Oklahoma Monthly Climate Summary

MARCH 2020

OKLAHOMA CLIMATOLOGICAL SURVEY

Winter seemed to take a final bow after February in Oklahoma, leaving March with a warm and wet transition to spring. Areas of southern Oklahoma failed to see temperatures dip below freezing, and Hollis managed to hit 100 degrees on one of the earliest dates in state history. The lack of wintry weather was replaced by active spring weather. Severe storms were not prevalent, but there were three distinct storm systems that brought damaging weather to the state. Severe storms on the 19th spawned at least two tornadoes according to preliminary data from the National Weather Service. The first twister touched down just after midnight on the 19th near Olive in Creek County, damaging trees and a few structures. The second tornado struck later that morning near Okemah in Okfuskee County, again damaging trees and a few structures. The two confirmed tornadoes became the fourth and fifth the state has seen thus far in 2020, equaling the 1950-2019 average for those three months.

March 2020 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	100°F	Hollis	26
Low Temperature	20°F	Several	Several
High Precipitation	9.44 in.	Byars	--
Low Precipitation	0.32 in.	Kenton	--

According to preliminary data from the Oklahoma Mesonet, the statewide average rainfall total was 4.93 inches, 1.89 inches above normal to rank as the fifth wettest March since records began in 1895. As is usually the case in Oklahoma, the heftiest totals were primarily across eastern sections. Totals from 6-9 inches were common southeast of Interstate 44, with Byars leading the way at 9.44 inches for the month. Of the Mesonet's 120 sites, 74 had at least 5 inches of rain, and 25 of those sites had at least 7 inches. The only stations that failed to reach at least an inch were in the far northwest, including three of the sites in the drought plagued western Panhandle. Kenton had the lowest March total with 0.32 inches. The far northwest was the only area of the state with a moisture deficit – generally less than an inch – while surpluses generally grew to 1-3 inches elsewhere. Southwestern and south central Oklahoma saw their third wettest Marches on record at 2.42 inches and 2.94 inches above normal, respectively. The first three months of the year finished with a statewide average of 10.21 inches, 3.78 inches above normal to rank as the fifth wettest January-March since 1895.

The statewide average temperature was 54.9 degrees according to the Mesonet, 4.5 degrees above normal to rank as the 12th warmest March on record. That lofty ranking was owed as much to the lack of cold weather as to an abundance of warm weather. Fifteen Mesonet sites failed to dip below freezing during the month, and more than half spent less than 10 hours at or below 32 degrees. Eva led the state with 76 hours below freezing. The month's lowest temperature of 20 degrees occurred at three different sites over two days. The month's highest temperature was a record breaker. Hollis reached 100 degrees on the 26th for 2020's first triple-digit temperature, the last dating back to Sept. 27, 2019. It also set the mark for the highest temperature ever recorded on any March 26 in Oklahoma history. The January-March statewide average temperature was 46.4 degrees, 2.9 degrees above normal to rank as the 16th warmest such period since 1895.

March 2020 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2020)
Month (March)	54.9°F	4.5°F	12th Warmest
Year-to-Date (Jan-Mar)	46.4°F	2.9°F	16th Warmest

Precipitation

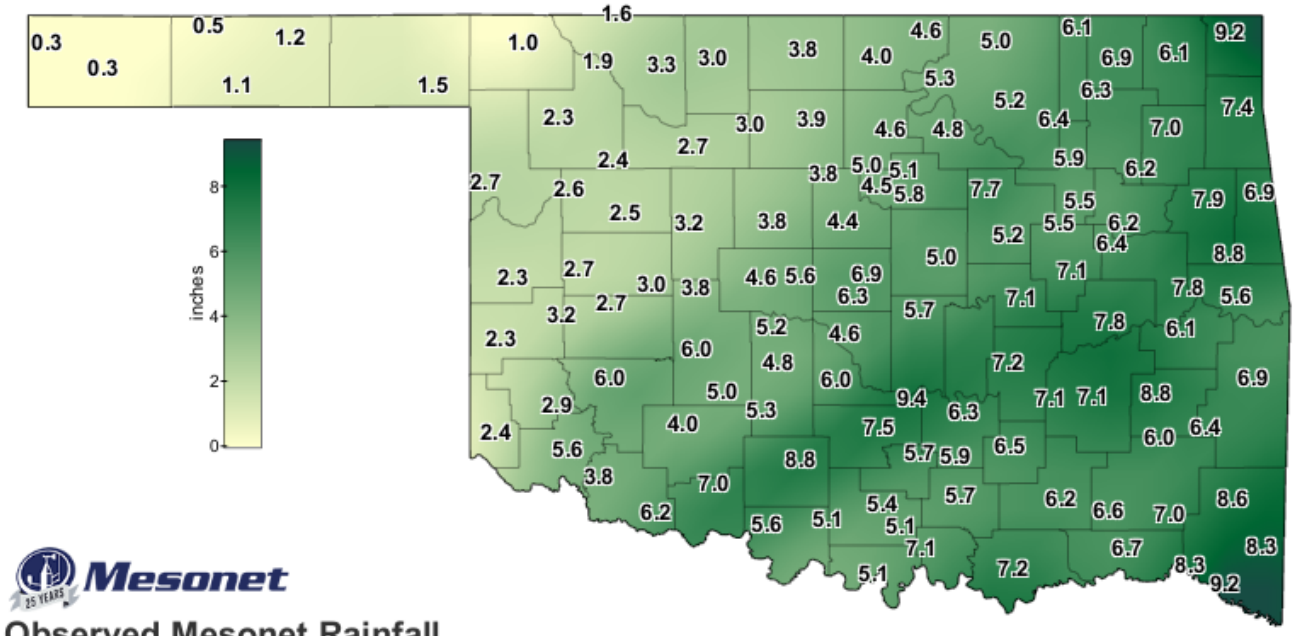
	Total	Depart.	Rank (1895-2020)
Month (March)	4.93 in.	1.89 in.	5th Wettest
Year-to-Date (Jan-Mar)	10.21 in.	3.78 in.	5th Wettest

