Oklahoma Monthly Climate Summary

MARCH 2017

OKLAHOMA CLIMATOLOGICAL SURVEY

Although drought, severe storms and flooding rainfall all made their presence known during the month, March's weather story was dominated by fire. Several months of elevated fire danger came to a head March 6 with the ignition of four large wildfires across far northwestern Oklahoma and southern Kansas. The group of fires was labeled the "Northwest Oklahoma Complex." The wildfires, pressed by winds gusting to more than 60 mph, scorched a total of 779,292 acres. Approximately 472,000 acres of that total were in Kansas. The cost of the fires, both to property and lives, was tremendous. The Oklahoma Cooperative Extension Service estimates the economic impact of the fires at more than $16 million, including the loss of livestock, habitat and infrastructure. Losses to cattle operations alone were $14.6 million. The Extension totals did not include estimates for equipment or other losses. At least eight homes were destroyed by the fires in Oklahoma. Two Oklahomans died in the wildfires. A 39-year-old semitrailer truck driver from Enid died from smoke inhalation in the southern Kansas portion of the wildfires, and a 63-year-old woman suffered a fatal heart attack while fighting the fire on her farm near Buffalo.

March 2017 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	98°F	Butler	20
Low Temperature	14°F	Buffalo, Kenton	2, 7
High Precipitation	5.10 in.	Acme	--
Low Precipitation	0.65 in.	Kenton	--

The year's first confirmed tornado touched down near Bunch in Adair County on March 6. Another possible tornado was reported by a trained spotter east of Ada the evening of the 26th. A straight-line wind gust of 95 mph was reported by the Oklahoma Mesonet site at El Reno the evening of the 28th. Rain totals were highly variable, as is the custom with springtime thunderstorms. The western third of the state was the beneficiary of a moisture surplus with some spots reporting totals 1-2 inches above normal. Southeastern Oklahoma saw the biggest deficits, which reached 3-4 inches below normal in localized areas. The statewide average rainfall total was 2.54 inches, a half-inch below normal and the 54th wettest March on record. West central Oklahoma's average total of 3.04 inches was the 17th wettest March on record for that area while south central Oklahoma's 1.26 inches was their 20th driest. The Mesonet site at Acme led the state with 5.1 inches while Kenton and Fittstown brought up the rear at 0.7 inches.

Despite a relatively cooler final week, March finished decidedly warm. According to preliminary data from the Oklahoma Mesonet, the statewide average temperature was 55.1 degrees, 4.7 degrees above normal and the 10th warmest March since records began in 1895. The lowest temperature of the month, 14 degrees, was recorded at both Buffalo and Kenton. The award for highest reading during March went to Butler, which reached 98 degrees on the 20th. The first three months of 2017 rank as the second warmest on record at 5.2 degrees above normal.

March 2017 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2017)
Month (March)	55.3°F	4.9°F	9th Warmest
Year-to-Date (Jan-Mar)	48.8°F	5.3°F	2nd Warmest

