

June, normally a pillar of Oklahoma’s spring rainy season, was very much a disappointment in that regard. Unfortunately, that lack of significant moisture fueled a quick return to drought across parts of the state. Central Oklahoma became particularly dry with deficits of more than 8 inches accumulating since the beginning of May. According to preliminary data from the Oklahoma Mesonet, the month finished with a statewide average of 2.97 inches, 1.55 inches below normal to rank as the 43rd driest June since records began in 1895. Central Oklahoma’s average of 1.94 inches fell nearly 3 inches below normal to rank as that region’s 18th driest June. Oklahoma City experienced its second driest June and driest May-June period on record with 0.11 inches and 1.21 inches, respectively. The Mesonet site at Spencer recorded a hundredth of an inch during June, barely enough to wet the rain gauge. While most of the state was dry, there were a few areas that enjoyed a moisture surplus for the

Mother Nature made up for the disappointing rain totals by offering extended breaks from the summer heat. Highs were mostly in the 70s and 80s the weekend of June 23-25, and some highs only reached the 60s early in the month. Summer still peaked through at times, of course. The Mesonet recorded at least one triple-digit temperature on 14 of the 30 days in June, and heat index values soared as high as 112 degrees on a couple of occasions. The statewide average temperature was 76.7 degrees, 0.2 degrees above normal to rank as the 52nd coolest June on record. The month’s highest temperature was 106 degrees at Hooker on the 17th. The lowest temperature was 46 degrees at Kenton on June 14. The year was still on pace to finish as one of the warmest on record. The January-June statewide average of 58.6 degrees was 2.9 degrees above normal, the fourth warmest such period on record.

June 2017 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	106°F	Hooker, Hollis	17
Low Temperature	46°F	Kenton	14
High Precipitation	9.65 in.	Webbers Falls	--
Low Precipitation	0.01 in.	Spencer	--

month. Parts of east central Oklahoma finished 3-5 inches above normal, while isolated areas in the southwest and far western Panhandle came out ahead as well. Webbers Falls led the state with 9.65 inches during June. Despite the dry May and June, 2017 remained above normal through the first six months with a statewide average of 20.91 inches, the 26th wettest such period on record.

In spite of the slant towards dryness during June, there was still plenty of severe weather. The most intense storms were saved for the last week of the month. Hail to the size of baseballs was reported across southwestern Oklahoma on the 30th. There were even a couple of possible tornado sightings in the far western Panhandle on the 25th. The state’s tornado count for the year had climbed to 62 at the start of June according to preliminary data from the National Weather Service, including 50 that touched down during May. The 1950-2016 annual average is 56.

June 2017 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2017)
Month (Jun)	76.7°F	0.2°F	52nd Coolest
Year-to-Date (Jan-Jun)	58.6°F	2.8°F	4th Warmest

