Oklahoma Monthly Climate Summary

MAY 2018

OKLAHOMA CLIMATOLOGICAL SURVEY

In defiance of spring, Mother Nature slipped right into summer during May, and broke a major record in doing so. Based on preliminary data from the Oklahoma Mesonet, the month finished as the warmest on record with a statewide average of 74.6 degrees, 6.4 degrees above normal. The previous record of 74 degrees was set back in 1962. This abrupt transition was especially jarring coming directly after the second coolest April on record. The heat was unkind to those battling severe drought conditions, but sporadic heavy rains did lend improvements to some. The statewide average precipitation total of 3.99 inches fell 0.83 inches below normal to rank as the 48th driest May on record.

As Mays go in Oklahoma, this year's chapter was relatively quiet, but severe weather did make itself known at times. Oklahoma's longest streak without a tornado to begin a year ended on May 2 with at least 15 tornado touchdowns.

May 2018 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	104°F	Grandfield	31
Low Temperature	37°F	Eva	5
High Precipitation	9.17 in.	Alva	--
Low Precipitation	0.87 in.	Kenton	--

The Hollis Mesonet site recorded a wind gust of 81 mph on the 14th, damaging trees and outbuildings. Baseball size hail propelled by winds up to 79 mph produced significant damage around Erick in Beckham County on the 29th.

May's high temperatures rarely reached the extreme category with only a few triple-digit readings during the month's final week. Temperatures consistently rose into the 90s, however, and heat index values thrived in the high-moisture environment common during May, topping out at 113 degrees at Grandfield on the 31st. That site recorded the month's highest temperature of 104 degrees that same day. The lowest temperature of 37 degrees was reported by the Eva Mesonet site on May 5. May also marks the end of climatological spring. Combined with a warm March and chilly April, the record-setting May propelled the season to the 30th warmest spring on record with a statewide average of 60.5 degrees, 1.2 degrees above normal. The first five months of the year came in 0.3 degrees above normal to rank as the 41st warmest January-May on record.

Rain totals were highly variable across the state, befitting the convective nature of spring rains in Oklahoma. Parts of southeastern Oklahoma fell close to 5 inches below normal, while isolated areas in northwestern Oklahoma were more than 5 inches above. The Mesonet site at Alva in Woods County recorded 9.2 inches for the month while the Fairview site 40 miles away received 1.5 inches. Those tight gradients were evident throughout Oklahoma. The 9.2 inches at Alva led the state, while Kenton brought up the rear with 0.9 inches. Drought was threatening to develop once again across eastern Oklahoma in those areas with significant deficits. Climatological spring ended as the 22nd driest on record with a statewide average of 8 inches, 3.12 inches below normal. The January-May period was the 49th driest with a statewide average deficit of 1.9 inches.

May 2018 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2018)
Month (May)	74.5°F	6.3°F	1st Warmest
Season-to-Date (Mar-May)	60.4°F	1.1°F	30th Warmest
Year-to-Date (Jan-May)	51.9°F	0.3°F	42nd Warmest

Precipitation

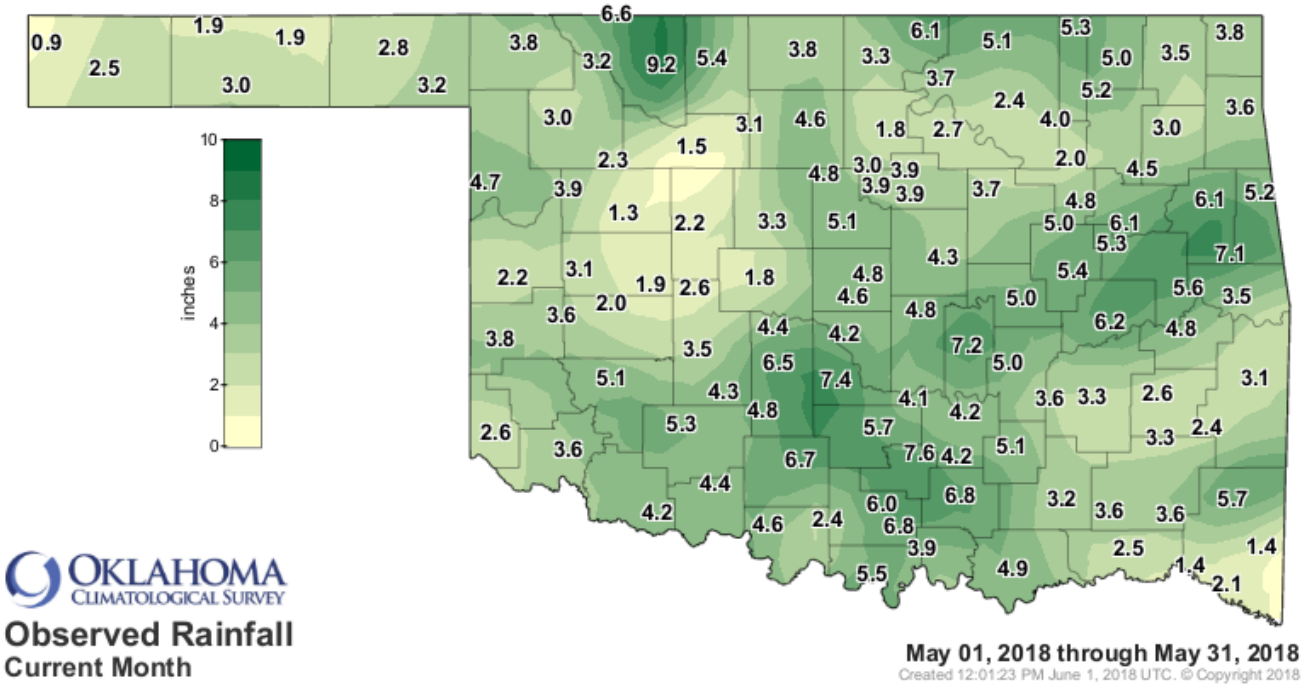
	Total	Depart.	Rank (1895-2018)
Month (May)	3.99 in.	-0.83 in.	48th Driest
Season-to-Date (Mar-May)	8.00 in.	-3.12 in.	22nd Driest
Year-to-Date (Jan-May)	12.60 in.	-1.91 in.	49th Driest

