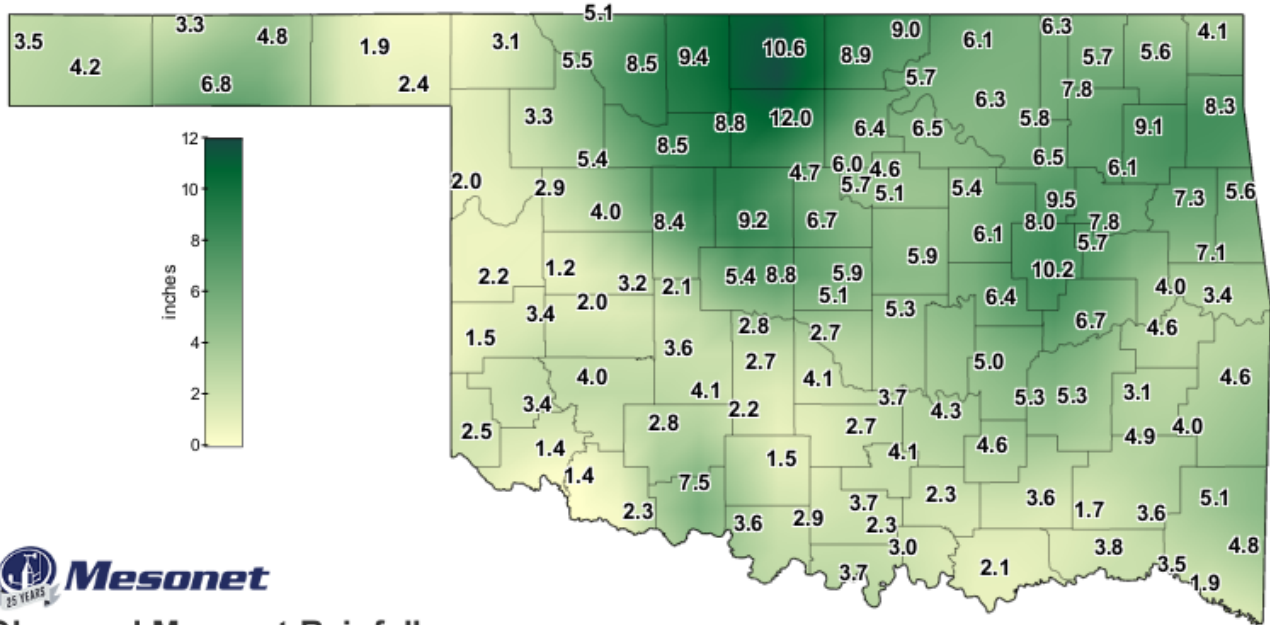
Depart. = departure from 30-year normal

degrees. Stillwater topped heat index reports during July at 121 degrees on July 11. Rain and its associated cloudiness helped to cool the state down during the second half of the month. The most enjoyable weather was reserved for the month’s final week when highs dropped into the 80s and low 90s. Northeastern Oklahoma failed to escape the 70s on July’s final day. Altogether, the statewide average

temperature was 82 degrees to rank as the 54th warmest July on record at half a degree above normal. The first seven months of the year were 1.4 degrees above normal at 60.9 degrees to rank as the 17th warmest January-July on record.

The Climate Prediction Center (CPC) sees continued drought woes through August for those areas of the state currently in drought, but no further drought development is expected. Drought is expected to persist or intensify across much of the western half of the country. The temperature outlook indicates increased odds of below normal temperatures across the northeastern third of the state, but the worst drought areas across western Oklahoma are shown with "equal chances," where odds are equal for above-, below- and near-normal temperatures. The precipitation outlook also shows all of the Southern Plains, including Oklahoma, with those same equal chances for each corresponding rainfall category.

