

Despite the season, spring and winter weather stole most of the headlines during October. A cold front moved through the state on the sixth and dropped temperatures below normal, where they would remain for the rest of the month. Light snow fell in the Panhandle on the 11th, but the real wintry punch was yet to come. Over a foot of snow pounded the northwest on the 24th and 25th – a rare October snowstorm that shattered records. Arnett’s total of 13 inches on the 25th broke the record for highest 24-hour snow total in Oklahoma during October, and for that early in the season. Amounts from 6-10 inches were common. Winter wasn’t finished breaking records, however. A powerful cold front blasted through the state on the 28th, culminating Halloween morning with the lowest temperature ever recorded in Oklahoma during the month of October, and for that early in the season. Kenton dropped to zero degrees that day, besting the previous lowest October minimum of 3 degrees at Freedom from Oct. 29,

The cold October brought the January-October statewide average down to 62.9 degrees, 0.2 degrees below normal – the 61st coolest such period on record.

Despite a dry month in the western half of the state, October still managed to finish with a moisture surplus thanks to tremendous rains across eastern Oklahoma. The statewide average was 4.80 inches, 1.26 inches above normal to rank as the 21st wettest October on record. East central Oklahoma had an average of 10.46 inches, 6.02 inches above normal, to rank as their fourth wettest October on record. The northeast and southeast sections experienced their tenth and seventh wettest Octobers, respectively. Deficits across the west generally ranged from 1-2 inches. Thirteen Mesonet sites recorded at least 10 inches of rain for the month, with Jay leading the pack at 15.8 inches. Hollis brought up the rear with 0.28 inches, joining 12 other sites that failed to reach at

### October 2019 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	95°F	Grandfield	2, 5
Low Temperature	0°F	Kenton	31
High Precipitation	15.80 in.	Jay	--
Low Precipitation	0.28 in.	Hollis	--

1993. Spring stepped in on the 20th and brought an outbreak of severe weather across eastern Oklahoma. The day saw winds of 70-80 mph, hail to the size of baseballs, and at least six confirmed tornadoes. All the tornadoes were considered weak – rated EF0 or EF1 on the Enhanced Fujita Scale – but damaging nonetheless. The 2019 tornado count rose to 146, the most for any calendar year since accurate records began in 1950, eclipsing 1999’s previous record count of 145.

According to preliminary data from the Oklahoma Mesonet, the statewide average temperature was 56.7 degrees, 4.2 degrees below normal and ranked as the eighth coolest October on record. Those records date back to 1895. Minimum temperature records were set or tied during the month at Lawton, McAlester, and Oklahoma City. Low maximum temperature records were also set or tied at Lawton and Oklahoma City. Grandfield recorded the highest temperature of the month with 95 degrees on the fifth.

### October 2019 Statewide Statistics

#### Temperature

	Average	Depart.	Rank (1895-2019)
Month (October)	56.7°F	-4.2°F	8th Coolest
Season-to-Date (Sept-Oct)	67.9°F	1.4°F	42nd Warmest
Year-to-Date (Jan-Oct)	62.9°F	-0.2°F	42nd Warmest

#### Precipitation

	Total	Depart.	Rank (1895-2019)
Month (October)	4.80 in.	1.26 in.	21st Wettest
Season-to-Date (Sept-Oct)	7.78 in.	0.71 in.	13th Wettest
Year-to-Date (Jan-Oct)	41.54 in.	9.61 in.	6th Wettest