Depart. = departure from 30-year normal

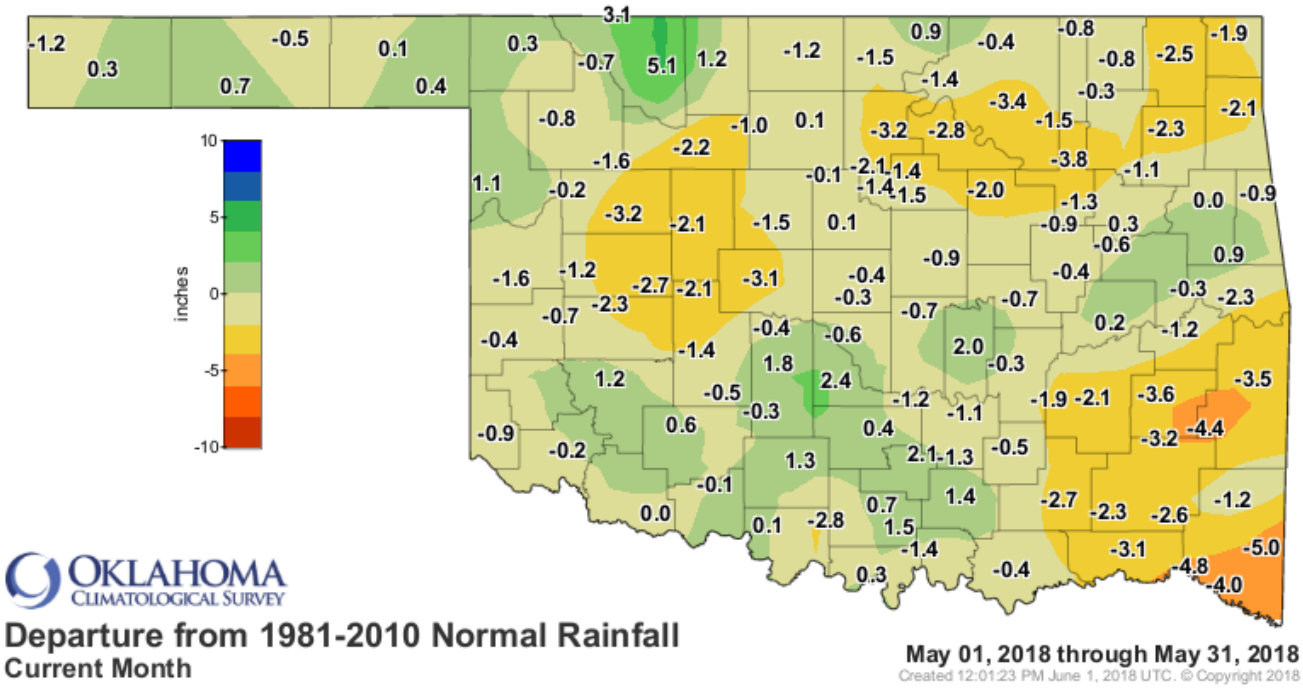
Drought decreased across the state by a mere 2 percent during May according to the U.S. Drought Monitor, but "Exceptional" drought – the Monitor's highest intensity level – dropped from 24 percent to 10 percent. A little over 45 percent of the state remained in some level of drought by the end of the month. The Climate Prediction Center (CPC) had

little good to say in their June outlooks. Their temperature outlook had greatly increased odds of above normal temperatures across the entire state, but especially the western half. The precipitation outlook indicated increased odds of below normal precipitation for Oklahoma, with higher odds across the western two-thirds. Those outlooks led to a CPC June drought outlook that called for drought to persist across the northwestern half of the state with development likely across the southeastern half.