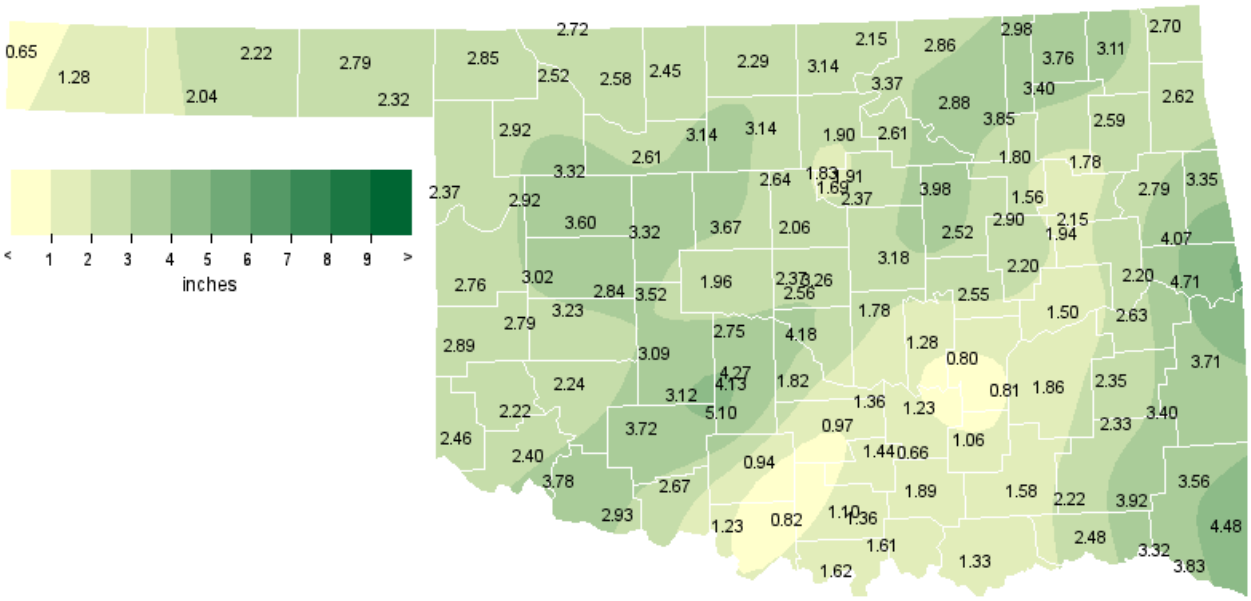
Precipitation

	Total	Depart.	Rank (1895-2017)
Month (March	2.54 in.	-0.50 in.	54th Wettest
Year-to-Date (Jan-Mar)	7.17 in.	0.74 in.	23rd Wettest

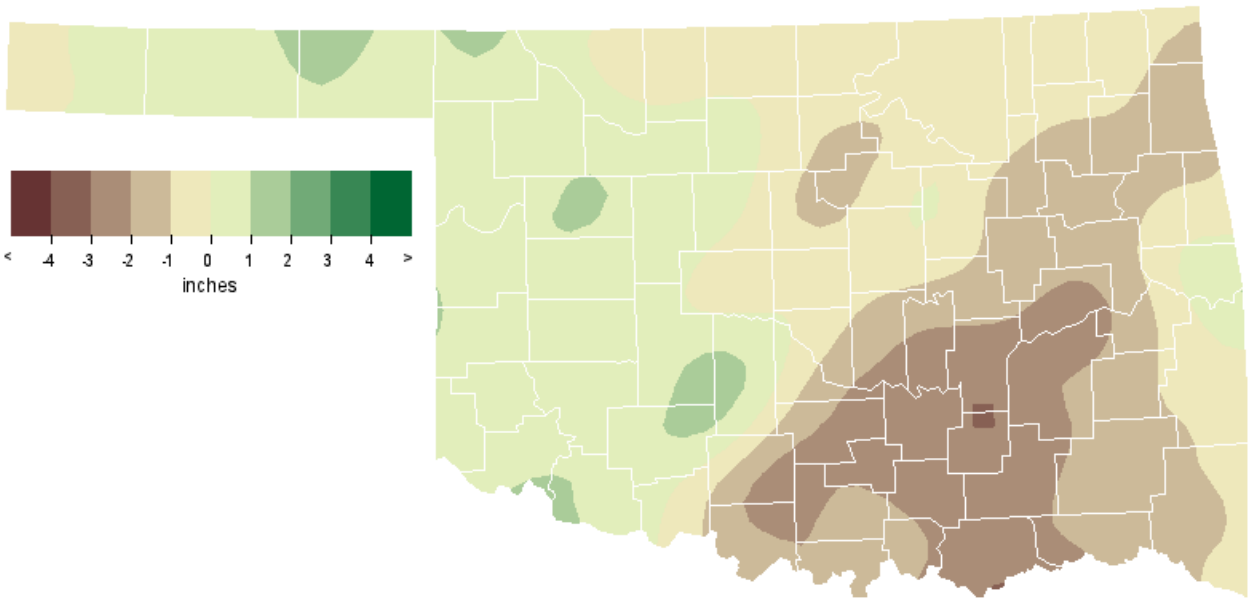
Depart. = departure from 30-year normal

The drought situation was significantly improved across the northwestern half of the state by the end of March, even if it was not reflected in the month's final Drought Monitor report. While 73 percent of the state was considered in drought of at least moderate intensify at the end of February, that number had increased to 81 percent by March 21. The amount of severe-extreme drought increased from 29 percent to 46 percent during that period. Thanks to some hefty rains, that total had decreased to 36 percent on the last March report, with more improvements expected on the first April report. At the end of March, 78 percent of the state was considered in drought.