Depart. = departure from 30-year normal

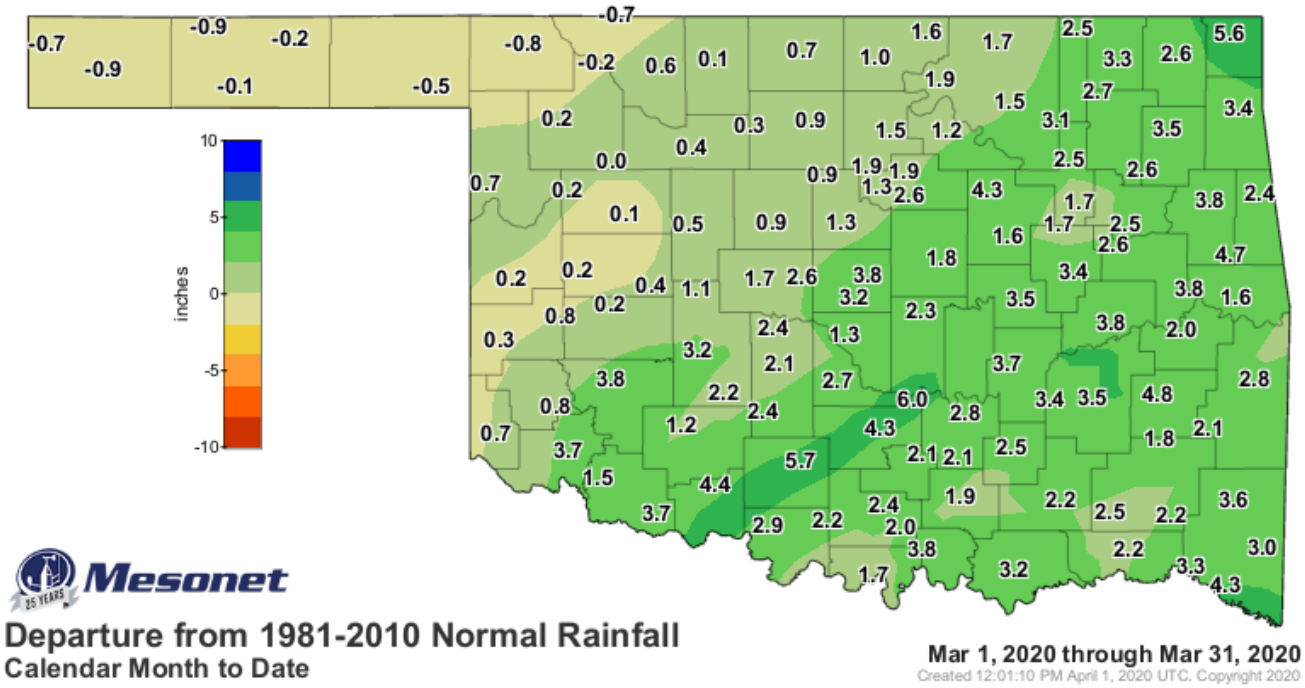
Very little drought remained in the state at the end of March, although the heaviest precipitation failed to hit the most stricken area. The far western Panhandle remained in moderate-to-severe drought, virtually unchanged since the beginning of last fall. Smaller areas of persistent drought in the far southwest received enough precipitation to be

improved to the point of elimination. The April temperature and precipitation outlooks from the Climate Prediction Center (CPC) do not provide much hope for drought relief in the western Panhandle with increased odds of above normal temperatures and precipitation over much of the state, but no such indications in that area. Given those outlooks, CPC's April drought outlook expects some relief for the remaining dry conditions in the far southwest, but persistence and possibly even more development southeastward in the western Panhandle.