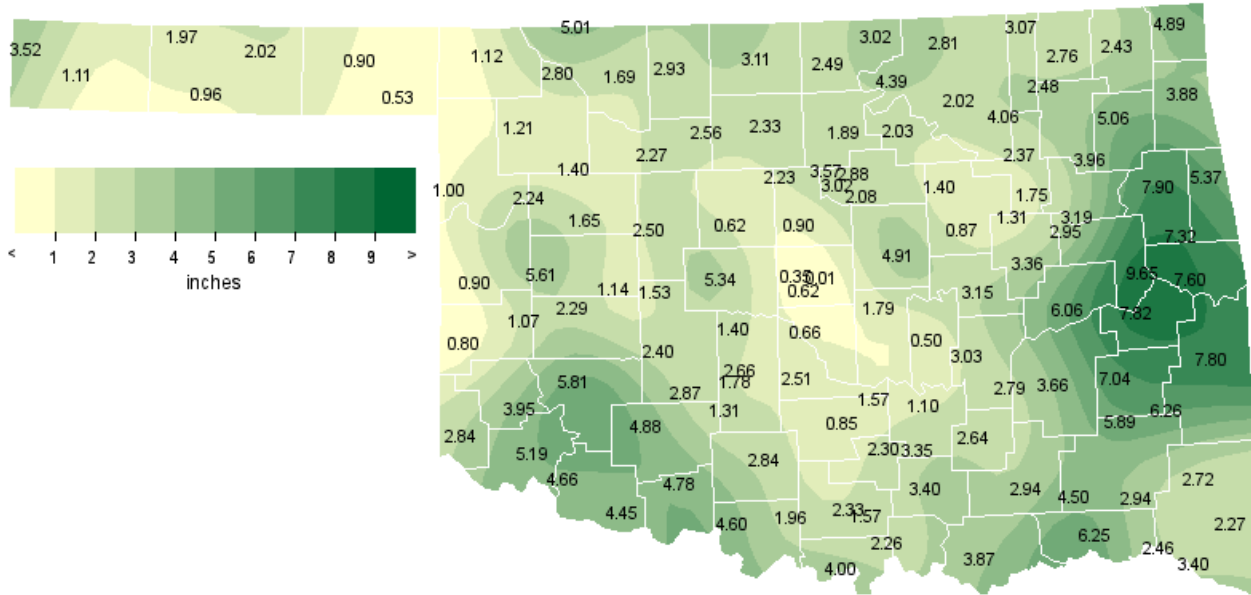
Precipitation

	Total	Depart.	Rank (1895-2017)
Month (Jun)	2.98 in.	-1.56 in.	43rd Driest
Year-to-Date (Jan-Jun)	21.28 in.	2.25 in.	24th Wettest

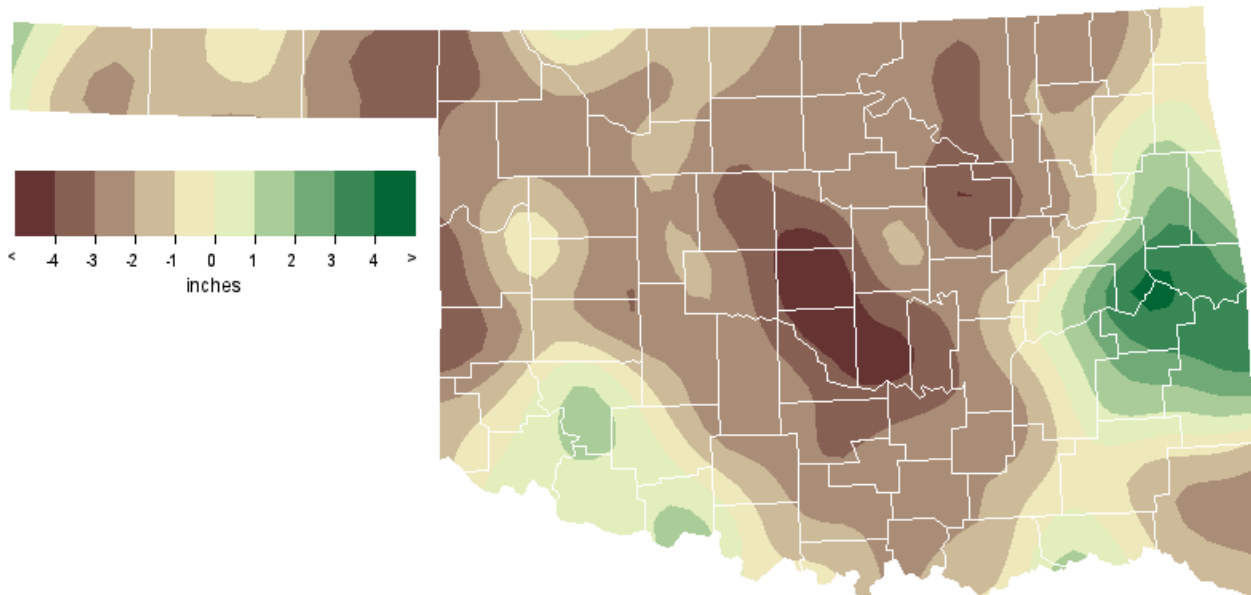
Depart. = departure from 30-year normal

The bursts of summer heat, combined with strong winds and lack of rainfall, created a “flash drought” scenario – a relatively rapid return to drought compared to the normal long-term development of the hazard. Per the U.S. Drought Monitor, the state progressed from no drought at the beginning of the month to 13 percent on June’s final report. The amount of the state in abnormally dry condition, signaling areas where drought could develop if significant moisture remained absent, exploded from 3 percent to 57 percent during the month.