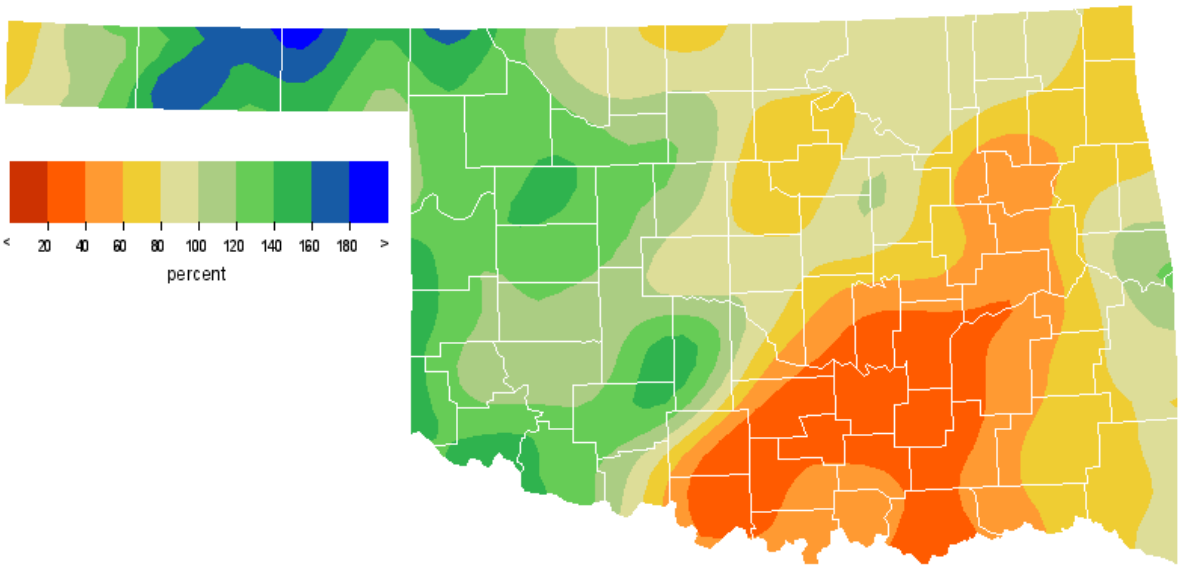
MARCH 2017 OBSERVED PRECIPITATION



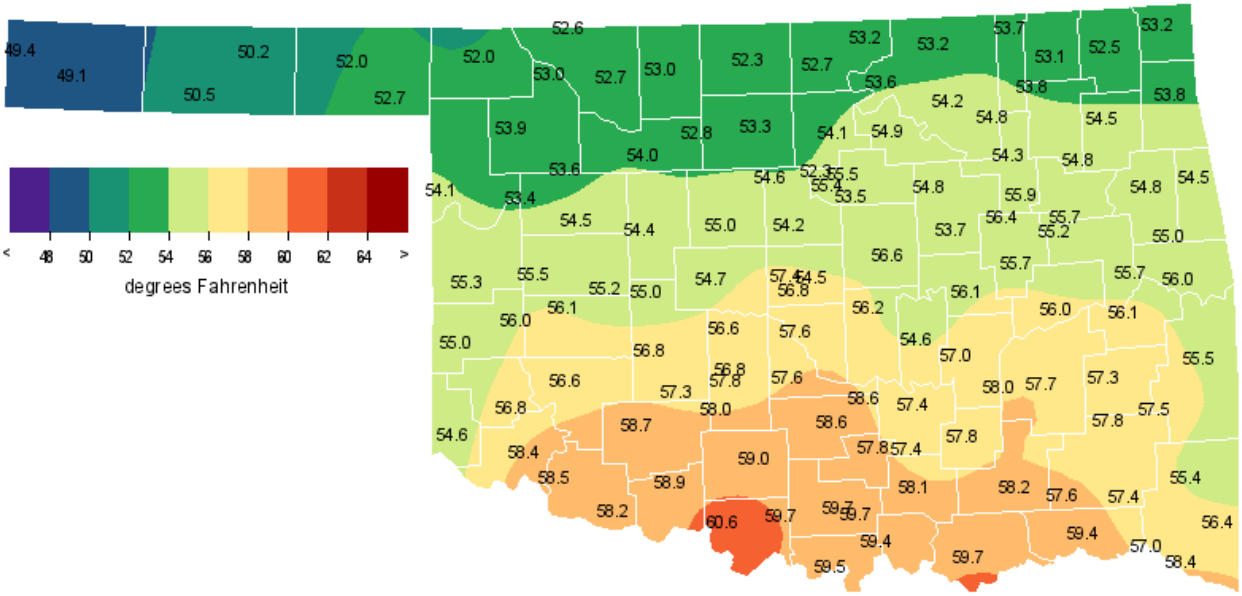
MARCH 2017 DEPARTURE FROM NORMAL PRECIPITATION