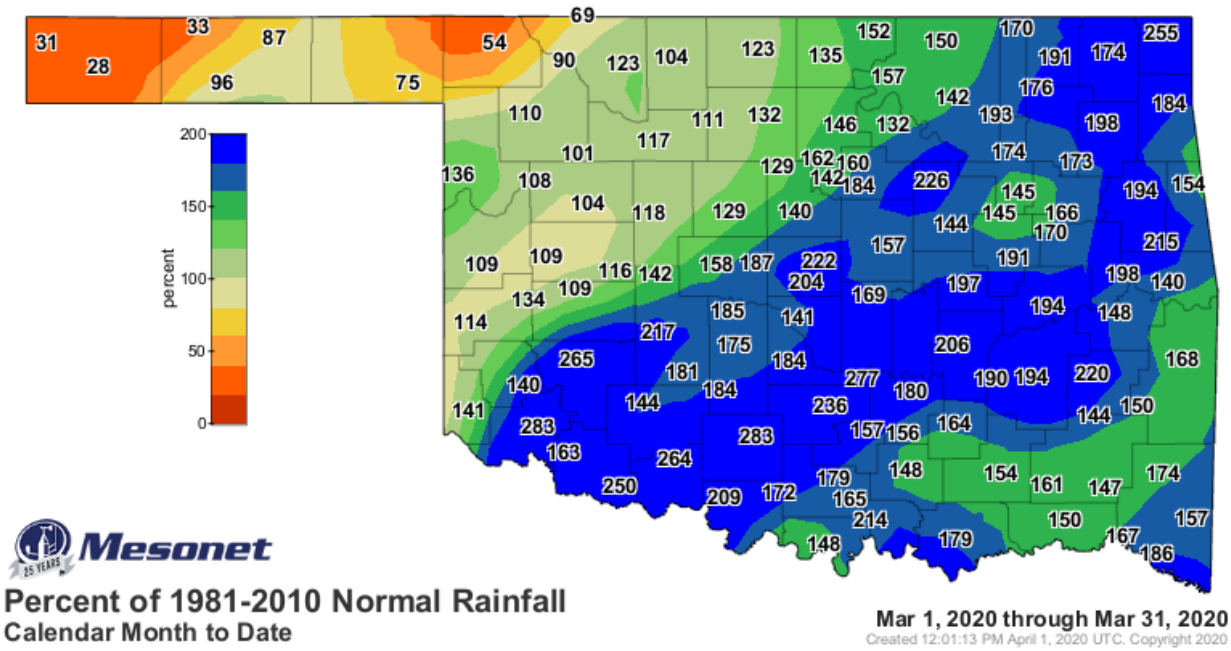
MARCH 2020 OBSERVED PRECIPITATION



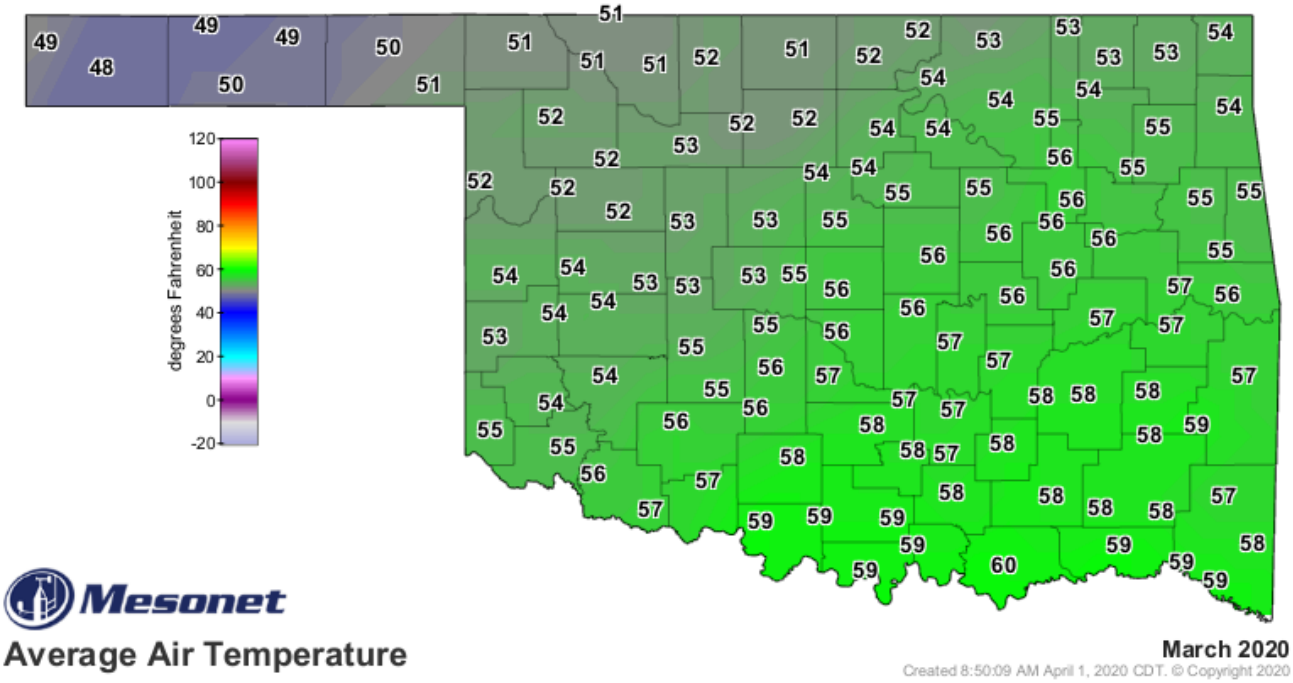
MARCH 2020 DEPARTURE FROM NORMAL PRECIPITATION