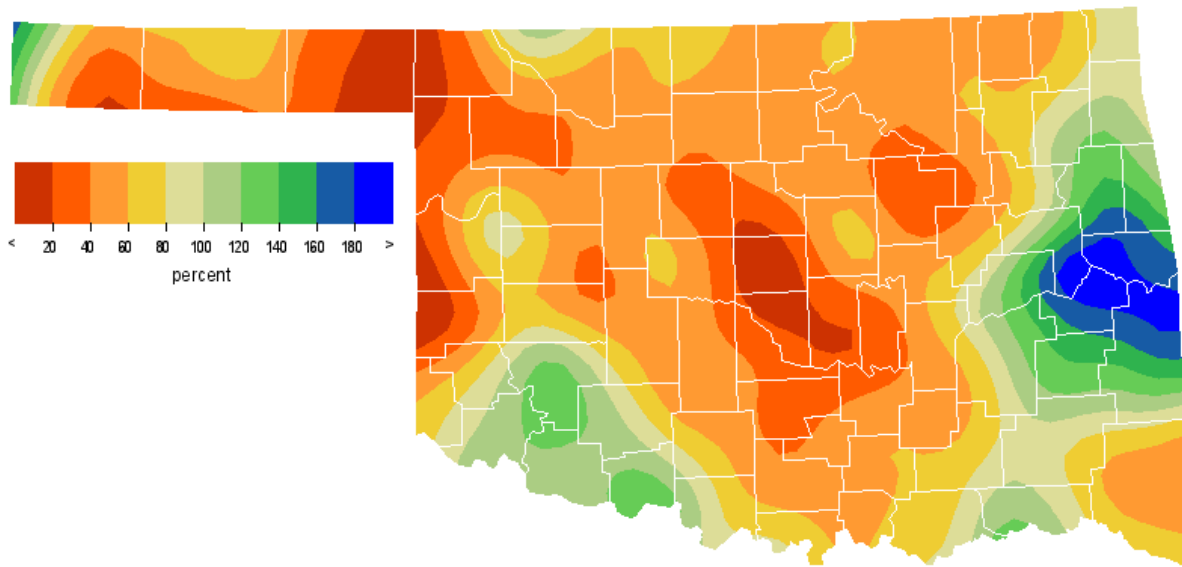
JUNE 2017 OBSERVED PRECIPITATION



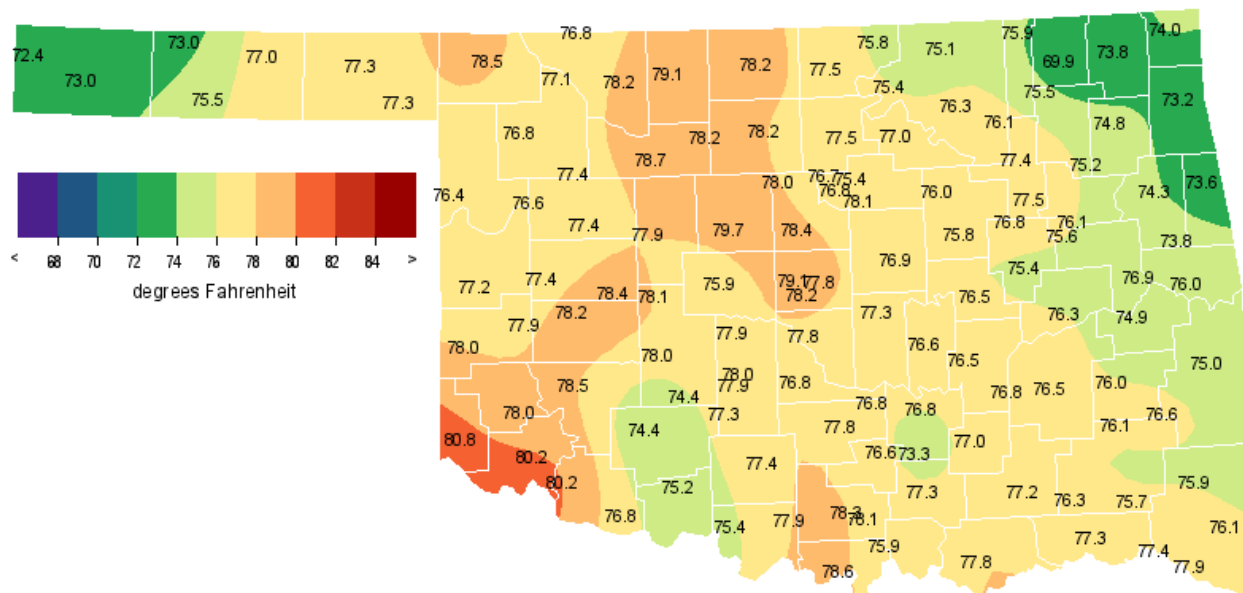