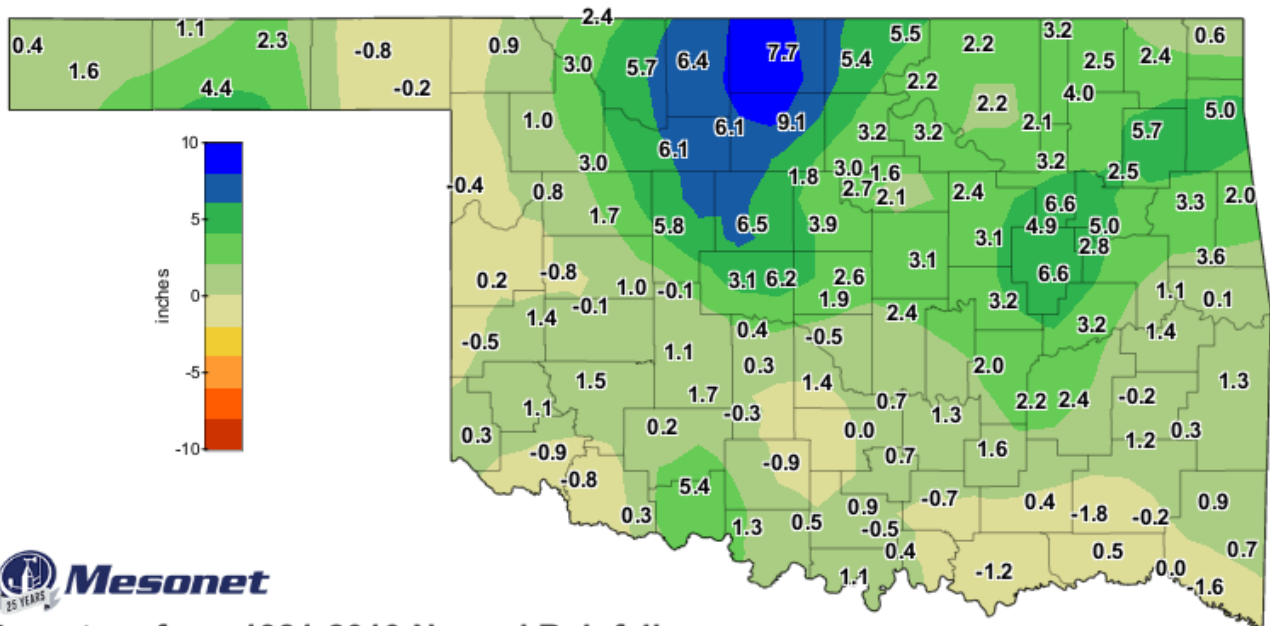
JULY 2020 OBSERVED PRECIPITATION



Observed Mesonet Rainfall
Calendar Month to Date

Jul 1, 2020 through Jul 31, 2020
Created 12:00:24 PM August 1, 2020 UTC. Copyright 2020

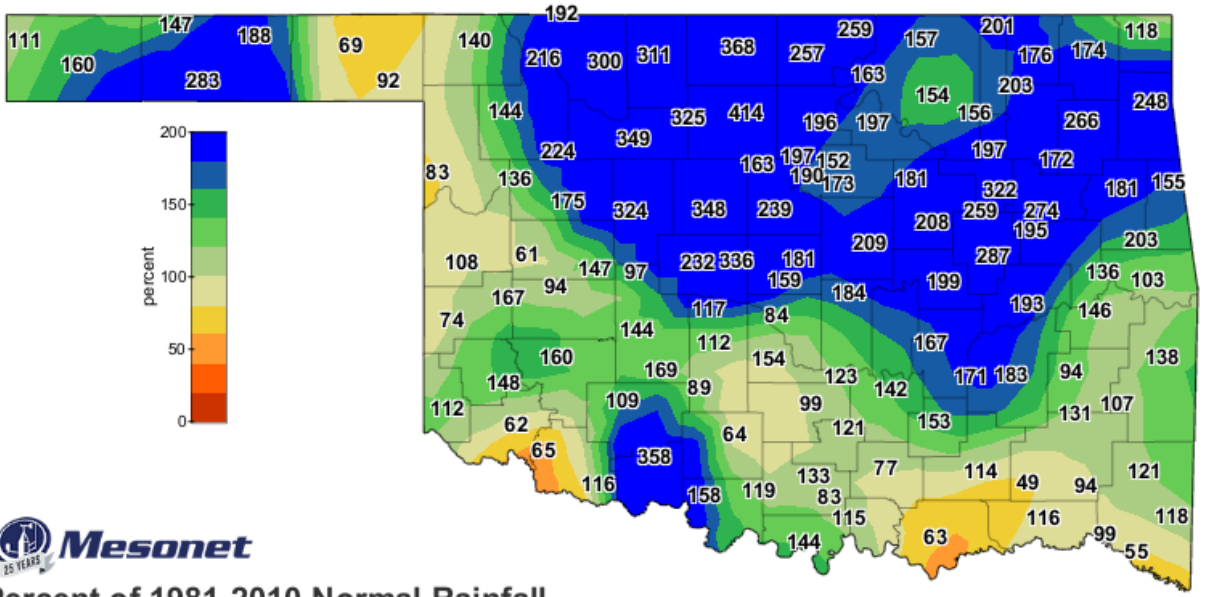
JULY 2020 DEPARTURE FROM NORMAL PRECIPITATION