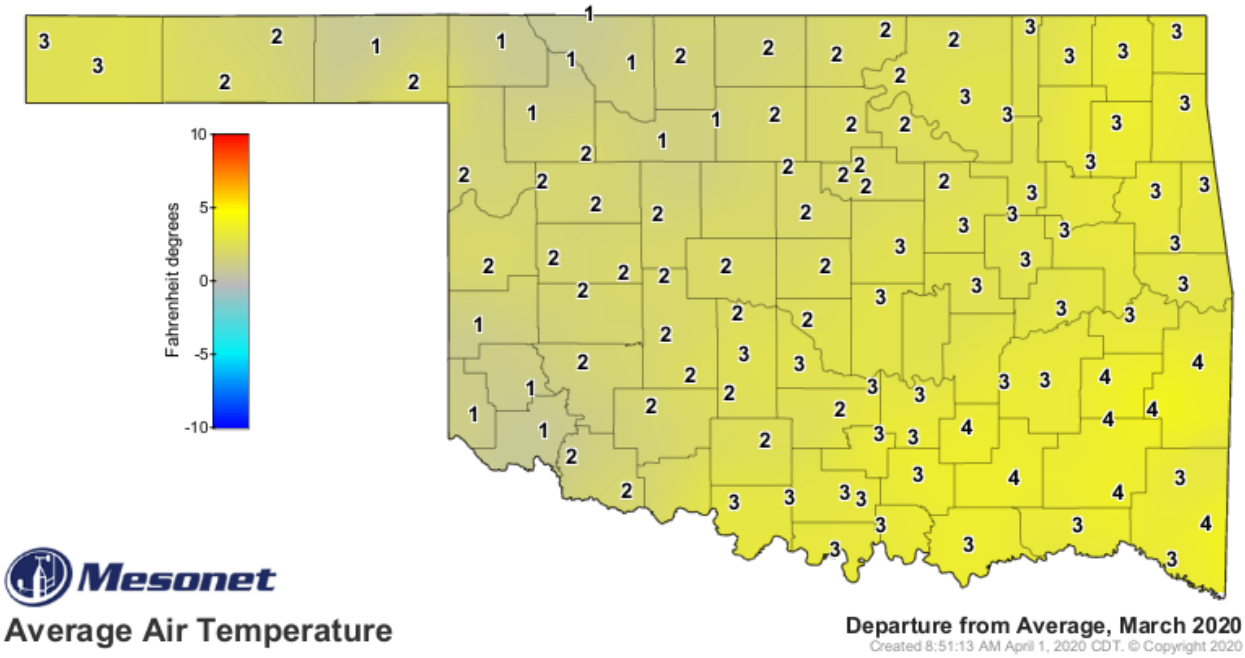
MARCH 2020 PERCENT OF NORMAL PRECIPITATION



