Oklahoma Monthly Climate Summary

NOVEMBER 2018

OKLAHOMA CLIMATOLOGICAL SURVEY

Much of Oklahoma's weather was downright boring during November – cold and dry with a few warm days in between. Despite that monotony, Mother Nature still managed to sneak in a couple of stretches of exciting weather. The first bout struck on the 12th with Oklahoma's first significant winter storm of the season. Snow fell across the northwestern half of the state and dropped as much as 5 inches of snow. While most of it melted as it fell, enough accumulated across the far northwest to prompt a winter storm warning from the National Weather Service (NWS). The arctic blast that accompanied the snow plunged temperatures into the teens and twenties the next morning, and wind chills fell into the single digits. The bigger show came on November's final day, however. A powerful storm system funneled unusually warm, moist air into the state from the south. A round of storms erupted across western Oklahoma and quickly became severe. Hail was the main hazard west of Interstate 35, but the storms were more intense to the east. Numerous instances of wind damage were reported east of I-35, along with at least two confirmed tornadoes from a single long-lived supercell. The first tornado, rated EF-1, touched down near Webbers Falls to northeast of Gore, damaging trees, farm equipment and barns. The second twister, a more powerful EF-2 tornado, traveled along the eastern shore of Lake Tenkiller into the outskirts of Cookson, destroying numerous homes, boat docks, and airplane hangars.

November 2018 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	82°F	Hollis	29
Low Temperature	7°F	Eva	13
High Precipitation	3.88 in.	Broken Bow	--
Low Precipitation	0.15 in.	Hobart	--

The month finished as the 11th coldest November on record with a statewide average of 44.5 degrees, 4.8 degrees below normal. Those records began in 1895. The Mesonet site at Eva recorded the month's lowest temperature of 7 degrees on the 13th. November's highest reading was 82 degrees at Hollis on the 29th. Climatological fall (August-November) ranked as 26th coolest with a statewide average of 59.5 degrees, 1.3 degrees below normal. The first 11 months of the year were 0.3 degrees below normal, the 46th warmest January-November on record.

Following three consecutive months of wetter than normal conditions, Oklahoma finally saw its luck turn sour during November. The August-October statewide average precipitation total of 16.27 inches ranked as the fifth wettest such period on record, more than 9 inches above normal. Contrast that with November, which finished with a statewide average of 0.94 inches, 1.57 inches below normal. That ranked the month as the 32nd driest November on record. Thirteen of the Mesonet's 120 stations recorded a quarter-inch or less, and another 25 failed to reach the half-inch mark. Boise City and Kenton shared the lowest total at 0.09 inches. Broken Bow led the state with 3.88 inches. Fall ended on the wet side with a statewide average of 12.93 inches, 3.35 inches above normal and ranked as the 10th wettest autumn on record. The year remains on track to finish well above normal with a January-November average of 36.98 inches, the 23rd wettest such period with a surplus of 2.54 inches.

November 2018 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2018)
Month (November)	44.5°F	-4.8°F	11th Coolest
Season-to-Date (Sept-Nov)	59.5°F	-1.3°F	26th Coolest
Year-to-Date (Jan-Nov)	62.1°F	0.3°F	26th Warmest