Departure from 1981-2010 Normal Rainfall
Calendar Month to Date

Jul 1, 2020 through Jul 31, 2020
Created 12:00:24 PM August 1, 2020 UTC. Copyright 2020

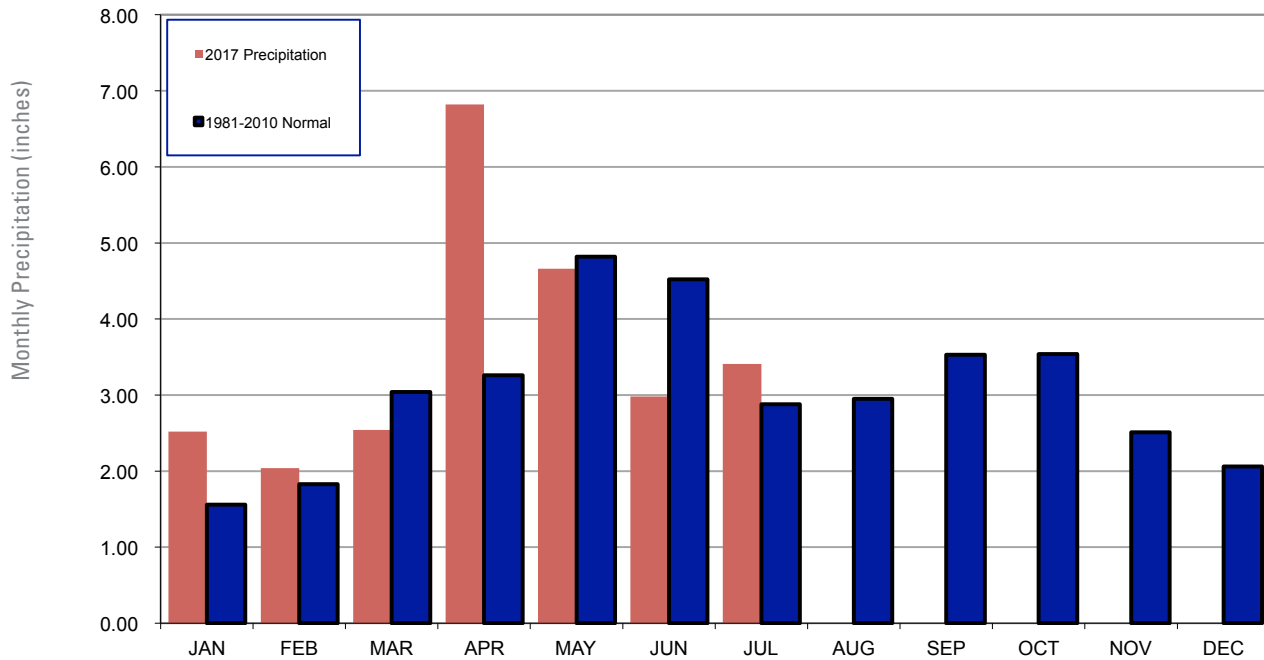
JULY 2020 PERCENT OF NORMAL PRECIPITATION



Percent of 1981-2010 Normal Rainfall
Calendar Month to Date

Jul 1, 2020 through Jul 31, 2020
Created 12:00:24 PM August 1, 2020 UTC. Copyright 2020