MARCH 2020 AVERAGE TEMPERATURE



MARCH 2020 DEPARTURE FROM NORMAL TEMPERATURE

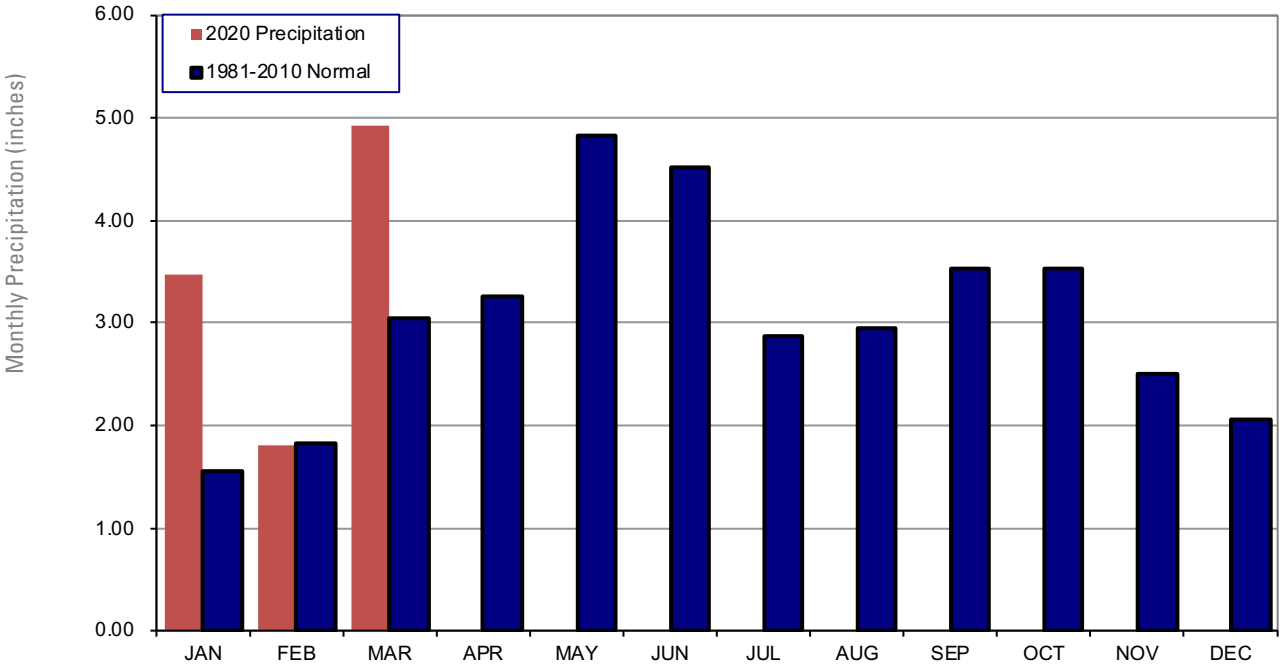


MESONET MONTHLY SUMMARY FOR MARCH 2020

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	52.7	95	26	23	6	400	19	2.67	.60	13
Beaver	51.1	93	26	20	6	****	****	*****	*****	***
Boise City	48.8	84	25	21	3	504	0	.34	.17	13
Buffalo	50.9	89	25	20	6	438	3	.99	.39	13
Eva	48.7	87	25	22	3	506	0	.47	.14	13
NORTH CENTRAL										
Alva	51.2	86	25	22	6	428	0	3.34	.79	24
Blackwell	52.4	82	25	25	6	391	1	4.00	.76	24
Breckinridge	52.4	83	25	25	5	393	1	3.86	.79	14
Cherokee	51.5	84	25	24	6	417	0	2.98	1.12	24
Fairview	52.4	83	25	26	21	390	1	2.72	.93	13
Freedom	51.2	86	25	24	6	428	2	1.92	.58	13
Lahoma	51.8	81	25	26	21	411	0	3.02	.68	14
NORTHEAST										
Bixby	56.3	95	26	27	5	294	26	5.45	1.25	17
Burbank	54.0	87	26	26	21	359	17	5.32	1.10	14
Copan	54.1	87	26	28	21	358	21	6.07	1.19	24
Foraker	53.4	87	26	26	21	377	17	4.99	.80	24
Inola	55.3	91	26	28	5	322	22	6.15	1.63	19
Jay	54.7	88	26	28	5	340	21	7.36	1.64	19
Miami	54.0	83	26	29	5	357	17	9.19	2.98	19
Nowata	53.9	86	26	26	5	365	20	6.87	1.64	19
WEST CENTRAL										
Bessie	54.4	96	26	27	21	348	20	2.69	.58	17
Butler	54.3	97	26	24	6	350	17	2.69	.73	13
Camargo	51.9	96	26	21	6	417	11	2.56	.80	13
Cheyenne	54.1	95	26	27	21	365	27	2.27	.59	13
Elk City	54.4	98	26	28	21	346	17	3.18	.69	15
CENTRAL										
Acme	56.6	90	26	25	6	289	29	5.25	1.43	19
Bristow	56.0	95	26	27	7	310	31	5.18	.89	17
Lake Carl Blac	54.2	93	26	24	5	363	28	5.00	.62	16
Chandler	56.6	96	26	30	6	297	38	5.02	1.08	30
Chickasha	55.9	91	26	25	6	306	23	4.82	1.20	17
El Reno	53.9	97	26	24	5	365	20	4.55	.97	18
Guthrie	55.5	94	26	27	6	327	32	4.44	.86	17
Kingfisher	53.6	89	26	26	6	366	12	3.79	.68	15
Marena	54.9	92	26	29	21	339	26	4.47	.88	17
Minco	55.1	91	26	28	21	327	20	5.18	.98	17
Marshall	53.7	89	26	24	6	366	16	3.82	.58	17
EAST CENTRAL										
Cookson	55.4	89	26	29	21	321	24	8.84	2.90	19
Eufaula	57.4	92	26	33	5	267	33	7.80	1.86	19
Haskell	55.9	93	26	28	5	304	22	6.35	1.73	19
Hectorville	56.8	94	26	31	21	284	30	5.51	1.33	17
Holdenville	57.2	93	26	31	21	273	32	7.16	1.93	19
McAlester	57.6	93	26	28	6	267	39	7.13	1.32	13
Okmulgee	56.2	94	26	27	7	300	29	7.06	1.86	14
SOUTHWEST										
Altus	55.4	95	26	27	6	313	16	5.64	1.72	18
Apache	55.7	91	26	29	21	311	23	4.97	1.87	17
Fort Cobb	54.9	93	26	25	5	329	16	6.01	1.91	18
Grandfield	57.0	88	26	30	6	264	17	6.22	1.87	17
Hinton	54.1	93	26	28	6	355	18	3.78	.99	17
Hobart	54.7	93	26	26	6	336	16	6.03	2.36	18
SOUTH CENTRAL										
Ada	57.4	94	26	30	6	275	41	6.31	1.59	17
Ardmore	59.3	91	26	35	21	221	44	5.11	1.07	13
Burneyville	59.1	89	25	30	6	229	46	5.10	1.20	18
Byars	57.8	93	26	31	21	263	41	9.44	3.71	19
Centrahoma	58.0	91	26	28	6	254	37	6.46	1.71	13
Durant	59.6	87	26	36	5	218	51	7.19	1.87	18
Fittstown	57.5	93	26	31	5	268	35	5.91	1.57	19
Ketchum Ranch	58.1	92	26	33	21	247	32	8.81	2.75	19
SOUTHEAST										
Antlers	57.9	88	26	30	7	247	27	6.57	2.19	18
Broken Bow	58.0	87	26	32	6	243	27	8.28	2.03	18
Clayton	58.2	90	26	30	7	245	34	6.03	1.38	18
Cloudy	58.1	87	26	34	6	244	29	6.95	2.12	18
Hugo	59.4	87	26	37	21	216	42	6.69	1.77	13
Idabel	59.0	85	26	37	6	222	36	9.24	2.76	18