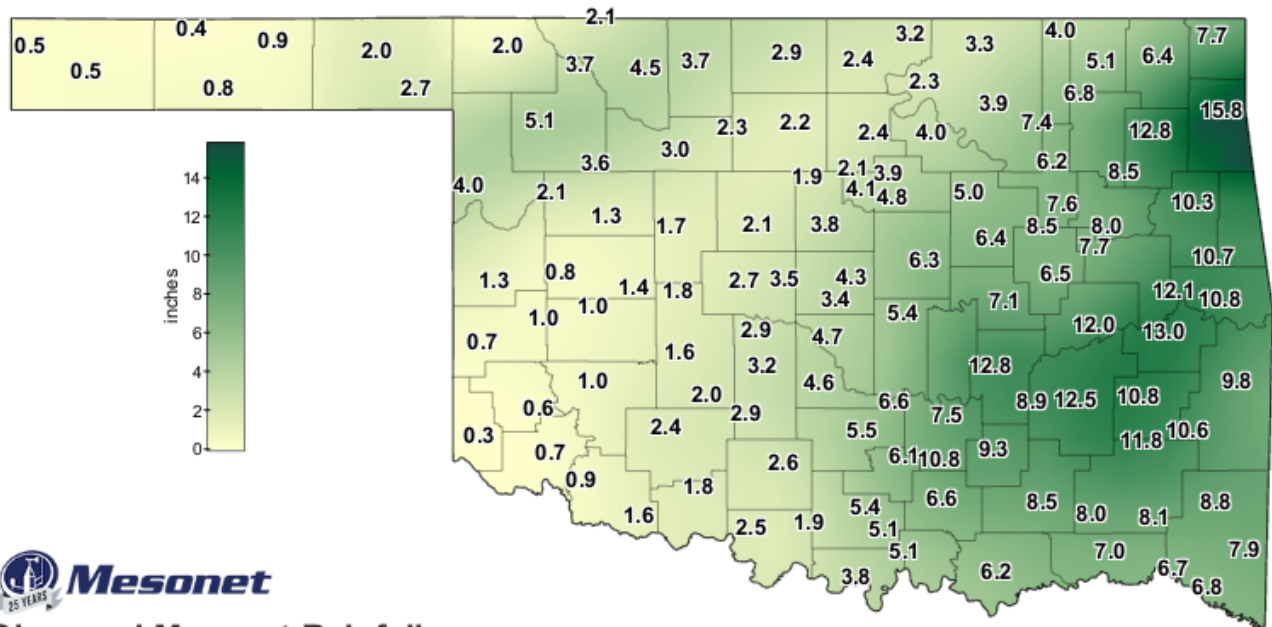
Depart. = departure from 30-year normal

least an inch of precipitation. The state remained on pace to finish with one of its wettest years on record. The statewide average was 41.54 inches, 9.61 inches above normal to rank as the sixth wettest January-October on record. Northeast Oklahoma’s average total of 59.89 inches stood at 22.72 inches above normal, the wettest first 10 months of the year for that corner of the state. That 10-month total also broke

their annual total record, 57.82 inches from 1973.

The rainfall helped improve the drought picture, and the cooler weather kept new drought development in check. Drought coverage dropped from 11% to 8% during October according to the U.S. Drought Monitor. Drought did manage to spread into the western half of the Panhandle from southwest Kansas. The November drought outlook from the Climate Prediction Center (CPC) holds out hope for drought improvement in the southwest, but sees persistence of the dry conditions in the Panhandle. CPC's November outlooks call for below normal temperatures and precipitation across eastern Oklahoma and equal odds of below-, above-, and near-normal conditions over the rest of the state.