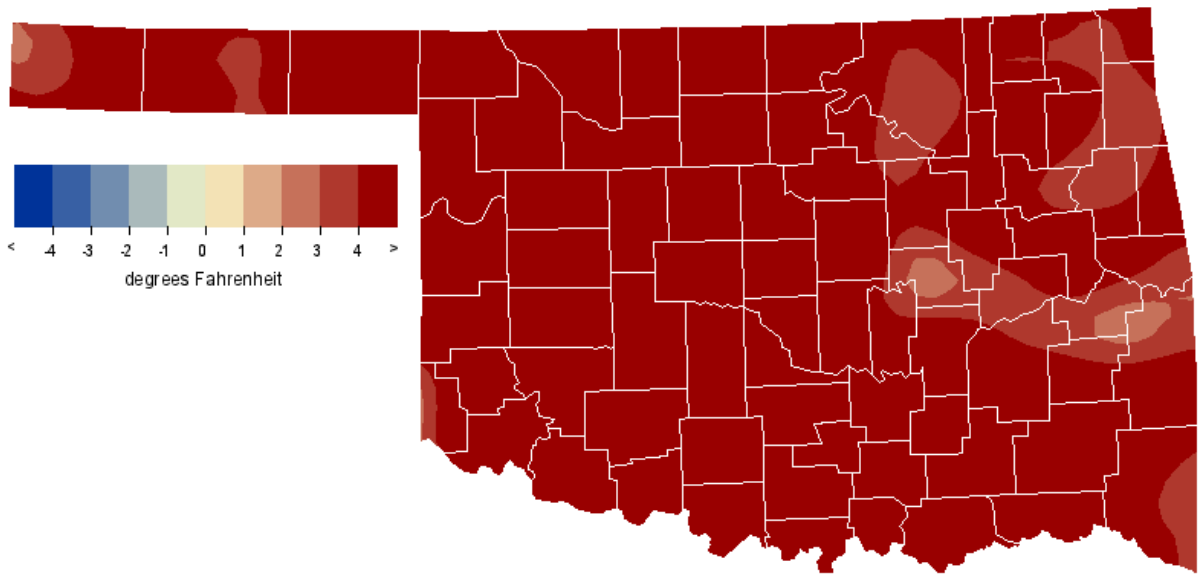
MARCH 2017 PERCENT OF NORMAL PRECIPITATION