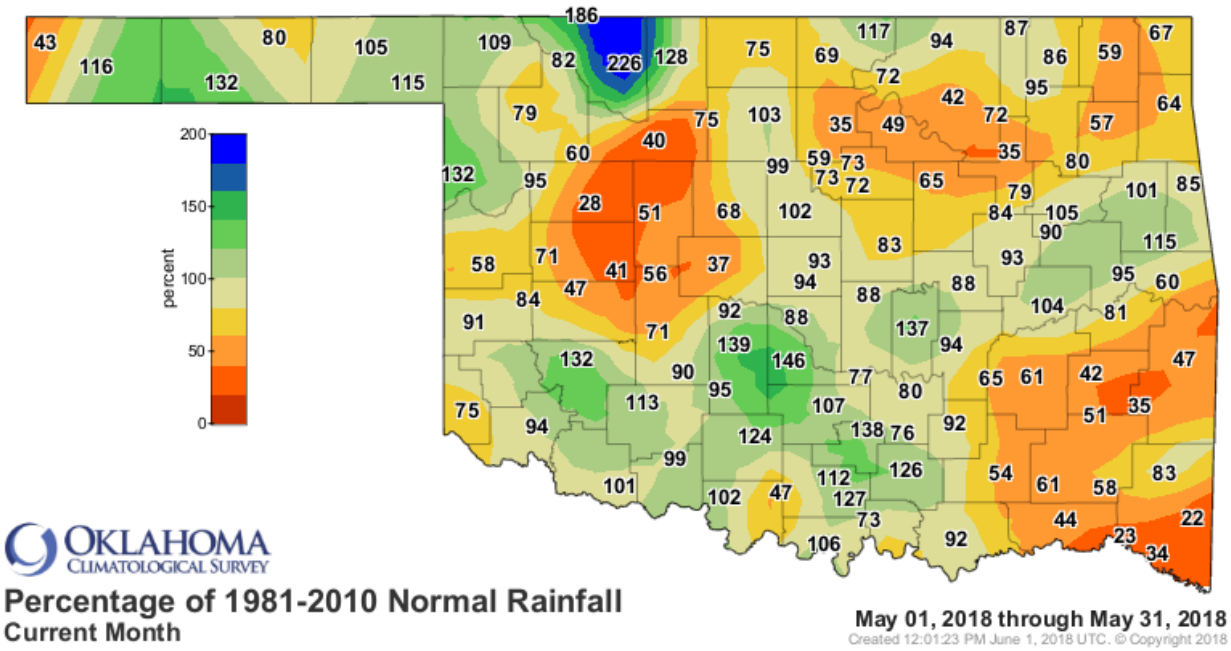
MAY 2018 OBSERVED PRECIPITATION



MAY 2018 DEPARTURE FROM NORMAL PRECIPITATION



MAY 2018 PERCENT OF NORMAL PRECIPITATION

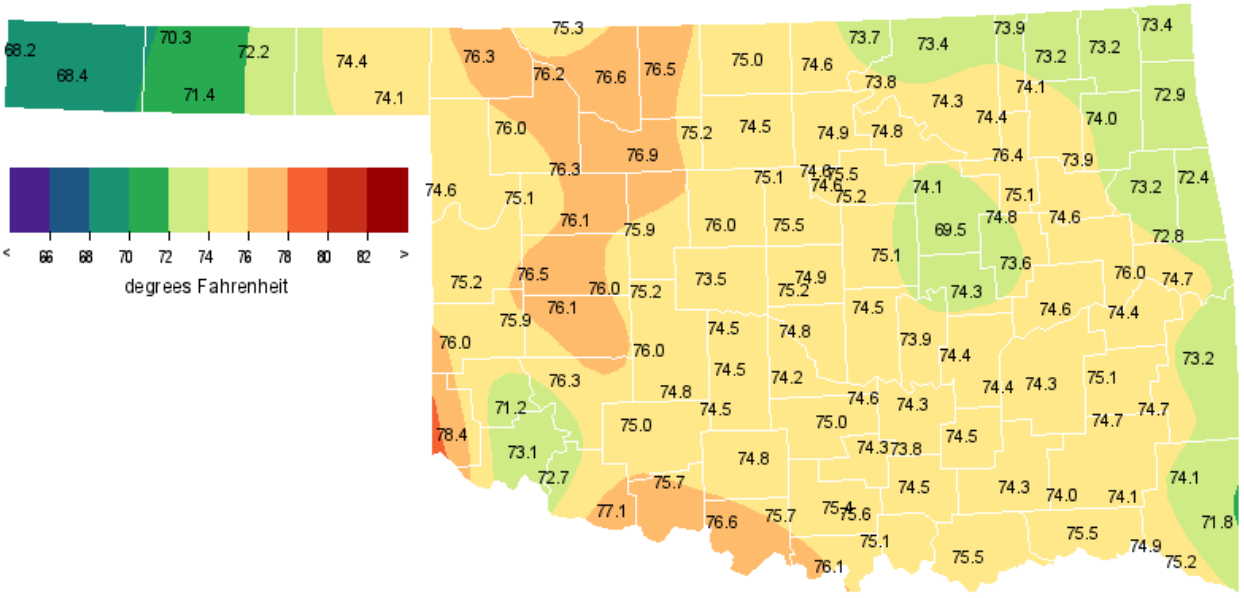