Precipitation

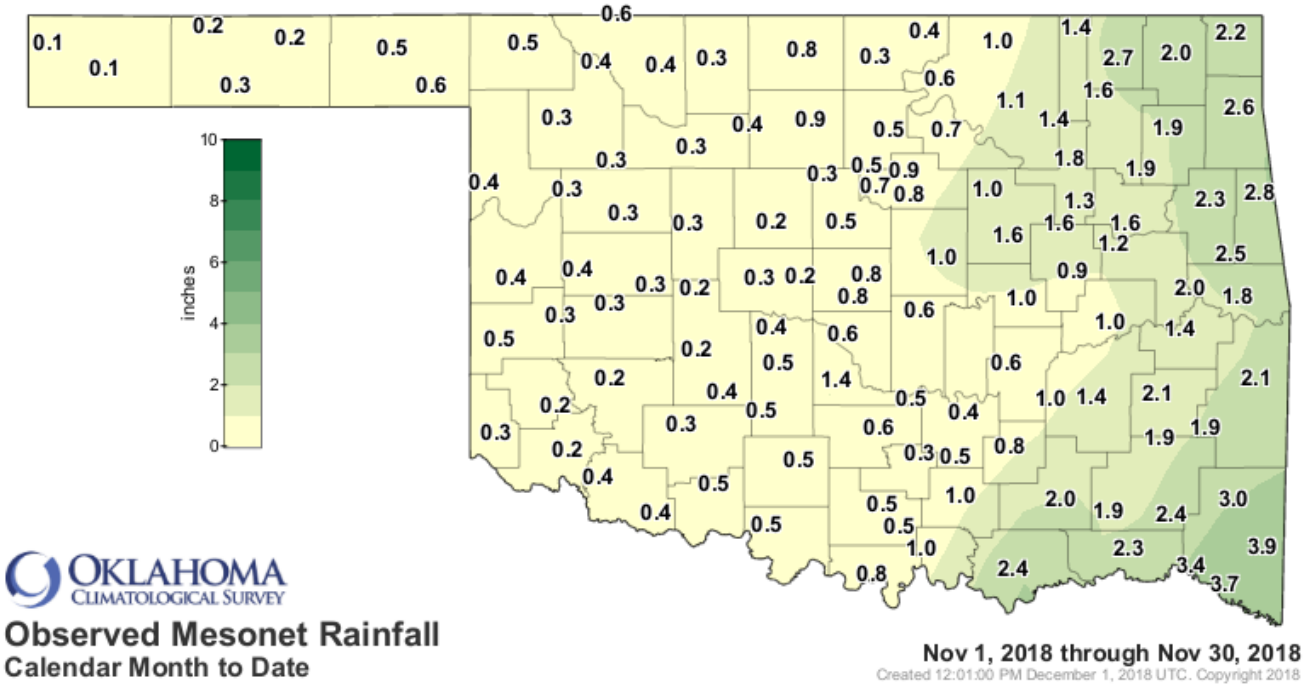
	Total	Depart.	Rank (1895-2018)
Month (November)	0.94 in.	-1.57 in.	32nd Driest
Season-to-Date (Sept-Nov)	12.93	3.35 in.	10th Wettest
Year-to-Date (Jan-Nov)	36.98 in.	2.54 in.	23rd Wettest

Depart. = departure from 30-year normal

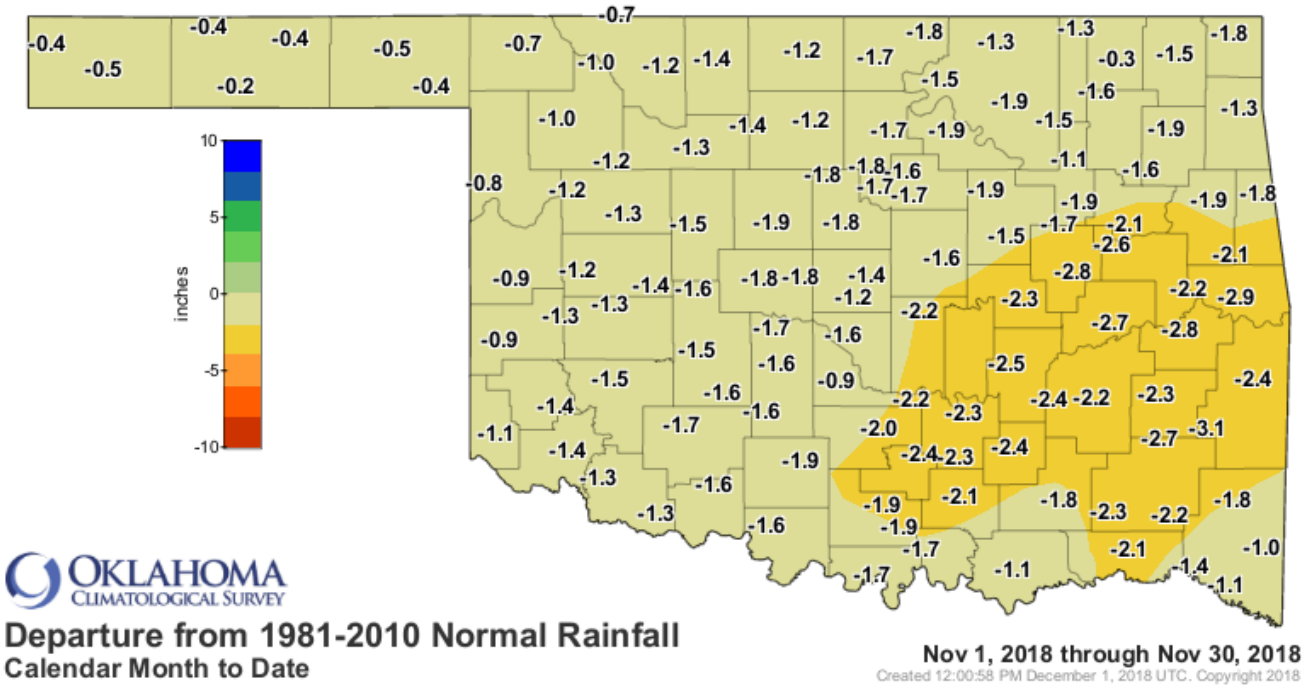
While drought didn't increase substantially during the month, its potential to do so in the future certainly did. According to the U.S. Drought Monitor, the percentage of the state