## OCTOBER 2019 OBSERVED PRECIPITATION

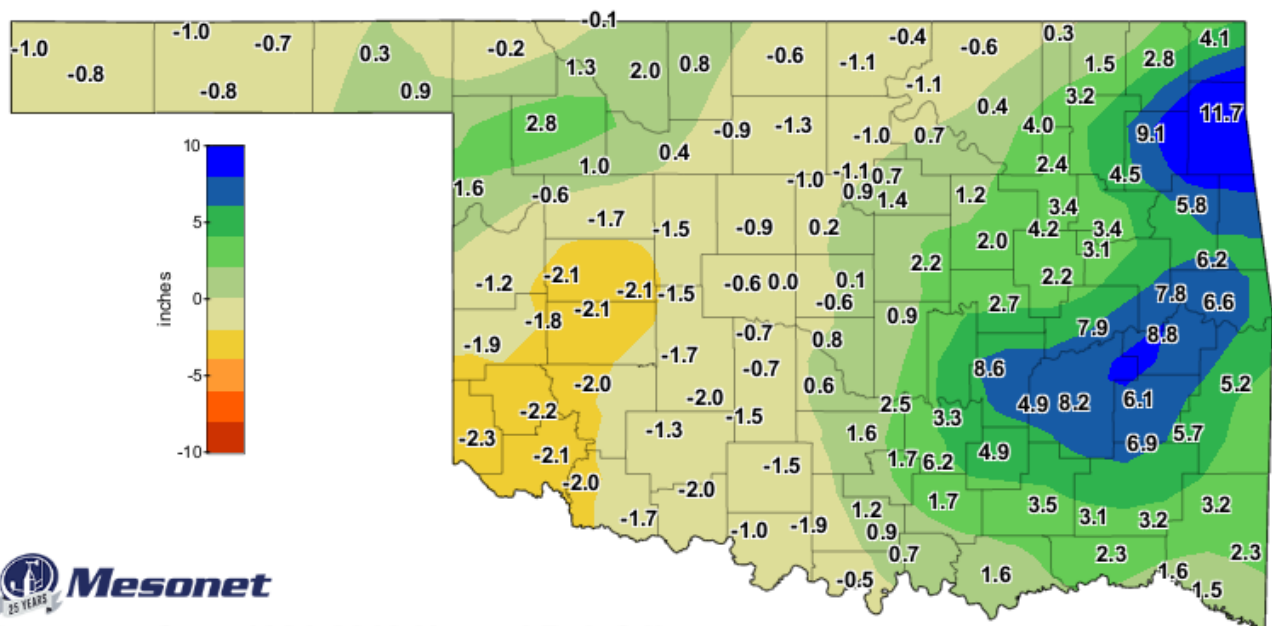


**Observed Mesonet Rainfall**  
Calendar Month to Date

Oct 1, 2019 through Oct 31, 2019

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## OCTOBER 2019 DEPARTURE FROM NORMAL PRECIPITATION

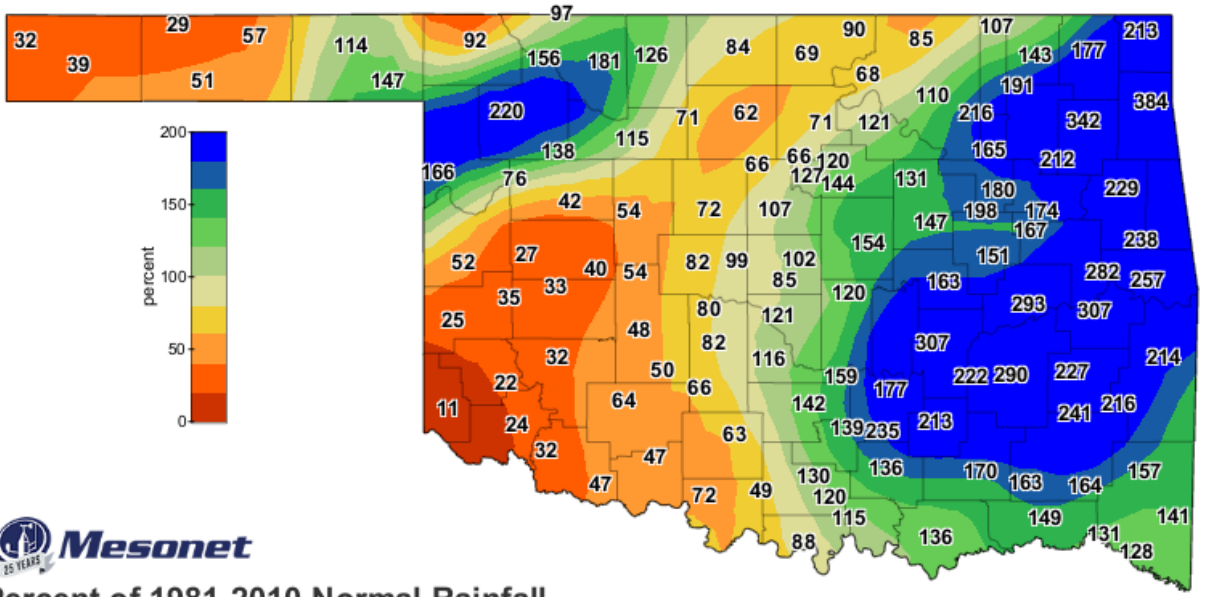


**Departure from 1981-2010 Normal Rainfall**  
Calendar Month to Date

Oct 1, 2019 through Oct 31, 2019

Created 12:00:56 PM November 1, 2019 UTC. Copyright 2019

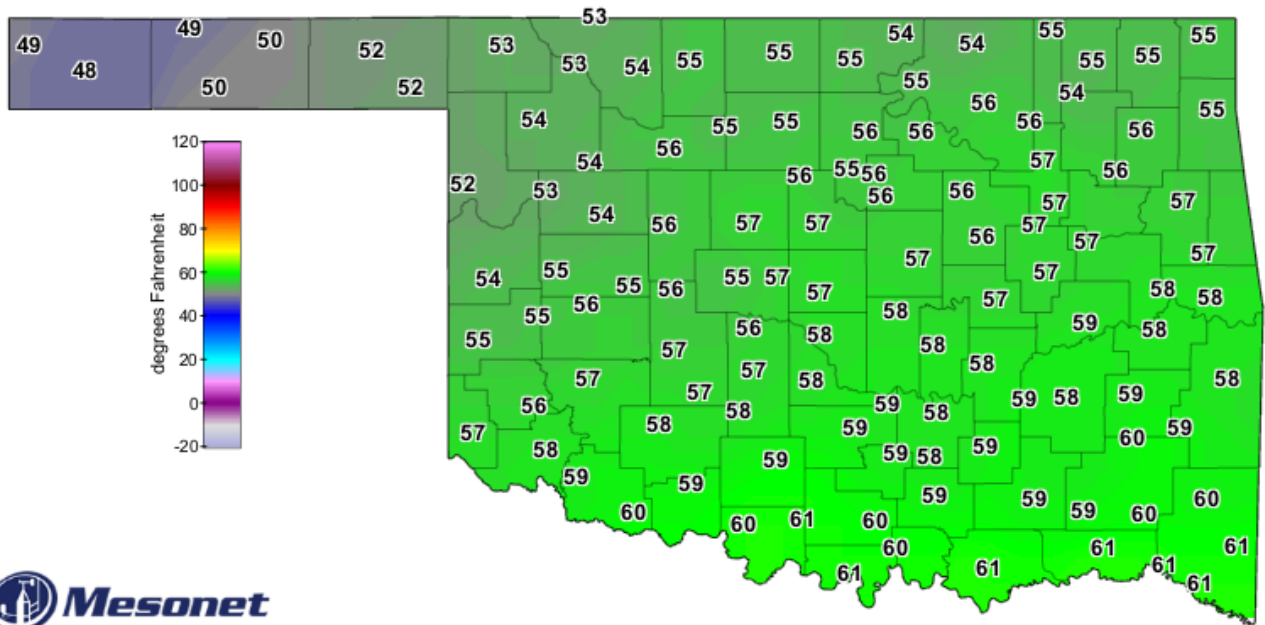
# OCTOBER 2019 PERCENT OF NORMAL PRECIPITATION