OKLAHOMA CLIMATOLOGICAL SURVEY

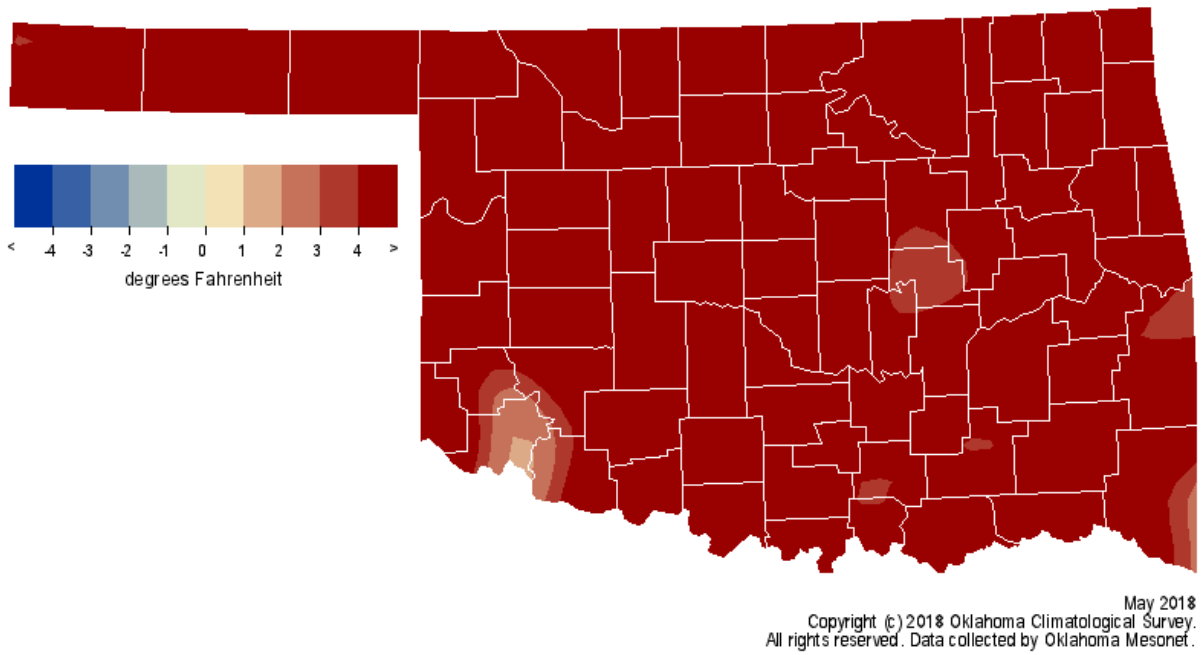
Percentage of 1981-2010 Normal Rainfall
Current Month

May 01, 2018 through May 31, 2018
Created 12:01:23 PM June 1, 2018 UTC. © Copyright 2018