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
Goodwell	50.1	86	26	24	2	462	0	1.11	.39	30
Hooker	49.4	90	26	23	6	485	2	1.17	.49	30
Kenton	48.9	83	25	20	4	499	0	.32	.14	13
Slapout	52.2	93	26	25	21	411	15	1.49	.52	30
May Ranch	51.1	89	25	24	21	435	4	1.63	.39	8
Medford	51.6	82	25	24	6	414	0	3.76	.93	24
Newkirk	52.9	84	25	26	21	384	10	4.56	.78	24
Red Rock	53.9	85	25	25	6	358	14	4.61	.74	14
Seiling	52.5	93	26	21	6	402	15	2.35	.49	13
Woodward	52.8	89	25	26	21	397	19	2.34	.54	13
Pawnee	54.9	91	26	25	6	339	25	4.75	.77	14
Porter	56.6	93	26	31	21	285	24	6.22	1.94	19
Pryor	55.1	91	26	26	5	331	24	7.00	1.54	16
Skiatook	55.6	90	26	29	21	317	26	6.43	.89	19
Talala	54.6	88	26	29	21	342	20	6.29	1.48	19
Tulsa	56.6	93	26	30	21	291	30	5.91	1.82	19
Vinita	53.8	86	26	27	5	****	****	6.10	1.70	19
Wynona	55.0	90	26	28	5	336	25	5.15	1.06	14
Erick	53.0	95	26	22	6	381	8	2.29	.67	17
Putnam	52.6	91	26	25	21	397	14	2.45	.90	13
Watonga	53.1	87	26	27	21	383	14	3.19	.65	17
Weatherford	53.5	92	26	28	21	371	14	3.00	.59	17
Norman	56.6	93	26	28	6	296	35	4.58	1.31	17
Oilton	55.0	95	26	22	6	****	****	7.37	2.26	19
OKC East	56.1	94	26	28	5	312	35	6.29	1.66	18
Okemah	56.1	92	26	27	6	302	26	7.08	1.82	14
Perkins	55.4	92	26	28	5	326	28	5.78	1.22	18
Seminole	57.2	94	26	32	5	278	37	7.44	2.03	19
Shawnee	56.5	92	26	30	21	296	32	5.72	1.29	17
Spencer	56.1	95	26	29	6	314	37	6.91	1.68	18
Stillwater	55.2	91	26	25	6	334	30	5.05	.86	17
Washington	57.0	92	26	32	21	275	27	5.96	1.76	19
Yukon	55.3	94	26	27	21	329	27	5.60	1.16	17
Sallisaw	56.6	90	26	31	21	284	23	5.62	1.48	19
Stigler	56.8	92	26	32	21	279	27	6.05	1.27	30
Stuart	57.8	91	26	34	21	259	36	7.13	1.50	17
Tahlequah	55.3	89	26	28	5	324	24	7.89	2.44	19
Webbers Falls	57.1	92	26	31	6	274	28	7.76	2.25	19
Westville	54.9	87	26	30	21	334	21	6.88	2.11	19
Hollis	55.3	100	26	27	6	320	19	2.39	.70	17
Mangum	54.6	99	26	22	5	333	11	2.85	.63	17
Medicine Park	56.6	90	26	33	21	284	25	4.03	.99	17
Tipton	56.5	94	26	28	6	285	21	3.82	1.19	17
Walters	57.9	91	26	34	21	248	29	7.00	2.22	19
Lane	58.3	89	26	30	5	242	34	6.16	1.66	18
Madill	59.2	88	26	34	7	227	47	7.14	2.67	18
Newport	59.3	92	26	35	21	224	47	5.39	1.26	13
Pauls Valley	58.2	95	26	30	5	252	40	7.53	2.19	19
Ringling	58.9	91	26	33	5	228	37	5.14	1.38	17
Sulphur	57.8	92	26	27	5	262	37	5.72	1.85	17
Tishomingo	57.9	90	26	34	6	252	33	5.74	1.16	13
Waurika	59.4	96	26	32	6	218	45	5.61	1.09	17
Mt Herman	57.1	85	26	35	6	269	24	8.55	1.64	18
Talihina	58.6	90	26	29	7	238	39	6.35	1.39	13
Valliant	58.5	85	26	30	6	234	32	8.26	2.11	18
Wilburton	57.7	92	26	31	7	261	35	8.75	1.98	19
Wister	56.4	90	26	26	7	287	20	6.90	1.32	13