MARCH 2017 AVERAGE TEMPERATURE



MARCH 2017 DEPARTURE FROM NORMAL TEMPERATURE

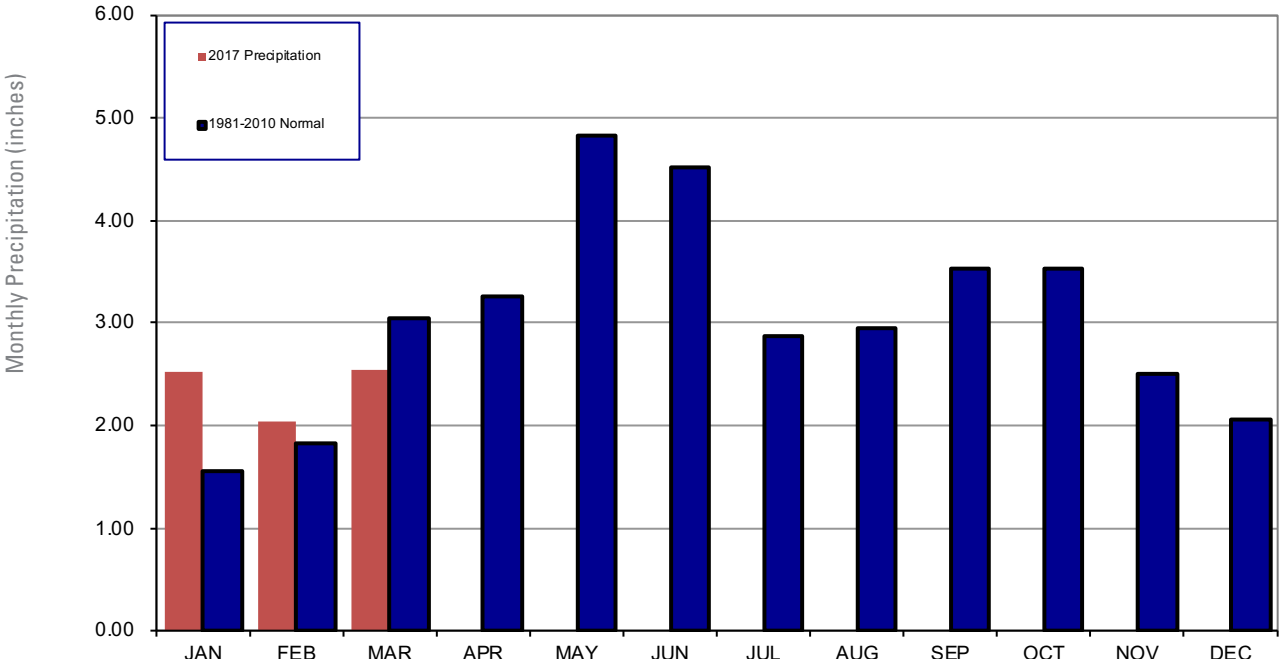


MESONET MONTHLY SUMMARY FOR MARCH 2017

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	54.0	93	19	21	12	363	23	2.37	1.54	28
Beaver	52.0	97	19	15	2	421	18	2.79	1.65	28
Boise City	49.1	87	19	16	7	492	0	1.28	.59	28
Buffalo	52.1	96	19	14	2	419	19	2.85	1.50	28
Eva	48.9	94	19	15	7	507	7	3.70	2.02	23
NORTH CENTRAL										
Alva	52.6	94	19	19	2	405	21	2.58	1.80	28
Blackwell	52.7	89	19	21	2	399	19	3.14	2.17	28
Breckinridge	53.3	89	20	22	2	382	20	3.14	2.28	28
Cherokee	53.0	90	19	22	2	387	16	2.45	1.86	28
Fairview	54.0	89	20	24	2	369	27	2.61	1.92	28
Freedom	52.9	93	19	19	2	395	20	2.52	1.50	28
Lahoma	52.8	88	19	26	15	391	14	3.14	2.53	28
NORTHEAST										
Bixby	55.9	91	20	27	2	316	35	1.56	.48	6
Burbank	53.5	89	20	24	12	378	23	3.37	1.41	26
Copan	53.7	89	20	23	12	373	21	2.98	1.03	29
Foraker	53.1	89	19	23	12	388	20	2.86	1.35	29
Inola	54.7	89	20	25	2	341	22	1.78	.65	11
Jay	53.8	85	20	25	15	365	17	2.62	.58	11
Miami	53.2	85	20	23	15	383	16	2.70	.56	27
Nowata	53.1	89	20	21	2	387	17	3.76	1.66	29
WEST CENTRAL										
Bessie	56.1	94	20	27	14	310	33	3.23	2.34	28
Butler	55.5	98	20	19	2	329	33	3.02	1.69	28
Camargo	53.5	94	20	17	2	379	21	2.92	1.95	28
Cheyenne	55.3	95	20	25	15	334	32	2.76	1.39	28
Elk City	56.0	95	20	28	12	305	27	2.79	1.76	28
CENTRAL										
Acme	58.0	90	20	24	2	264	48	5.10	4.20	28
Bowlegs	56.4	92	20	23	2	****	****	1.28	.76	29
Bristow	55.4	91	20	22	2	****	****	2.52	.91	29
Lake Carl Blac	54.1	93	20	21	2	****	****	1.83	.88	28
Chandler	56.5	92	20	25	2	308	46	3.18	1.56	29
Chickasha	56.8	89	20	23	2	295	40	4.27	3.30	28
El Reno	54.7	92	20	22	14	348	29	1.96	1.11	28
Guthrie	56.0	91	20	28	2	****	****	2.06	.95	28
Kingfisher	55.1	91	20	24	2	338	30	3.67	2.55	28
Marena	55.4	92	20	26	12	339	41	1.69	.81	28
Minco	56.5	90	20	28	15	294	31	2.75	1.93	28
Marshall	54.6	92	20	23	2	355	32	2.64	1.77	28
EAST CENTRAL										
Cookson	55.1	88	20	25	12	334	26	4.07	1.46	24
Eufaula	57.8	89	20	28	14	****	****	1.50	.44	26
Haskell	55.2	89	20	25	2	331	27	1.94	.53	6
Hectorville	56.4	90	20	28	14	303	37	2.90	.97	25
Holdenville	57.0	91	20	28	14	288	40	.80	.49	29
McAlester	57.7	90	20	25	2	271	46	1.86	.47	7
Okmulgee	55.8	91	20	24	2	322	36	2.20	.69	26
SOUTHWEST										
Altus	58.4	94	20	27	2	249	44	2.40	2.00	28
Apache	57.3	91	20	28	14	279	39	3.12	2.36	28
Fort Cobb	56.8	90	20	25	2	286	34	3.09	2.41	28
Grandfield	58.2	91	20	27	2	249	39	2.93	2.69	28
Hinton	55.0	90	20	26	14	335	23	3.52	2.81	28
Hobart	56.6	90	20	25	2	295	35	2.24	1.74	28
SOUTH CENTRAL										
Ada	57.4	91	20	25	2	278	43	1.23	.60	29
Ardmore	59.7	93	20	29	14	219	56	1.36	1.14	29
Burneyville	59.5	91	20	25	14	230	59	1.62	.90	29
Byars	58.6	91	20	28	14	249	52	1.36	1.13	29
Centrahoma	57.8	88	20	25	2	261	38	1.06	.37	26
Durant	59.7	88	20	30	14	206	41	1.33	.29	24
Fittstown	57.4	89	20	28	14	271	36	.66	.48	29
Ketchum Ranch	59.1	91	20	29	14	240	56	.94	.87	29
SOUTHEAST										
Antlers	57.7	89	20	23	2	257	30	2.22	.95	24
Broken Bow	58.3	87	20	27	14	****	****	4.48	1.88	24
Clayton	57.7	88	20	26	2	265	39	2.33	.72	24
Cloudy	57.5	86	20	27	2	255	22	3.92	1.86	24
Hugo	59.3	87	20	31	14	212	37	2.48	.69	24
Idabel	58.4	85	20	28	2	234	30	3.83	1.42	24