Percent of 1981-2010 Normal Rainfall  
Calendar Month to Date

Oct 1, 2019 through Oct 31, 2019  
Created 12:00:57 PM November 1, 2019 UTC. Copyright 2019

## OCTOBER 2019 AVERAGE TEMPERATURE

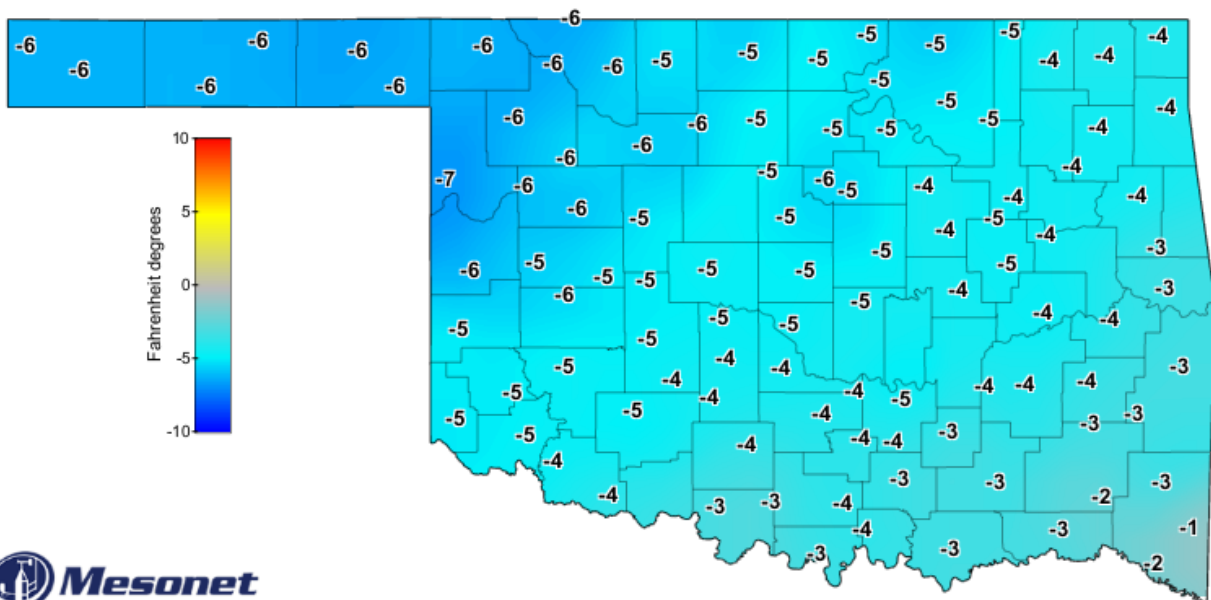


Average Air Temperature

October 2019

Created 9:22:01 AM November 1, 2019 CDT. © Copyright 2019

## OCTOBER 2019 DEPARTURE FROM NORMAL TEMPERATURE



Average Air Temperature

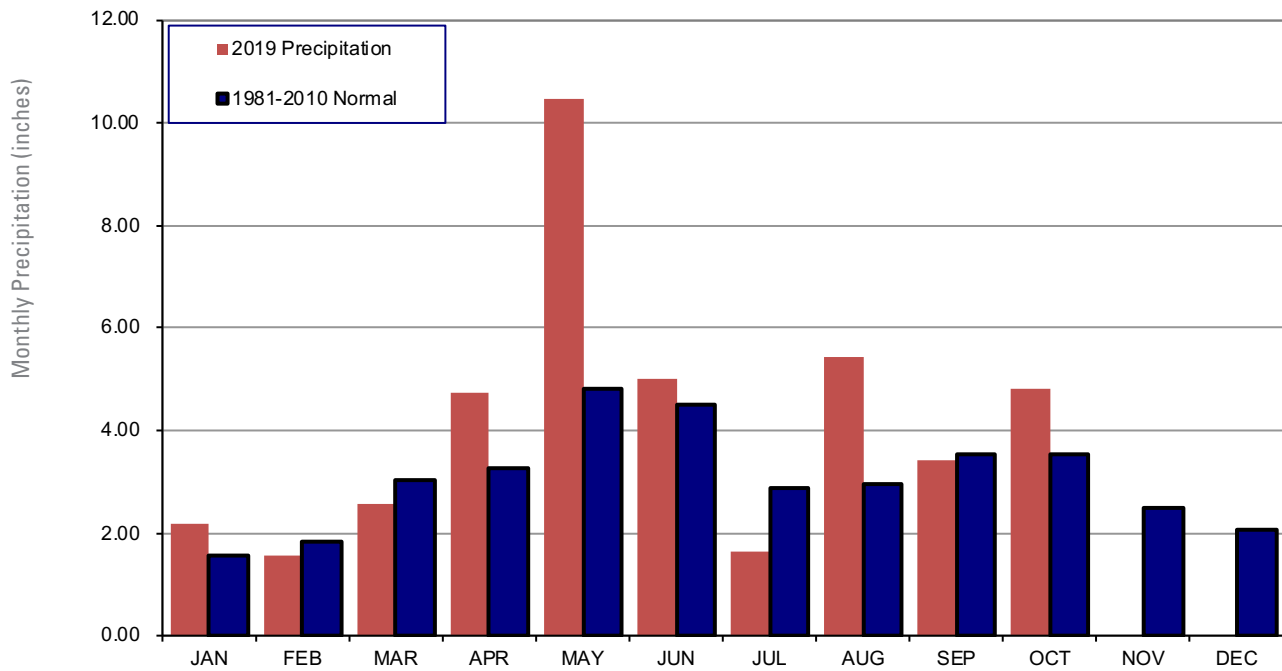
Departure from Average, October 2019

Created 6:58:09 AM November 1, 2019 CDT. © Copyright 2019

# MESONET MONTHLY SUMMARY FOR OCTOBER 2019

NAME	MEAN TEMP	HIGH TEMP	LOW TEMP	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY	NAME	MEAN TEMP	HIGH TEMP	LOW TEMP	DAY	HDD	CDD	TOT PPT	HIGH 24-HR	DAY		
<b>PANHANDLE</b>																					
Arnett	53.1	88	14	17	31	395	25	3.95	2.81	3	Goodwell	51.1	89	9	10	31	447	17	.79	.67	1
Beaver	51.7	89	9	7	31	441	28	2.01	1.16	1	Hooker	50.8	89	9	7	31	457	18	.89	.78	1
Boise City	48.7	87	9	7	31	508	4	.54	.35	1	Kenton	48.8	88	17	0	31	515	12	.45	.22	24
Buffalo	53.5	89	14	13	31	395	39	1.95	1.28	3	Slapout	53.0	88	9	14	31	397	25	2.70	.83	1
Eva	49.6	91	9	5	30	489	11	.42	.33	1											
<b>NORTH CENTRAL</b>																					
Alva	54.6	91	2	16	31	359	36	4.46	1.81	3	May Ranch	53.5	88	1	16	31	379	24	2.09	1.73	3
Blackwell	55.2	91	2	19	31	340	36	2.40	1.00	3	Medford	54.7	93	2	18	31	357	38	2.90	1.54	3
Breckinridge	55.9	92	2	20	31	327	44	2.15	.63	24	Newkirk	54.4	89	2	20	31	358	30	3.22	1.37	3
Cherokee	55.1	92	2	18	31	345	37	3.74	1.68	3	Red Rock	55.9	91	2	20	31	323	42	2.36	.51	25
Fairview	55.8	93	2	19	31	331	46	3.03	1.82	3	Seiling	54.3	92	2	16	31	370	37	3.62	1.56	3
Freedom	53.9	91	1	14	31	379	34	3.66	2.62	3	Woodward	54.1	90	2	16	31	373	37	5.11	4.11	3
Lahoma	55.1	94	2	19	31	348	42	2.27	1.22	3											
<b>NORTHEAST</b>																					
Bixby	57.3	90	2	27	31	282	44	7.63	1.65	24	Pawnee	56.4	91	2	22	31	305	38	4.00	.82	24
Burbank	55.2	90	2	20	31	340	37	2.26	.55	24	Porter	57.6	90	2	27	31	273	44	8.04	2.04	24
Copan	55.5	91	2	24	31	327	34	4.04	1.12	29	Pryor	55.9	89	2	26	31	320	38	12.83	3.91	6
Foraker	54.6	90	2	20	31	354	31	3.26	.62	3	Skiatook	56.9	90	2	23	31	289	38	7.43	1.88	20