JUNE 2017 DEPARTURE FROM NORMAL PRECIPITATION



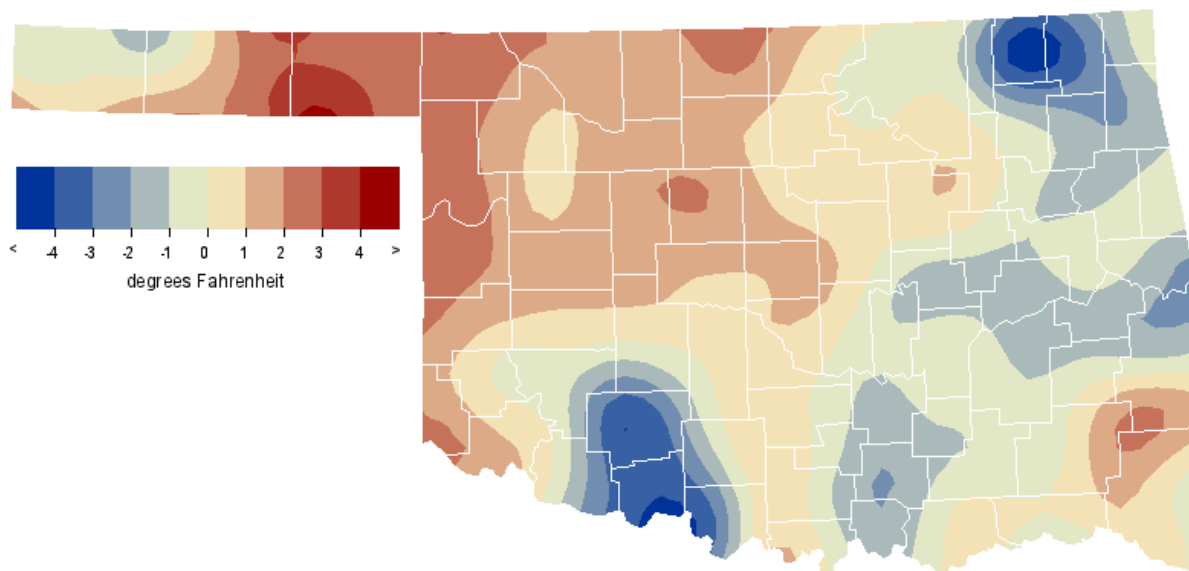
JUNE 2017 PERCENT OF NORMAL PRECIPITATION