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
Goodwell	50.6	93	19	19	2	457	10	2.04	.98	28
Hooker	50.2	94	19	16	1	466	8	2.22	1.20	28
Kenton	49.4	87	19	14	7	485	1	.65	.36	31
Slapout	52.7	95	19	19	12	399	18	2.32	1.15	29
May Ranch	52.6	94	19	23	15	405	20	2.72	1.62	28
Medford	52.2	88	19	23	2	409	12	2.29	1.74	28
Newkirk	53.2	89	19	25	12	384	18	2.15	.91	28
Red Rock	54.2	91	20	23	14	368	35	1.90	.92	28
Seiling	53.6	92	20	19	2	381	29	3.32	2.24	28
Woodward	54.0	93	19	22	2	369	26	2.92	1.84	28
Pawnee	54.8	92	20	24	2	352	37	2.61	1.23	29
Porter	55.7	89	20	27	14	316	29	2.15	.54	11
Pryor	54.5	89	20	24	12	348	21	2.59	.59	25
Skiatook	54.8	91	20	27	12	344	28	3.85	2.16	29
Talala	53.8	91	20	25	12	368	20	3.40	1.25	29
Tulsa	56.1	91	20	27	12	****	****	1.80	.42	6
Vinita	52.5	87	20	23	15	402	15	3.11	.84	25
Wynona	54.2	92	20	25	2	364	30	2.88	1.14	29
Erick	55.0	96	20	17	2	339	30	2.89	1.91	28
Putnam	54.4	95	20	25	15	359	32	3.60	2.53	28
Watonga	54.4	92	20	25	15	357	29	3.32	2.31	28
Weatherford	55.1	91	20	25	15	332	26	2.84	2.22	28
Ninnekah	57.8	91	20	24	2	273	49	4.13	3.49	28
Norman	57.6	90	20	26	2	278	47	4.18	3.29	28
Oilton	54.8	93	20	22	2	358	41	3.98	1.89	28
OKC East	56.8	90	20	26	2	302	47	2.56	1.64	28
OKC North	57.3	90	20	28	14	288	50	2.37	1.62	28
Okemah	56.0	90	20	25	2	315	37	2.55	.92	29
Perkins	55.3	91	20	26	2	****	****	2.37	1.18	28
Shawnee	56.2	89	20	27	2	308	36	1.78	.92	29
Spencer	56.4	90	20	27	14	****	****	3.26	2.30	28
Stillwater	55.5	93	20	24	2	341	46	1.91	.95	28
Washington	57.6	90	20	27	2	274	45	1.82	.83	28
Sallisaw	56.0	89	20	25	2	303	24	4.71	1.92	24
Stigler	56.1	90	20	24	2	312	35	2.63	.86	26
Stuart	58.0	89	20	29	14	263	46	.81	.19	26
Tahlequah	54.7	86	20	25	2	340	22	2.79	.72	11
Webbers Falls	55.6	88	20	27	2	314	24	2.20	.61	26
Westville	54.5	86	20	28	15	344	18	3.35	.79	24
Hollis	56.5	95	20	25	2	****	****	2.46	1.42	28
Mangum	56.8	94	20	20	2	287	32	2.22	1.58	28
Medicine Park	58.6	90	20	31	15	240	43	3.72	3.31	28
Tipton	58.5	92	20	27	2	244	42	3.78	3.61	28
Walters	59.0	91	20	29	14	235	47	2.67	2.23	28
Lane	58.1	88	20	27	2	247	34	1.58	.41	24
Madill	59.4	89	20	27	2	222	48	1.61	.70	26
Newport	59.8	92	20	31	14	214	52	1.10	.93	29
Pauls Valley	58.6	92	20	27	2	250	53	.97	.90	29
Ringling	59.7	91	20	29	14	222	58	.82	.78	29
Sulphur	57.8	90	20	24	2	265	41	1.44	1.30	29
Tishomingo	58.1	88	20	27	2	248	35	1.89	1.07	26
Waurika	60.6	94	20	27	2	206	69	1.23	1.17	29
Mt Herman	57.3	83	20	28	2	****	****	3.56	1.49	24
Talihina	57.5	87	20	25	2	269	36	3.40	1.45	24
Valliant	58.8	86	20	28	2	****	****	3.32	1.15	26
Wilburton	57.3	89	20	26	2	276	37	2.35	.78	24
Wister	55.5	88	20	23	2	319	23	3.71	1.92	24