MAY 2018 AVERAGE TEMPERATURE



MAY 2018 DEPARTURE FROM NORMAL TEMPERATURE

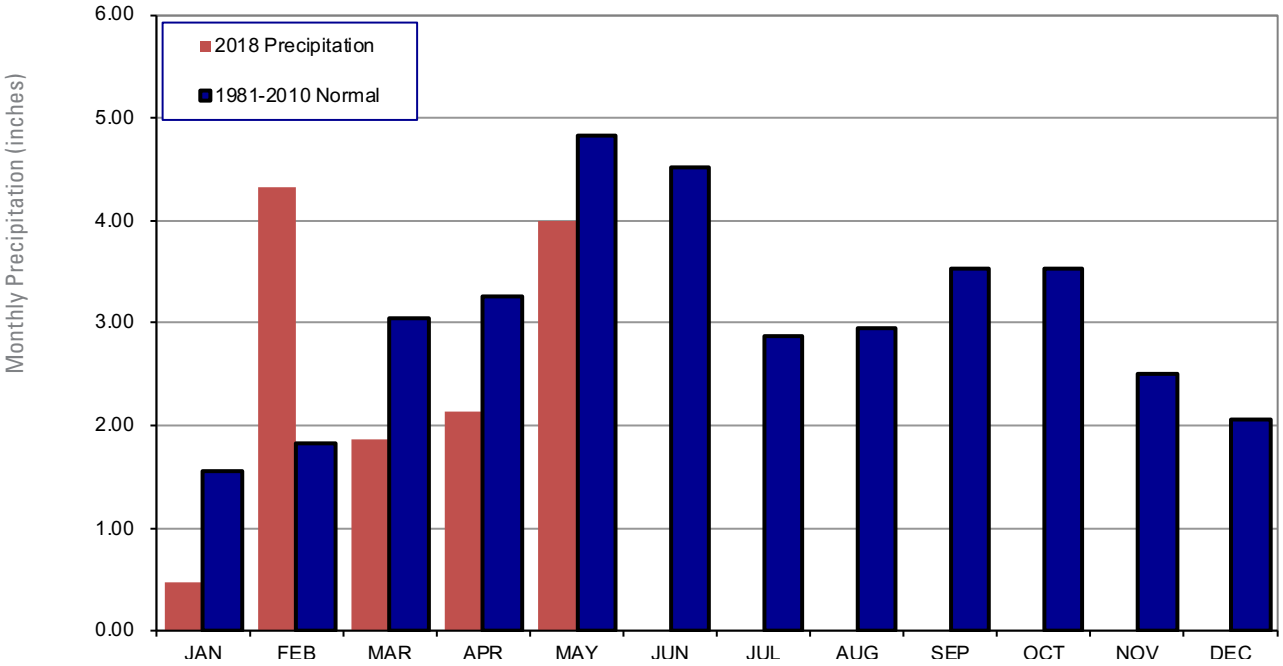


MESONET MONTHLY SUMMARY FOR MAY 2018

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	74.7	95	7	46	5	5	305	4.67	1.36	30
Beaver	74.5	98	26	42	5	8	302	2.82	.83	30
Boise City	68.4	94	26	39	5	32	137	2.47	1.12	23
Buffalo	76.3	97	9	48	4	4	353	3.82	.90	18
Eva	70.3	98	26	37	5	17	179	1.91	.92	30
NORTH CENTRAL										
Alva	76.6	99	14	47	5	1	361	9.17	2.93	23
Blackwell	74.7	95	26	45	5	2	302	3.31	1.69	31
Breckinridge	74.6	93	14	47	5	3	300	4.61	1.40	29
Cherokee	76.5	98	14	47	5	1	358	5.42	1.62	25
Fairview	76.9	99	26	48	5	0	370	1.51	.80	30
Freedom	76.2	98	26	47	4	2	348	3.23	1.24	29
Lahoma	75.2	97	14	48	6	1	317	3.13	.98	25
NORTHEAST										
Bixby	75.2	91	30	51	5	1	316	4.81	1.50	3
Burbank	73.8	92	26	47	5	1	272	3.73	1.41	31
Copan	73.9	91	9	53	5	1	278	5.33	1.81	20
Foraker	73.4	92	9	53	5	0	260	5.12	1.62	14
Inola	74.0	91	26	48	5	2	280	4.46	1.80	3
Jay	72.9	90	27	47	5	6	252	3.61	1.38	20
Miami	73.4	90	28	48	5	3	263	3.81	1.17	20
Nowata	73.1	92	28	47	5	2	254	5.01	1.57	20
WEST CENTRAL										
Bessie	76.2	98	26	51	5	1	347	2.04	.42	29
Butler	76.4	97	8	44	5	1	354	3.08	.94	15
Camargo	75.1	97	26	44	5	3	314	3.88	1.97	30
Cheyenne	75.3	96	26	50	4	3	321	2.21	.91	2
Elk City	76.0	96	7	51	5	0	340	3.57	1.27	14
CENTRAL										
Acme	74.6	93	30	47	5	4	300	4.77	1.26	3
Bowlegs	73.9	92	30	52	5	1	278	7.24	2.12	3
Bristow	74.3	93	30	47	5	****	****	1.89	.60	30
Lake Carl Blac	74.6	93	27	46	5	2	300	2.98	1.00	31
Chandler	75.0	93	30	50	5	0	312	4.34	1.25	3
Chickasha	74.5	95	30	50	5	1	297	6.45	2.71	15
El Reno	73.6	94	30	46	5	5	271	1.82	.69	2
Guthrie	75.5	93	30	49	5	0	326	5.09	1.87	31
Kingfisher	76.0	98	30	43	5	4	344	3.27	.95	31
Marena	74.6	91	7	51	5	0	296	3.85	1.23	31
Minco	74.5	94	30	51	5	1	297	4.39	2.82	2
EAST CENTRAL										
Cookson	72.9	90	30	48	5	6	249	7.12	2.20	15
Eufaula	74.6	93	30	53	5	2	298	6.16	2.36	2
Haskell	*****	***	***	***	***	****	****	5.31	1.94	3
Hectorville	74.8	91	30	54	5	1	304	5.03	2.22	3
Holdenville	74.5	92	30	55	5	1	297	4.96	1.16	2
McAlester	74.4	92	30	49	5	4	295	3.27	1.37	3
Okmulgee	73.7	92	30	51	5	3	271	5.37	2.39	3
SOUTHWEST										
Altus	78.7	103	31	52	5	0	424	3.62	1.81	15
Apache	74.8	95	31	52	5	0	304	4.32	1.45	2
Fort Cobb	75.9	96	30	50	5	0	339	3.50	1.27	15
Grandfield	77.2	104	31	52	6	0	377	4.23	1.34	2
Hinton	75.2	96	31	48	5	2	319	2.64	.95	15
Hobart	76.3	96	30	49	5	1	350	5.13	1.21	29
SOUTH CENTRAL										
Ada	74.3	93	30	50	5	2	289	4.20	1.14	3
Ardmore	75.7	93	31	54	5	0	331	6.84	2.52	3
Burneyville	76.1	97	30	51	6	0	346	5.54	3.11	3
Byars	74.6	93	30	54	5	1	300	4.10	1.33	20
Centrahoma	74.4	93	30	50	5	3	296	5.06	2.68	3
Durant	75.4	92	26	54	5	1	324	4.86	1.24	15
Fittstown	73.8	93	30	51	5	3	275	4.15	2.36	3
Ketchum Ranch	74.9	93	30	52	5	0	306	6.74	2.43	19
SOUTHEAST										
Antlers	74.0	92	30	48	6	3	282	3.56	1.24	15
Broken Bow	74.4	95	26	51	6	0	292	1.38	.72	3
Clayton	74.7	93	30	49	6	3	304	3.31	1.16	3
Cloudy	74.1	93	30	51	6	2	284	3.55	1.61	15
Hugo	75.5	92	30	54	5	1	325	2.49	.78	15
Idabel	75.3	97	30	52	6	0	318	2.05	1.28	3