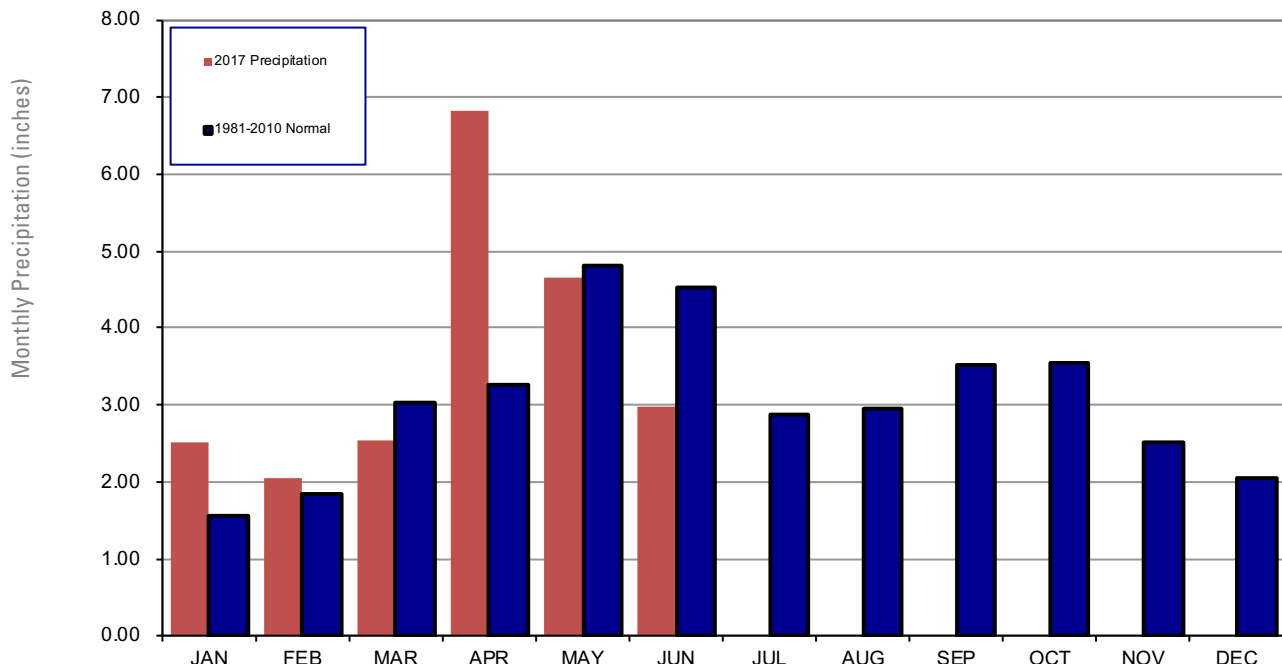
JUNE 2017 AVERAGE TEMPERATURE



JUNE 2017 DEPARTURE FROM NORMAL TEMPERATURE



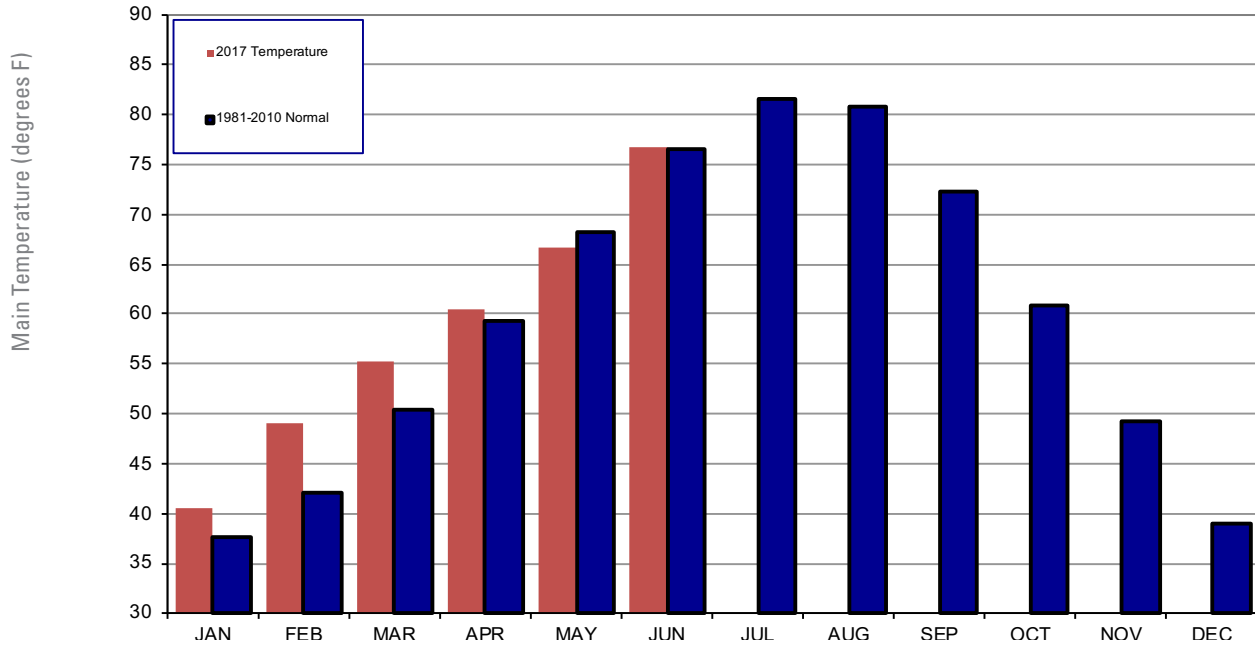
2017 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



June 2017 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Jun-16 (inches)
Panhandle	1.46	-1.71	21st Driest	7.09 (1962)	0.29 (1911)	3.41
North Central	2.52	-2.01	34th Driest	10.87 (2007)	0.40 (1933)	2.57
Northeast	3.20	-2.03	35th Driest	12.64 (2007)	0.28 (1933)	1.66
West Central	2.02	-2.13	31st Driest	8.90 (1962)	0.30 (1933)	4.29
Central	1.94	-2.98	18th Driest	12.63 (2007)	0.41 (1933)	2.52
East Central	5.29	0.49	39th Wettest	12.47 (1935)	0.69 (2011)	2.27
Southwest	3.94	-0.33	48th Wettest	9.96 (2007)	0.43 (1911)	5.51
South Central	2.60	-2.13	31st Driest	11.30 (1908)	0.25 (1933)	4.62
Southeast	4.68	0.03	38th Wettest	11.51 (1935)	0.77 (1933)	3.17
Statewide	2.98	-1.54	43rd Driest	9.52 (2007)	0.44 (1933)	3.26