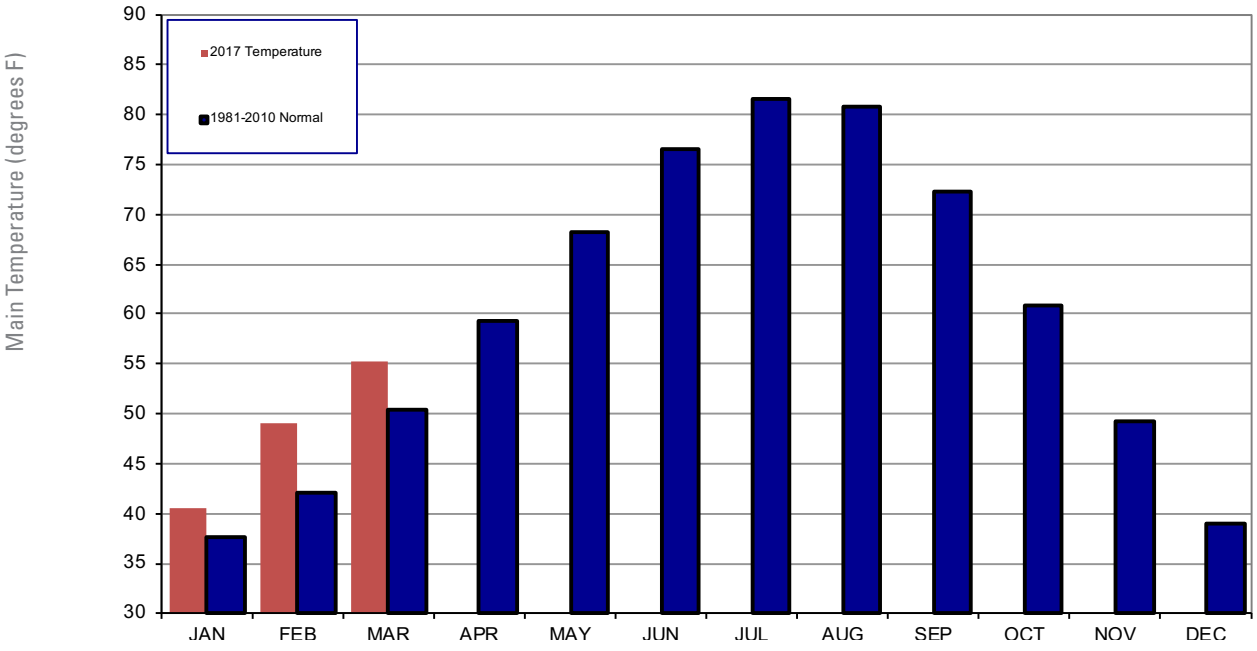
2017 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



March 2017 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Mar-16 (inches)
Panhandle	2.06	0.53	20th Wettest	5.66 (1973)	0.01 (1936)	0.36
North Central	2.68	0.01	27th Wettest	8.27 (1973)	0.00 (1936)	1.19
Northeast	2.75	-0.76	62nd Driest	9.33 (1973)	0.33 (1971)	2.55
West Central	3.04	0.75	17th Wettest	6.76 (1973)	0.00 (1971)	1.20
Central	2.78	-0.36	45th Wettest	7.45 (1990)	0.10 (1971)	2.01
East Central	2.44	-1.44	40th Driest	10.02 (1945)	0.52 (1941)	3.75
Southwest	2.92	0.55	21st Wettest	5.61 (1973)	0.00 (1940)	1.35
South Central	1.26	-2.22	20th Driest	8.15 (1945)	0.28 (1950)	3.81
Southeast	3.24	-1.27	46th Driest	12.50 (1945)	0.96 (2011)	6.83
Statewide	2.54	-0.50	54th Wettest	7.43 (1973)	0.39 (1971)	2.49