considered in drought increased slightly from 1.6 percent to 3.27 percent through November. The percentage considered "Abnormally Dry," a drought precursor, jumped from 6 percent to 15 percent over the same period. The abundant rains during the first two months of fall reduced drought in the state dramatically, from 27 percent in early September to 3.27 percent at the end of November. The December outlooks from the Climate Prediction Center (CPC) saw increased odds for above normal temperatures across the entire state, as well as above normal precipitation for all but the Panhandle. Their December Drought Outlook expected the drought areas across northeastern Oklahoma to persist through the month, but no additional development was anticipated.

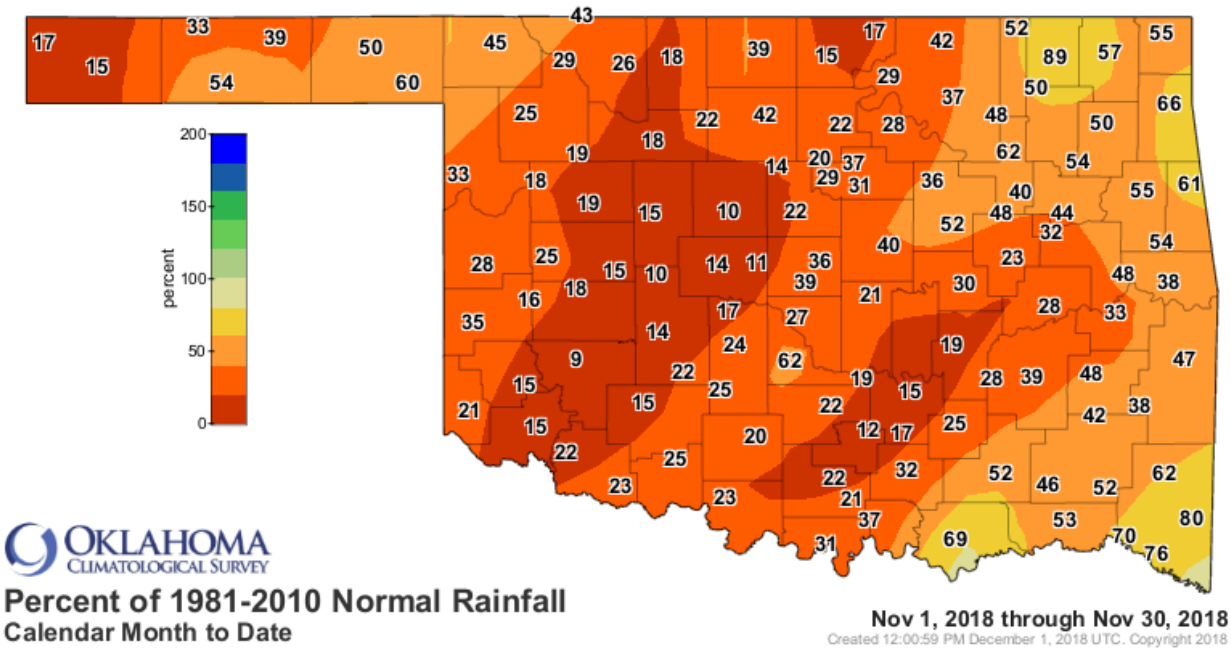
NOVEMBER 2018 OBSERVED PRECIPITATION



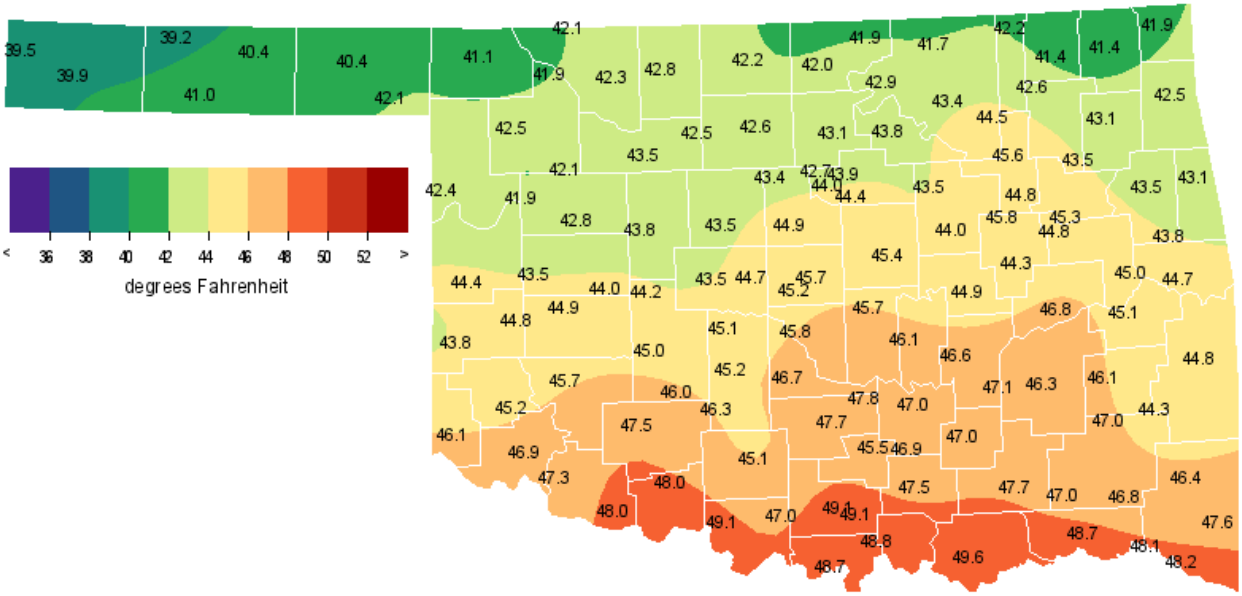
NOVEMBER 2018 DEPARTURE FROM NORMAL PRECIPITATION



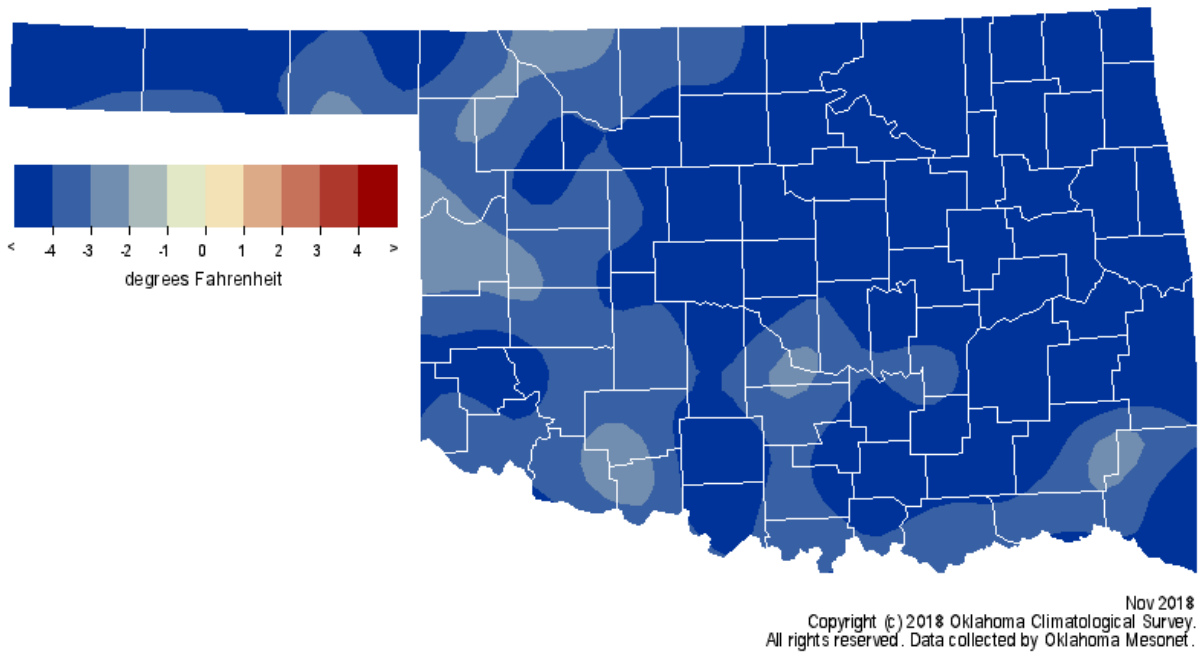
NOVEMBER 2018 PERCENT OF NORMAL PRECIPITATION