2017 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



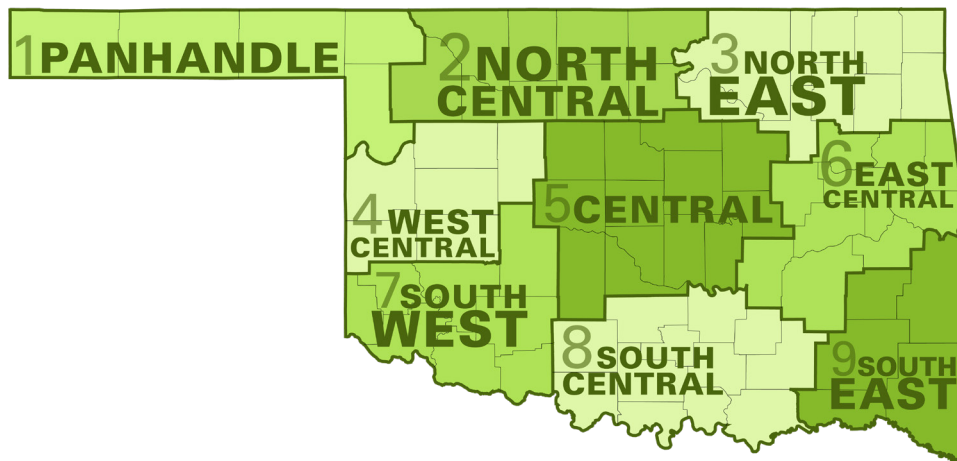
June 2017 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Jun-16 (F)
Panhandle	75.6	1.4	48th Warmest	82.9 (1953)	67.0 (1903)	76.6
North Central	77.7	1.1	42nd Warmest	85.2 (1953)	69.1 (1903)	79.8
Northeast	75.2	-0.6	40th Coolest	84.4 (1911)	70.3 (1903)	79.6
West Central	77.7	1.0	48th Warmest	85.7 (1953)	70.0 (1903)	79.0
Central	77.3	0.5	62nd Coolest	85.2 (1911)	71.1 (1903)	79.5
East Central	75.6	-0.8	33rd Coolest	84.5 (1953)	70.3 (1903)	79.6
Southwest	77.7	-0.6	45th Coolest	87.3 (2011)	72.4 (1903)	79.9
South Central	77.0	-0.9	34th Coolest	85.7 (1911)	72.0 (1903)	79.6
Southeast	76.4	0.3	58th Coolest	83.5 (1953)	70.6 (1903)	79.0
Statewide	76.7	0.2	52nd Coolest	84.8 (1953)	70.3 (1903)	79.2

MESONET EXTREMES FOR JUNE 2017

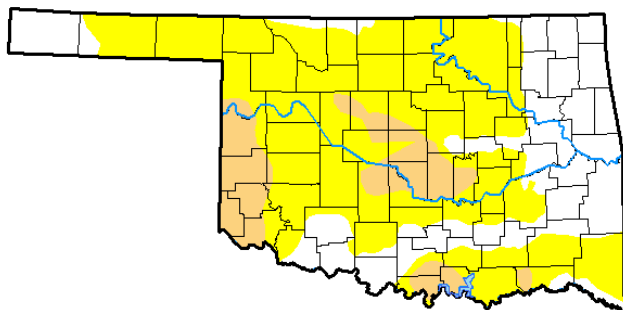
Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	106	17th	Hooker	46	14th	Kenton	3.52	Kenton	1.27	25th	Kenton
North Central	101	17th	Freedom	53	8th	Breckinridge	5.01	May Ranch	1.65	6th	Fairview
Northeast	95	15th	Copan	50	8th	Nowata	5.06	Pryor	2.43	4th	Burbank
West Central	103	17th	Erick	55	19th	Camargo	5.61	Butler	3.54	3rd	Butler
Central	101	16th	Kingfisher	49	8th	Bristow	5.34	El Reno	3.24	3rd	El Reno
East Central	96	16th	Webbers Falls	52	8th	Cookson	9.65	Webbers Falls	3.59	30th	Sallisaw
Southwest	106	17th	Hollis	56	8th	Mangum	5.81	Hobart	2.79	9th	Hobart
South Central	99	23rd	Burneyville	54	8th	Ada	4.60	Waurika	1.52	19th	Burneyville
Southeast	95	23rd	Antlers	52	8th	Wister	7.80	Wister	2.92	18th	Wister
Statewide	106	17th	Hooker	46	14th	Kenton	9.65	Webbers Falls	3.59	30th	Sallisaw

Oklahoma Climate Divisions



U.S. Drought Monitor Oklahoma

June 27, 2017
(Released Thursday, Jun. 29, 2017)
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	30.33	69.67	12.25	0.00	0.00	0.00
Last Week 06-20-2017	73.11	26.89	3.18	0.00	0.00	0.00
3 Months Ago 03-28-2017	7.24	92.76	77.80	36.07	2.99	0.00
Start of Calendar Year 01-03-2017	5.61	94.39	83.21	55.75	5.55	0.00
Start of Water Year 09-27-2016	57.82	42.18	19.04	3.05	0.00	0.00
One Year Ago 06-28-2016	77.65	22.35	5.86	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.

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<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/>



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