Inola	56.2	89	2	26	31	310	37	8.48	2.01	24	Talala	54.1	81	5	23	31	****	****	6.76	1.54	6
Jay	55.8	87	2	27	31	323	36	15.80	7.75	6	Tulsa	57.8	91	2	26	31	271	47	6.17	1.93	24
Miami	55.7	88	2	27	31	323	34	7.70	2.12	6	Vinita	55.4	90	2	24	31	332	32	6.44	2.12	6
Nowata	55.2	90	2	24	31	340	35	5.10	1.07	29	Wynona	55.9	90	2	23	31	315	34	3.87	1.16	29
<b>WEST CENTRAL</b>																					
Bessie	56.4	91	2	19	31	322	56	1.04	.75	25	Erick	55.5	92	2	17	31	345	51	.66	.43	24
Butler	55.5	93	2	14	31	348	52	.79	.40	24	Putnam	54.5	90	2	14	31	364	40	1.26	.51	25
Camargo	53.3	91	2	12	31	399	36	2.07	1.28	3	Watonga	55.9	92	2	19	31	330	46	1.74	.65	25
Cheyenne	54.9	90	2	19	31	350	39	1.33	.81	3	Weatherford	55.8	90	2	17	31	338	51	1.35	.88	25
Elk City	55.7	91	2	21	31	337	49	.99	.36	24											
<b>CENTRAL</b>																					
Acme	57.7	90	5	22	31	292	67	2.88	1.35	24	Norman	57.8	89	2	23	31	283	59	4.73	1.82	25
Bristow	57.1	92	2	24	31	298	52	6.36	2.08	24	Oilton	56.5	90	2	23	31	310	47	4.95	1.42	24
Lake Carl Blac	55.5	91	2	21	31	341	47	2.11	.73	25	OKC East	57.7	90	5	25	31	289	63	3.42	1.44	25
Chandler	57.5	90	2	23	31	287	53	6.27	1.84	24	Okemah	57.4	93	2	25	31	289	53	7.06	2.23	24
Chickasha	57.4	93	5	23	31	300	64	3.19	1.33	24	Perkins	57.2	92	2	23	31	295	52	4.75	1.17	29
El Reno	55.7	90	2	20	31	338	49	2.68	.84	25	Seminole	58.2	91	2	24	31	271	61	5.90	1.74	24
Guthrie	57.0	91	2	22	31	300	51	3.77	1.21	25	Shawnee	58.1	92	2	24	31	277	63	5.36	2.21	24
Kingfisher	56.4	93	2	22	31	318	52	2.14	1.12	25	Spencer	57.7	89	2	22	31	282	57	4.30	1.67	25
Marena	56.0	89	2	20	31	319	41	4.11	.87	29	Stillwater	56.7	91	2	23	31	302	45	3.88	.81	24
Minco	56.8	90	5	22	31	304	51	2.90	1.19	25	Washington	58.7	92	2	22	31	268	72	4.64	1.63	25
Marshall	56.3	91	2	20	31	320	49	1.91	.67	25	Yukon	56.8	89	2	21	31	309	54	3.49	1.32	25
<b>EAST CENTRAL</b>																					
Cookson	57.1	87	2	26	31	291	47	10.72	2.83	10	Sallisaw	59.1	90	2	29	31	241	57	10.81	2.97	24
Eufaula	58.9	90	2	27	31	246	58	11.96	3.37	24	Stigler	58.2	90	2	28	31	267	55	13.03	3.78	10
Haskell	57.2	90	2	26	31	286	43	7.69	1.72	24	Stuart	59.2	90	2	26	31	246	67	8.90	3.83	24