NOVEMBER 2018 AVERAGE TEMPERATURE



NOVEMBER 2018 DEPARTURE FROM NORMAL TEMPERATURE

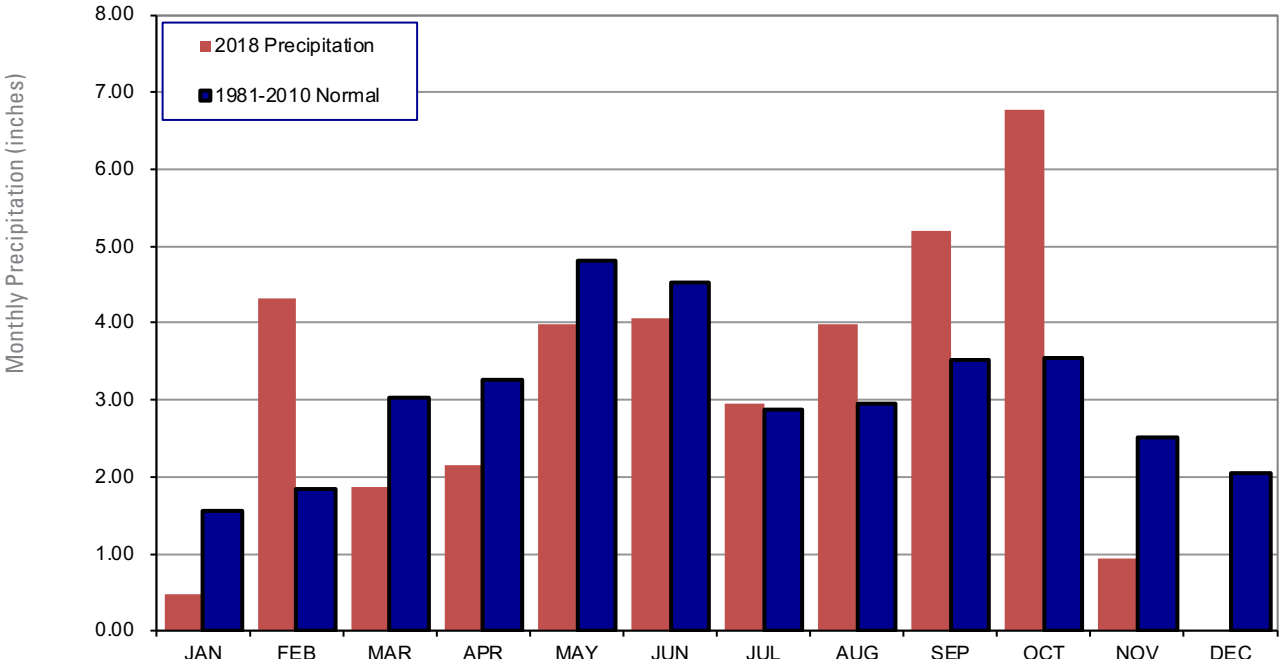


MESONET MONTHLY SUMMARY FOR NOVEMBER 2018

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	42.4	71	6	9	13	677	0	.38	.23	13
Beaver	40.5	71	15	9	13	735	0	.45	.16	13
Boise City	39.9	71	24	11	13	753	0	.09	.06	13
Buffalo	41.1	70	15	11	13	717	0	.54	.24	8
Eva	39.2	73	28	7	13	775	0	.18	.12	13
NORTH CENTRAL										
Alva	42.3	70	5	11	13	681	0	.41	.28	8
Blackwell	42.0	73	24	14	13	691	0	.29	.13	8
Breckinridge	42.6	72	24	14	13	672	0	.88	.51	30
Cherokee	42.7	71	5	13	13	668	0	.30	.18	8
Fairview	43.4	72	15	13	13	648	0	.29	.13	13
Freedom	41.9	70	5	9	13	693	0	.41	.27	8
Lahoma	42.5	71	5	12	13	674	0	.40	.17	8
NORTHEAST										
Bixby	44.8	76	24	16	14	607	0	1.25	.37	3
Burbank	42.9	74	24	13	14	662	0	.63	.30	30
Copan	42.2	70	24	14	14	684	0	1.40	.50	30
Foraker	41.7	72	24	13	13	698	0	.98	.42	30
Inola	43.5	72	24	15	14	645	0	1.91	.81	30
Jay	42.5	72	24	12	14	674	0	2.63	.70	30
Miami	42.0	70	24	13	14	691	0	2.22	.65	30
Nowata	41.4	71	24	12	14	707	0	2.74	1.51	30
WEST CENTRAL										
Bessie	44.8	73	29	13	13	605	0	.30	.17	13
Butler	43.4	73	6	12	13	647	0	.39	.17	14
Camargo	41.9	73	15	9	13	693	0	.26	.14	13
Cheyenne	44.4	74	15	12	13	619	0	.35	.20	13
Elk City	44.8	75	29	15	13	607	0	.25	.12	13
CENTRAL										
Acme	46.3	73	6	14	14	560	0	.54	.22	12
Bristow	43.9	76	24	12	14	632	0	1.60	.56	30