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
Goodwell	71.4	97	26	41	5	16	214	2.95	1.02	30
Hooker	72.2	99	26	41	5	11	235	1.92	.65	28
Kenton	68.1	96	27	38	6	36	133	.87	.26	21
Slapout	74.1	97	7	45	4	8	290	3.23	.84	2
May Ranch	75.3	96	11	47	4	4	325	6.63	1.50	25
Medford	75.2	96	14	45	5	2	317	3.79	.85	29
Newkirk	73.7	92	14	50	5	2	271	6.12	2.26	14
Red Rock	74.9	94	27	48	5	1	308	1.78	.46	31
Seiling	76.3	99	26	45	5	2	354	2.34	.95	30
Woodward	76.0	97	26	50	4	3	343	2.95	.62	24
Pawnee	74.8	93	29	49	5	0	303	2.66	.69	2
Porter	74.5	91	26	53	5	1	297	6.14	2.17	3
Pryor	74.0	91	28	48	5	3	282	3.03	.76	3
Skiatook	74.4	90	26	55	5	1	293	3.98	.82	29
Talala	74.0	90	26	51	5	0	281	5.19	1.46	20
Tulsa	76.4	93	26	53	5	0	355	2.02	.51	31
Vinita	73.2	90	26	50	5	3	255	3.54	1.13	20
Wynona	74.3	92	30	52	5	0	289	2.40	.85	2
Erick	76.0	96	7	43	5	2	342	3.78	1.40	14
Putnam	76.1	98	26	52	4	1	346	1.27	.48	29
Watonga	75.9	95	31	53	5	1	338	2.15	.94	16
Weatherford	76.1	97	26	51	4	2	345	1.92	.55	15
Marshall	75.1	94	14	45	5	3	315	4.79	1.71	25
Norman	74.8	94	30	51	5	0	305	4.18	1.26	3
Oilton	74.1	92	30	46	5	3	285	3.65	1.07	29
OKC East	75.3	93	30	50	5	1	321	4.64	1.60	25
Oklahoma City	*****	***	***	***	***	****	****	*****	*****	***
Okemah	74.3	95	30	50	5	1	291	4.99	2.48	3
Perkins	75.3	93	30	49	5	0	318	3.92	1.48	31
Shawnee	74.5	94	30	52	5	0	296	4.79	.94	3
Spencer	74.9	92	30	51	5	1	308	4.80	1.56	25
Stillwater	75.5	93	27	48	5	0	325	3.88	1.04	2
Washington	74.3	92	30	52	5	1	287	7.43	2.07	3
Sallisaw	74.7	93	30	51	6	3	304	3.49	1.23	3
Stigler	74.4	92	30	51	5	1	293	4.78	1.45	15
Stuart	74.5	92	30	54	5	2	296	3.55	1.11	3
Tahlequah	73.1	91	28	48	5	4	256	6.11	2.51	3
Webbers Falls	76.0	95	30	53	5	1	342	5.63	1.56	15
Westville	72.4	88	28	48	5	4	233	5.17	2.23	3
Hollis	78.3	101	25	48	5	0	413	2.58	.81	20
Mangum	76.5	99	30	46	5	1	359	3.82	.79	20
Medicine Park	75.0	95	31	57	5	0	310	5.26	1.64	2
Tipton	78.4	103	31	52	5	0	416	3.25	1.29	3
Walters	75.7	97	30	53	5	0	333	4.35	1.99	19
Lane	74.3	92	30	50	6	3	292	3.17	1.38	15
Madill	75.2	93	30	50	6	1	316	3.93	1.70	3
Newport	75.3	94	30	53	5	0	320	6.04	1.49	15
Pauls Valley	75.0	94	30	53	5	0	311	5.67	1.86	15
Ringling	75.7	96	30	52	5	0	332	2.44	1.03	3
Sulphur	74.3	91	30	50	5	2	290	7.57	2.37	15
Tishomingo	74.6	92	30	52	5	1	298	6.82	2.55	3
Waurika	76.6	97	30	52	5	0	360	4.58	1.40	3
Mt Herman	74.2	92	30	52	6	1	285	5.70	3.73	22
Talihina	74.7	94	30	49	6	2	302	2.40	1.20	3
Valliant	74.8	96	30	49	6	0	304	1.41	.53	15
Wilburton	75.1	93	30	51	6	2	314	2.61	1.36	3
Wister	73.2	94	30	49	6	4	257	3.13	1.63	15