Hectorville	57.7	90	2	25	31	273	47	8.46	2.25	24	Tahlequah	56.6	88	2	28	31	305	44	10.31	2.56	24
Holdenville	58.7	92	2	26	31	256	60	12.80	3.01	24	Webbers Falls	58.9	90	2	30	31	249	59	12.11	2.95	10
McAlester	58.7	91	6	27	31	260	65	12.47	6.72	24	Westville	*****	***	***	***	***	*****	*****	*****	*****	***
Okmulgee	57.0	90	2	26	31	293	46	6.54	2.04	24											
<b>SOUTHWEST</b>																					
Altus	58.6	93	5	18	31	277	78	.65	.33	25	Hollis	57.5	92	5	15	31	296	62	.28	.15	24
Apache	57.4	91	5	20	31	297	62	1.98	.77	24	Mangum	56.9	92	5	16	31	314	62	.63	.30	25
Fort Cobb	57.0	91	5	19	31	307	59	1.58	.68	25	Medicine Park	58.7	91	5	24	31	262	67	2.41	.94	9
Grandfield	60.4	95	2	22	31	246	102	1.56	.80	24	Tipton	59.2	92	2	21	31	266	85	.93	.69	25
Hinton	56.3	91	2	18	31	323	53	1.78	.93	25	Walters	59.6	93	5	22	31	251	85	1.80	.92	24
Hobart	57.5	91	5	17	31	297	64	.96	.61	25											
<b>SOUTH CENTRAL</b>																					
Ada	58.3	92	2	24	31	****	****	7.45	2.78	24	Lane	60.2	93	6	28	31	233	84	8.49	2.70	24
Ardmore	61.0	93	6	26	31	222	97	5.12	3.09	24	Madill	61.0	92	6	26	31	226	103	5.11	2.28	24
Burneyville	61.1	94	15	24	31	231	109	3.78	1.73	24	Newport	60.5	92	15	24	31	230	90	5.36	2.70	24
Byars	59.1	91	5	23	31	251	70	6.60	1.68	24	Pauls Valley	59.2	93	5	24	31	257	76	5.54	1.72	24
Centrahoma	59.6	92	6	26	31	249	81	9.30	4.05	24	Ringling	61.2	93	15	23	31	225	108	1.86	.96	24
Durant	61.9	94	6	28	31	203	108	6.15	2.09	24	Sulphur	58.8	89	15	23	31	271	79	6.12	2.53	24
Fittstown	58.6	90	6	24	31	270	71	10.75	5.22	24	Tishomingo	59.5	91	6	26	31	252	82	6.57	3.17	24
Ketchum Ranch	59.4	91	5	23	31	252	80	2.64	1.22	24	Waurika	60.6	93	5	24	31	239	104	2.49	1.04	24
<b>SOUTHEAST</b>																					
Antlers	60.0	92	6	26	31	237	81	8.00	2.17	24	Mt Herman	60.1	90	3	29	31	226	73	8.77	1.61	10
Broken Bow	61.5	94	3	29	31	194	86	7.87	1.44	21	Talihina	59.6	90	6	27	31	243	77	10.56	3.20	10
Clayton	60.0	91	6	28	31	230	77	11.79	3.32	24	Valliant	61.6	93	2	28	31	196	92	6.72	2.05	21
Cloudy	60.6	92	3	28	31	215	78	8.14	1.85	24	Wilburton	59.0	90	6	28	31	254	68	10.84	3.44	24
Hugo	61.5	92	6	29	31	200	93	6.97	1.43	24	Wister	58.5	91	2	27	31	265	63	9.76	2.64	24
Idabel	61.9	92	2	30	31	190	93	6.79	1.22	20											