2017 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



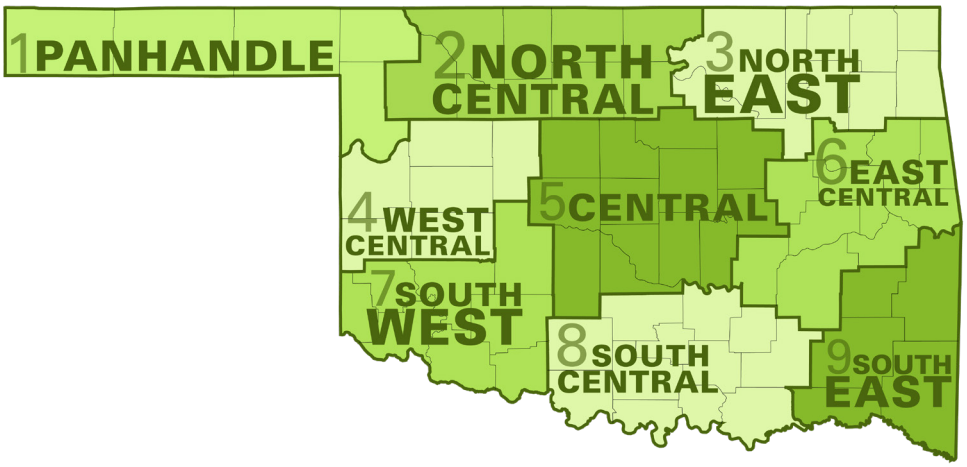
March 2017 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Mar-16 (F)
Panhandle	51.2	4.8	10th Warmest	55.4 (2012)	34.1 (1958)	50.9
North Central	53.2	4.9	11th Warmest	58.5 (2012)	36.0 (1915)	53.5
Northeast	54.1	4.4	11th Warmest	59.7 (2012)	36.9 (1960)	53.7
West Central	55.0	5.6	6th Warmest	58.3 (1907)	37.2 (1915)	54.5
Central	55.7	4.8	12th Warmest	60.7 (2012)	38.6 (1915)	55.5
East Central	56.0	4.3	16th Warmest	61.2 (2012)	39.8 (1915)	55.5
Southwest	57.3	5.3	7th Warmest	61.4 (1907)	40.6 (1915)	56.5
South Central	58.8	5.4	8th Warmest	62.1 (1907)	41.6 (1915)	56.8
Southeast	57.2	4.7	12th Warmest	62.0 (1907)	40.3 (1915)	56.1
Statewide	55.3	4.9	9th Warmest	59.6 (2012)	38.5 (1915)	54.7

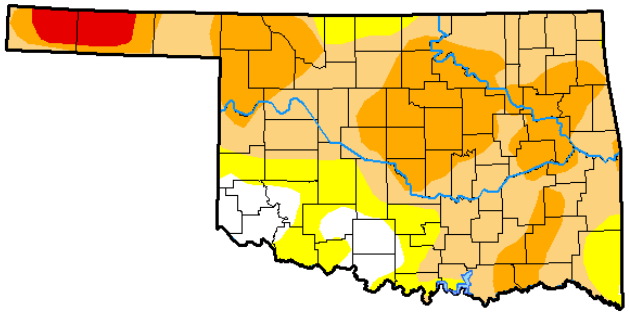
MESONET EXTREMES FOR MARCH 2017

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	97	19th	Beaver	14	7th	Kenton	2.85	Buffalo	1.65	28th	Beaver
North Central	94	19th	May Ranch	19	2nd	Freedom	3.32	Seiling	2.53	28th	Lahoma
Northeast	92	20th	Wynona	21	2nd	Nowata	3.85	Skiatook	2.16	29th	Skiatook
West Central	98	20th	Butler	17	2nd	Camargo	3.60	Putnam	2.53	28th	Putnam
Central	93	20th	Stillwater	21	2nd	Lake Carl Blackwell	5.10	Acme	4.20	28th	Acme
East Central	91	20th	Okmulgee	24	2nd	Stigler	4.71	Sallisaw	1.92	24th	Sallisaw
Southwest	95	20th	Hollis	20	2nd	Mangum	3.78	Tipton	3.61	28th	Tipton
South Central	94	20th	Waurika	24	2nd	Sulphur	1.89	Tishomingo	1.30	29th	Sulphur
Southeast	89	20th	Antlers	23	2nd	Wister	4.48	Broken Bow	1.92	24th	Wister
Statewide	98	20th	Butler	14	7th	Kenton	5.10	Acme	4.20	28th	Acme

Oklahoma Climate Divisions



U.S. Drought Monitor
Oklahoma



March 28, 2017
(Released Thursday, Mar. 30, 2017)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	7.24	92.76	77.80	36.07	2.99	0.00
Last Week 03-21-2017	7.21	92.79	80.56	46.04	3.17	0.00
3 Months Ago 12-27-2016	5.63	94.37	72.32	45.73	3.14	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 03-29-2016	41.06	58.94	19.88	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:
Eric Luebehusen
U.S. Department of Agriculture

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:
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OKLAHOMA CLIMATOLOGICAL SURVEY

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