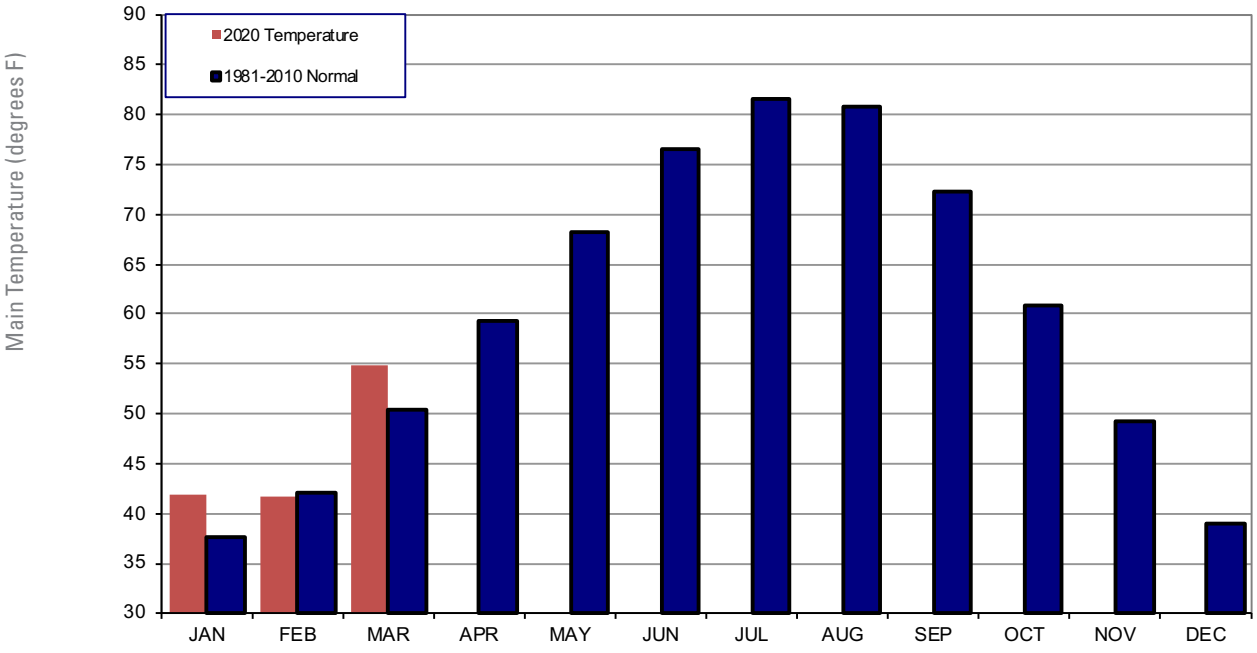
2020 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



March 2020 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Mar-19 (inches)
Panhandle	1.07	-0.46	57th Wettest	5.66 (1973)	0.01 (1936)	1.89
North Central	3.16	0.49	21st Wettest	8.27 (1973)	0.00 (1936)	2.30
Northeast	6.20	2.69	8th Wettest	9.33 (1973)	0.33 (1971)	2.97
West Central	2.70	0.41	24th Wettest	6.76 (1973)	0.00 (1971)	2.58
Central	5.44	2.30	6th Wettest	7.45 (1990)	0.10 (1971)	2.78
East Central	7.01	3.13	8th Wettest	10.02 (1945)	0.52 (1941)	2.99
Southwest	4.79	2.42	3rd Wettest	5.61 (1973)	0.00 (1940)	2.31
South Central	6.42	2.94	3rd Wettest	8.15 (1945)	0.28 (1950)	2.77
Southeast	7.51	3.00	9th Wettest	12.50 (1945)	0.96 (2011)	3.04
Statewide	4.93	1.89	5th Wettest	7.43 (1973)	0.39 (1971)	2.62