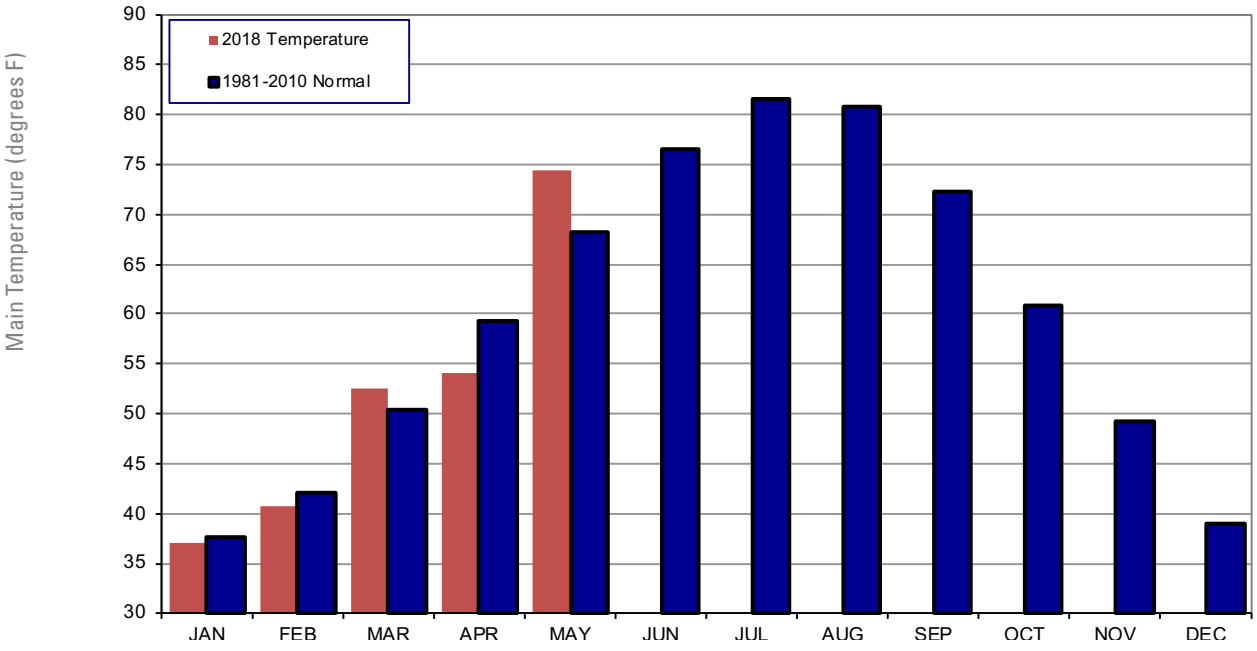
2018 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



May 2018 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	May-17 (inches)
Panhandle	2.74	0.04	52nd Wettest	7.12 (2015)	0.19 (2004)	2.78
North Central	4.15	-0.21	55th Wettest	11.11 (1957)	0.63 (1970)	4.26
Northeast	4.05	-1.64	43rd Driest	17.98 (1943)	1.45 (1911)	6.96
West Central	2.66	-1.41	41st Driest	12.10 (1982)	0.42 (1966)	2.94
Central	4.42	-0.60	56th Driest	15.50 (2015)	0.92 (1988)	4.18
East Central	5.07	-0.76	59th Driest	17.48 (2015)	1.56 (1921)	6.35
Southwest	3.88	-0.33	61st Wettest	16.40 (2015)	0.44 (1966)	2.54
South Central	5.11	-0.21	61st Wettest	20.69 (2015)	0.58 (1988)	5.76
Southeast	2.87	-3.28	14th Driest	20.03 (2015)	1.21 (1988)	3.98
Statewide	3.95	-0.87	46th Driest	14.42 (2015)	1.23 (1988)	4.49