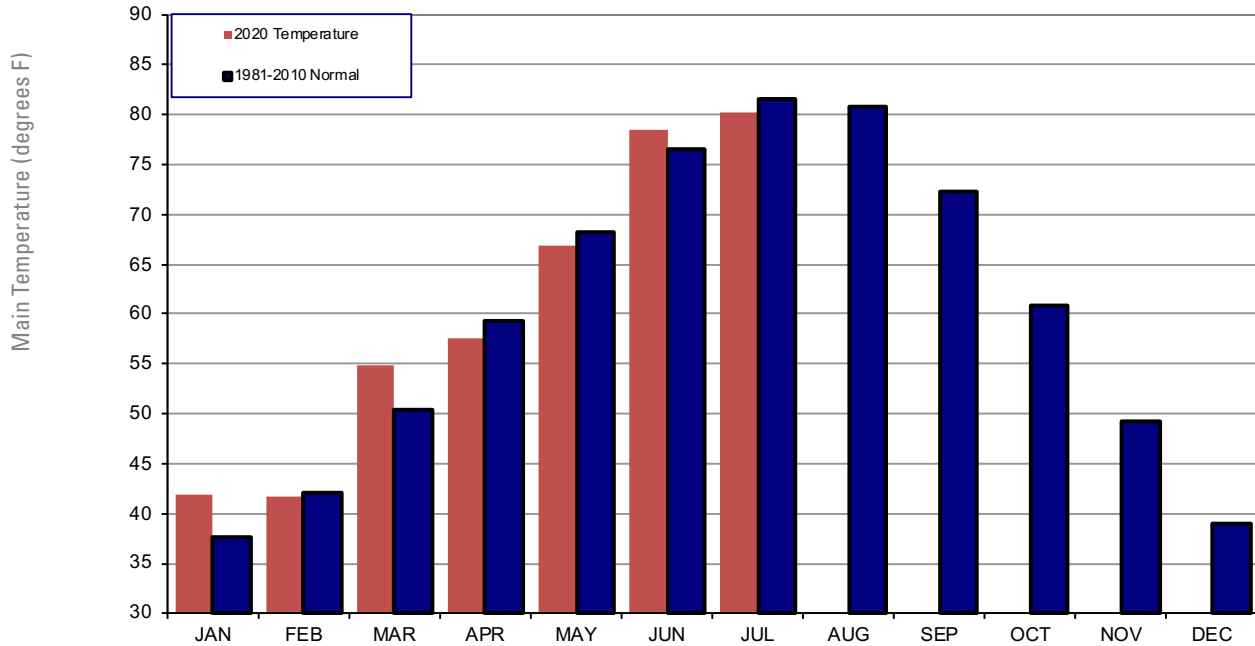
2020 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



July 2020 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Jul-19 (inches)
Panhandle	3.54	0.97	26th Wettest	8.81 (1950)	0.44 (1983)	1.70
North Central	7.80	4.99	2nd Wettest	8.59 (1950)	0.12 (1983)	1.19
Northeast	6.70	3.32	11th Wettest	9.52 (1959)	0.28 (1946)	3.39
West Central	3.20	0.94	32nd Wettest	7.63 (1950)	0.04 (1983)	2.15
Central	5.28	2.44	13th Wettest	9.61 (1950)	0.16 (1980)	0.90
East Central	6.00	2.71	16th Wettest	10.03 (1950)	0.36 (1993)	2.46
Southwest	3.21	0.94	30th Wettest	6.60 (1950)	0.03 (1980)	1.22
South Central	3.21	0.46	52nd Wettest	8.46 (1950)	0.11 (1998)	1.12
Southeast	3.73	0.11	55th Wettest	12.47 (1950)	0.19 (1993)	2.83
Statewide	4.84	1.96	16th Wettest	9.07 (1950)	0.42 (1980)	1.83