2020 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



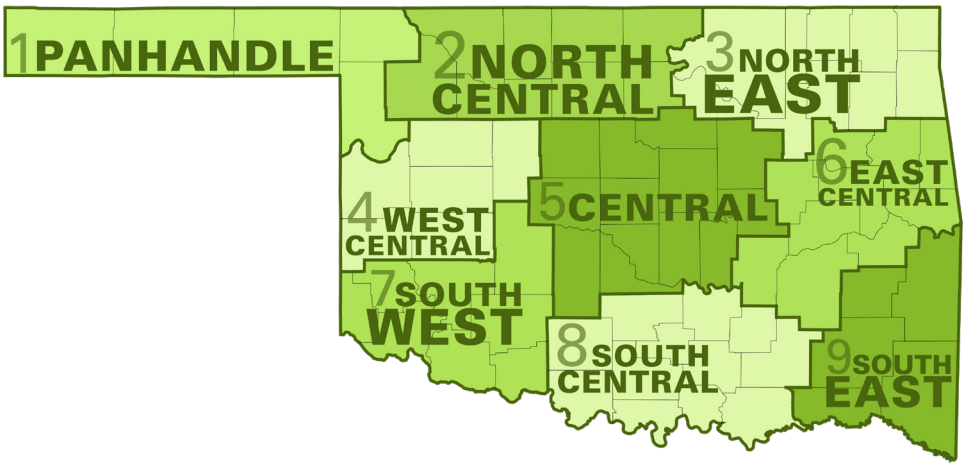
March 2020 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Mar-19 (F)
Panhandle	50.1	3.6	17th Warmest	55.4 (2012)	34.1 (1958)	43.2
North Central	52.1	3.8	19th Warmest	58.5 (2012)	36.0 (1915)	45.2
Northeast	54.8	5.1	9th Warmest	59.7 (2012)	36.9 (1960)	46.0
West Central	53.5	4.1	16th Warmest	58.3 (1907)	37.2 (1915)	46.7
Central	55.5	4.6	15th Warmest	60.7 (2012)	38.6 (1915)	47.7
East Central	56.5	4.8	14th Warmest	61.2 (2012)	39.8 (1915)	48.2
Southwest	55.7	3.7	19th Warmest	61.4 (1907)	40.6 (1915)	49.0
South Central	58.5	5.1	12th Warmest	62.1 (1907)	41.6 (1915)	50.2
Southeast	58.1	5.6	9th Warmest	62.0 (1907)	40.3 (1915)	50.2
Statewide	54.9	4.5	12th Warmest	59.6 (2012)	38.5 (1915)	47.3

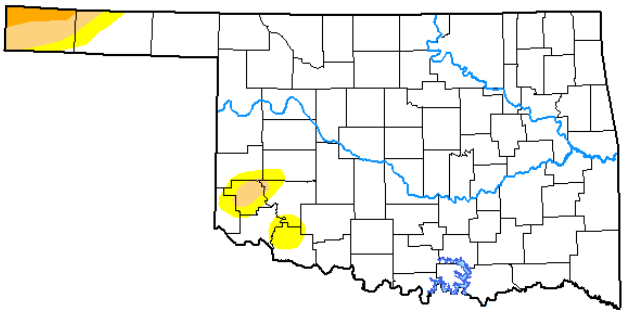
MESONET EXTREMES FOR MARCH 2020

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	95	26th	Arnett	20	6th	Buffalo	2.67	Arnett	0.60	13th	Arnett
North Central	93	26th	Seiling	21	6th	Seiling	4.61	Red Rock	1.12	24th	Cherokee
Northeast	95	26th	Bixby	25	6th	Pawnee	9.19	Miami	2.98	19th	Miami
West Central	98	26th	Elk City	21	6th	Camargo	3.19	Watonga	0.90	13th	Putnam
Central	97	26th	El Reno	22	6th	Oilton	7.71	Oilton	2.26	19th	Oilton
East Central	94	26th	Hectorville	27	7th	Okmulgee	8.84	Cookson	2.90	19th	Cookson
Southwest	100	26th	Hollis	22	5th	Mangum	7.00	Walters	2.36	18th	Hobart
South Central	96	26th	Waurika	27	5th	Sulphur	9.44	Byars	3.71	19th	Byars
Southeast	92	26th	Wilburton	26	7th	Wister	9.24	Idabel	2.76	18th	Idabel
Statewide	100	26th	Hollis	20	6th	Buffalo	9.44	Byars	3.71	19th	Byars

Oklahoma Climate Divisions



U.S. Drought Monitor
Oklahoma



March 24, 2020
(Released Thursday, Mar. 26, 2020)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	93.64	6.36	3.11	0.84	0.00	0.00
Last Week *03-17-2020*	92.25	7.75	3.86	0.84	0.00	0.00
3 Months Ago *12-24-2019*	60.87	39.13	18.07	3.64	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 *03-26-2019*	97.87	2.13	0.00	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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U.S. Department of Agriculture

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

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