2018 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



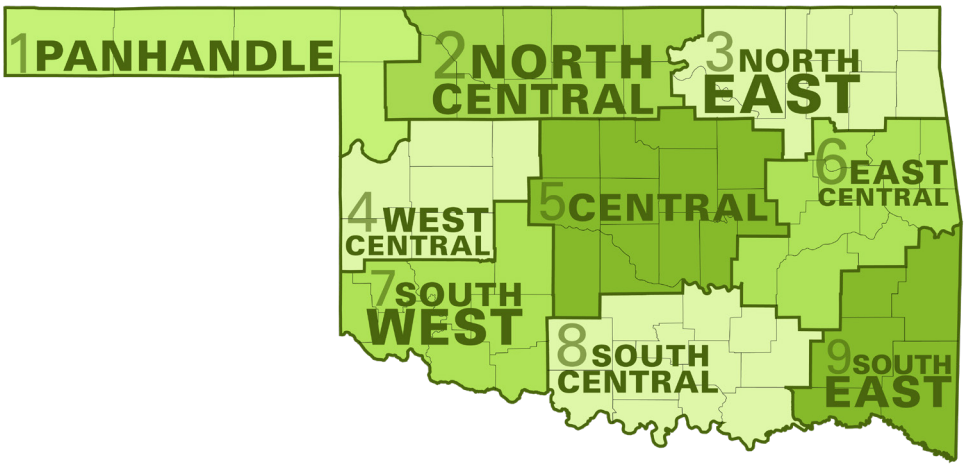
May 2018 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	May-17 (F)
Panhandle	72.2	7.1	1st Warmest	71.1 (1896)	58.0 (1907)	63.0
North Central	75.5	8.1	1st Warmest	74.5 (1962)	60.6 (1907)	65.4
Northeast	74.1	6.6	2nd Warmest	74.4 (1962)	61.7 (1917)	66.2
West Central	75.9	8.0	1st Warmest	75.0 (1896)	60.9 (1907)	66.7
Central	74.4	5.8	2nd Warmest	74.6 (1962)	62.0 (1907)	67.6
East Central	74.1	5.6	2nd Warmest	74.3 (1962)	63.2 (1917)	68.0
Southwest	76.6	6.6	1st Warmest	76.4 (1996)	63.5 (1907)	68.8
South Central	75.0	4.9	2nd Warmest	75.1 (1996)	63.5 (1907)	68.5
Southeast	74.5	5.9	1st Warmest	73.1 (1899)	62.8 (1917)	67.7
Statewide	74.7	6.5	1st Warmest	74.0 (1962)	61.9 (1907)	66.8

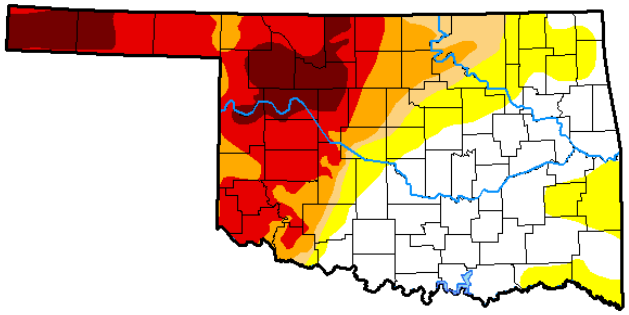
MESONET EXTREMES FOR MAY 2018

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	99	26th	Hooker	37	5th	Eva	4.67	Arnett	1.36	30th	Arnett
North Central	99	26th	Fairview	45	5th	Blackwell	9.17	Alva	2.93	23rd	Alva
Northeast	93	26th	Tulsa	47	5th	Jay	6.14	Porter	2.17	3rd	Porter
West Central	98	26th	Putnam	43	5th	Erick	3.88	Camargo	1.97	30th	Camargo
Central	98	30th	Kingfisher	43	5th	Kingfisher	7.43	Washington	2.82	2nd	Minco
East Central	95	30th	Webbers Falls	48	5th	Tahlequah	7.12	Cookson	2.51	3rd	Tahlequah
Southwest	104	31st	Grandfield	46	5th	Mangum	5.26	Medicine Park	1.99	19th	Walters
South Central	97	30th	Waurika	50	5th	Sulphur	7.57	Sulphur	3.11	3rd	Burneyville
Southeast	97	30th	Idabel	48	6th	Antlers	5.70	Mt Herman	3.73	22nd	Mt Herman
Statewide	104	31st	Grandfield	37	5th	Eva	9.17	Alva	3.73	22nd	Mt Herman

Oklahoma Climate Divisions



U.S. Drought Monitor
Oklahoma



May 29, 2018
(Released Thursday, May. 31, 2018)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	37.27	62.73	45.53	40.54	29.71	9.81
Last Week 05-22-2018	46.24	53.76	45.55	40.54	31.09	14.25
3 Months Ago 02-27-2018	7.72	92.28	66.20	43.87	32.91	0.00
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 05-30-2017	97.17	2.83	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:
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.

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

Oklahoma Climatological Survey is the State Climate Office for Oklahoma

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