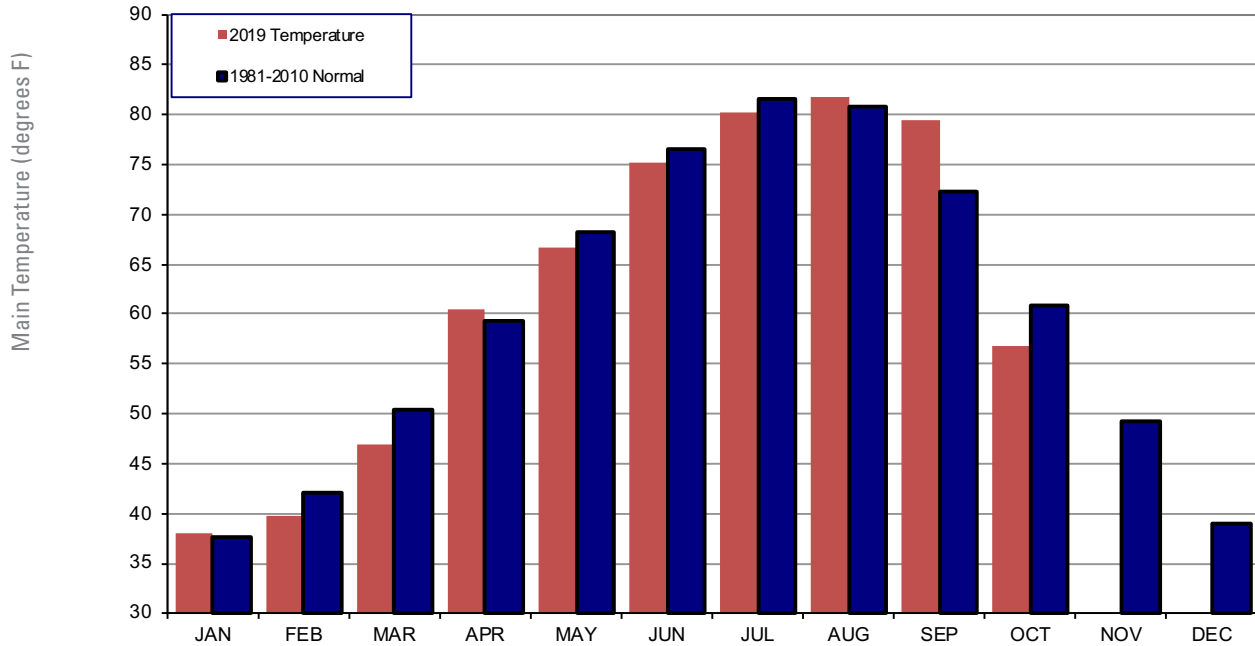
## 2019 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



### October 2019 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Jul-18 (inches)
Panhandle	2.09	-0.48	45th Driest	8.81 (1950)	0.44 (1983)	2.54
North Central	2.07	-0.74	42nd Driest	8.59 (1950)	0.12 (1983)	4.05
Northeast	3.12	-0.26	61st Driest	9.52 (1959)	0.28 (1946)	5.32
West Central	1.43	-0.83	37th Driest	7.63 (1950)	0.04 (1983)	3.13
Central	2.69	-0.15	61st Driest	9.61 (1950)	0.16 (1980)	5.10
East Central	3.95	0.66	41st Wettest	10.03 (1950)	0.36 (1993)	4.54
Southwest	2.88	0.61	39th Wettest	6.60 (1950)	0.03 (1980)	2.90
South Central	5.24	2.49	17th Wettest	8.46 (1950)	0.11 (1998)	1.74
Southeast	7.69	4.07	8th Wettest	12.47 (1950)	0.19 (1993)	3.59
Statewide	3.41	0.53	43rd Wettest	9.07 (1950)	0.42 (1980)	3.72