2020 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



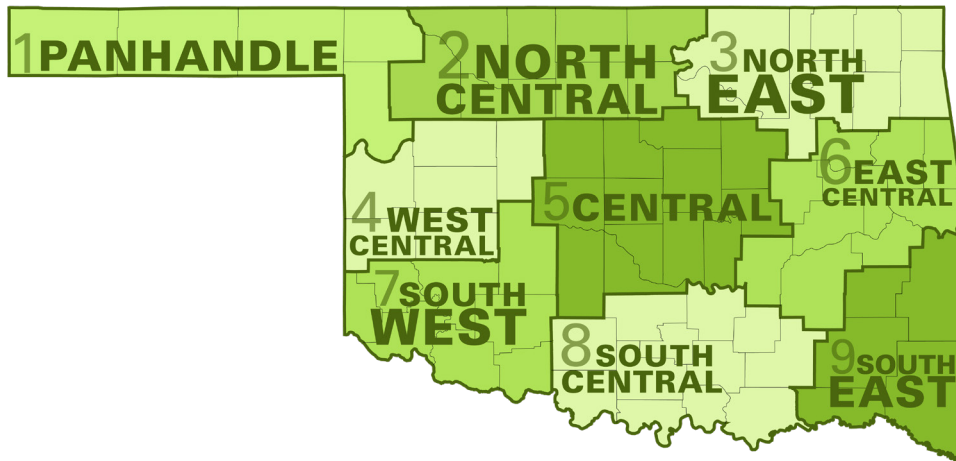
July 2020 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Jul-19 (F)
Panhandle	80.5	1.2	42nd Warmest	86.0 (1934)	72.8 (1906)	79.6
North Central	81.9	0.1	56th Warmest	89.6 (2011)	75.9 (1950)	80.9
Northeast	80.9	0.1	58th Coolest	89.3 (1954)	75.4 (1950)	79.7
West Central	83.6	1.8	29th Warmest	89.6 (2011)	75.8 (1906)	80.9
Central	82.0	0.1	60th Warmest	90.2 (2011)	76.7 (1950)	81.4
East Central	81.2	0.0	60th Coolest	88.9 (2011)	76.2 (1906)	80.0
Southwest	84.1	0.9	43rd Warmest	91.7 (2011)	78.0 (1908)	82.5
South Central	82.7	0.2	62nd Warmest	90.5 (2011)	77.9 (1950)	81.3
Southeast	82.1	1.7	35th Warmest	87.5 (2011)	76.0 (1905)	79.7
Statewide	82.0	0.5	54th Warmest	89.2 (2011)	76.3 (1906)	80.7

MESONET EXTREMES FOR JULY 2020

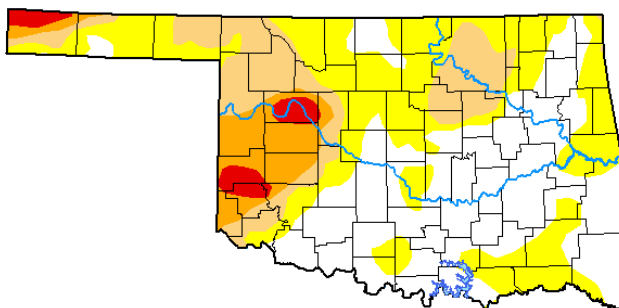
Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	108	14th	Arnett	56	31st	Kenton	6.77	Goodwell	1.53	15th	Kenton
North Central	108	11th	Alva	61	31st	Freedom	11.96	Breckinridge	3.36	10th	Medford
Northeast	97	11th	Tulsa	64	31st	Nowata	9.53	Bixby	2.43	11th	Porter
West Central	112	14th	Erick	62	31st	Camargo	8.37	Watonga	2.97	20th	Watonga
Central	101	11th	Kingfisher	62	7th	El Reno	9.15	Kingfisher	4.96	27th	Yukon
East Central	98	11th	Stigler	62	31st	Cookson	10.19	Okmulgee	4.67	29th	Okmulgee
Southwest	113	14th	Hollis	61	31st	Mangum	7.52	Walters	2.29	28th	Apache
South Central	102	11th	Ringling	66	30th	Fittstown	4.56	Centrahoma	1.65	12th	Ada
Southeast	101	11th	Clayton	66	31st	Mt Herman	5.06	Mt Herman	1.83	22nd	Broken Bow
Statewide	113	14th	Hollis	56	31st	Kenton	11.96	Breckinridge	4.96	27th	Yukon

Oklahoma Climate Divisions



U.S. Drought Monitor Oklahoma

July 28, 2020
(Released Thursday, Jul. 30, 2020)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	39.83	60.17	25.96	10.26	2.79	0.00
Last Week 07-21-2020	35.40	64.60	41.40	11.42	2.98	0.00
3 Months Ago 04-28-2020	85.96	14.04	3.94	2.27	0.00	0.00
Start of Calendar Year 12-31-2019	76.45	23.55	10.47	3.64	0.00	0.00
Start of Water Year 10-01-2019	71.94	28.06	11.08	1.01	0.00	0.00
One Year Ago 07-30-2019	81.30	18.70	5.67	0.00	0.00	0.00

Intensity:

- None
- 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. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

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NCEI/NOAA



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.

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

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