## 2019 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



### October 2019 Mesonet Temperature Comparison

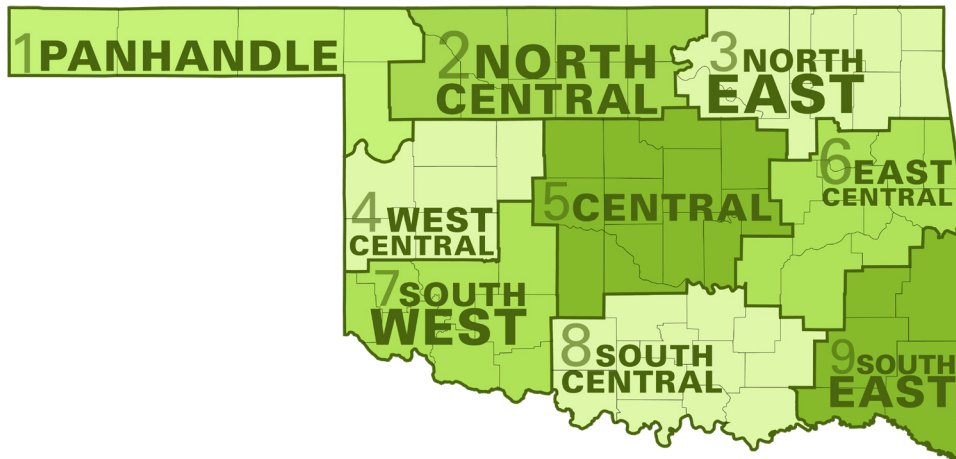
Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Jul-18 (F)
Panhandle	51.2	-6.2	2nd Coolest	65.9 (1963)	50.1 (1925)	55.4
North Central	54.8	-4.9	8th Coolest	68.9 (1963)	51.6 (1925)	58.6
Northeast	55.7	-4.5	6th Coolest	70.2 (1963)	53.9 (1925)	59.9
West Central	55.3	-5.0	7th Coolest	68.5 (1963)	52.1 (1925)	58.9
Central	57.1	-4.3	8th Coolest	70.2 (1963)	55.0 (2009)	60.3
East Central	58.1	-3.6	8th Coolest	70.9 (1963)	55.5 (1976)	61.8
Southwest	58.1	-4.4	8th Coolest	70.2 (1963)	55.4 (1925)	60.8
South Central	59.9	-3.4	12th Coolest	71.0 (1963)	56.8 (1976)	62.6
Southeast	60.4	-1.6	27th Coolest	69.8 (1963)	55.3 (1976)	63.4
Statewide	56.7	-4.2	8th Coolest	69.5 (1963)	54.6 (1925)	60.1



## MESONET EXTREMES FOR OCTOBER 2019

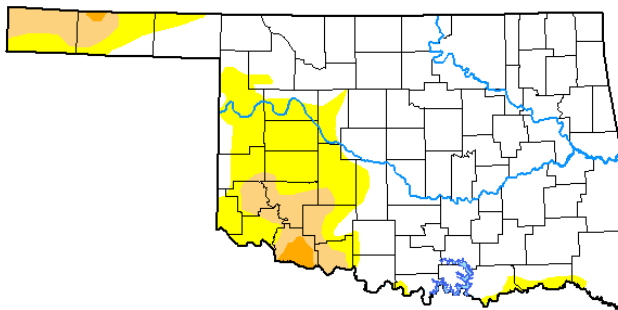
Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	91	9th	Eva	0	31st	Kenton	3.95	Arnett	2.81	3rd	Arnett
North Central	94	2nd	Lahoma	14	31st	Freedom	5.11	Woodward	4.11	3rd	Woodward
Northeast	91	2nd	Pawnee	20	31st	Foraker	15.80	Jay	7.75	6th	Jay
West Central	93	2nd	Butler	12	31st	Camargo	2.07	Camargo	1.28	3rd	Camargo
Central	93	5th	Chickasha	20	31st	Marshall	7.06	Okemah	2.23	24th	Okemah
East Central	92	2nd	Holdenville	25	31st	Hectorville	13.03	Stigler	6.72	24th	McAlester
Southwest	95	2nd	Grandfield	15	31st	Hollis	2.41	Medicine Park	0.94	9th	Medicine Park
South Central	94	15th	Burneyville	23	31st	Byars	10.75	Fittstown	5.22	24th	Fittstown
Southeast	94	3rd	Broken Bow	26	31st	Antlers	11.79	Clayton	3.44	24th	Wilburton
Statewide	95	2nd	Grandfield	0	31st	Kenton	15.80	Jay	7.75	6th	Jay

Oklahoma Climate Divisions



# U.S. Drought Monitor Oklahoma

**October 29, 2019**  
(Released Thursday, Oct. 31, 2019)  
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	75.22	24.78	7.62	0.78	0.00	0.00
<b>Last Week</b> 10-22-2019	55.90	44.10	10.65	1.09	0.00	0.00
<b>3 Months Ago</b> 07-30-2019	81.30	18.70	5.67	0.00	0.00	0.00
<b>Start of Calendar Year</b> 01-01-2019	94.85	5.15	0.00	0.00	0.00	0.00
<b>Start of Water Year</b> 10-01-2018	71.94	28.06	11.08	1.01	0.00	0.00
<b>One Year Ago</b> 10-30-2018	92.31	7.69	1.60	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. See accompanying text summary for forecast statements.*

Author:

David Simeral  
Western Regional Climate Center



[droughtmonitor.unl.edu](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](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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