Lake Carl Blac	42.7	73	24	13	14	668	0	.46	.16	8
Chandler	45.4	73	24	16	14	588	0	1.03	.38	30
Chickasha	45.3	75	29	16	14	591	0	.50	.34	12
El Reno	43.5	72	6	16	14	645	0	.28	.11	14
Guthrie	44.9	72	24	16	13	602	0	.50	.20	30
Kingfisher	43.5	70	5	17	13	644	0	.21	.09	12
Marena	44.0	74	24	16	13	630	0	.69	.25	30
Minco	45.1	72	6	17	13	598	0	.36	.21	30
Marshall	43.4	72	24	17	13	648	0	.30	.14	30
EAST CENTRAL										
Cookson	43.9	72	30	16	10	634	0	2.48	1.12	30
Eufaula	46.8	75	24	22	15	546	0	1.04	.37	3
Haskell	44.7	74	24	17	14	608	0	1.20	.51	30
Hectorville	45.8	75	24	17	14	575	0	1.59	.51	30
Holdenville	46.6	75	24	18	14	553	0	.58	.25	3
McAlester	46.3	75	24	19	15	560	0	1.37	.54	30
Okmulgee	44.3	76	24	14	14	620	0	.85	.25	30
SOUTHWEST										
Altus	46.9	76	24	21	13	542	0	.24	.24	12
Apache	46.0	73	6	17	13	569	0	.44	.20	12
Fort Cobb	45.0	73	6	17	14	601	0	.23	.23	12
Grandfield	48.0	77	29	22	14	509	0	.39	.39	12
Hinton	44.2	72	6	14	13	625	0	.18	.09	12
Hobart	45.6	73	6	17	13	581	0	.15	.10	12
SOUTH CENTRAL										
Ada	46.9	75	24	16	14	542	0	.40	.19	12
Ardmore	49.1	78	24	20	14	478	0	.52	.21	3
Burneyville	48.7	79	24	15	14	490	0	.75	.56	30
Byars	47.7	74	24	16	14	518	0	.52	.22	12
Centrahoma	46.9	77	24	20	15	543	0	.78	.35	30
Durant	49.5	76	5	25	15	464	0	2.43	1.23	6
Fittstown	46.9	75	24	20	26	542	0	.49	.16	8
Ketchum Ranch	48.1	75	24	18	14	508	0	.46	.29	12
SOUTHEAST										
Antlers	47.0	76	24	20	15	540	0	1.90	.69	3
Broken Bow	47.6	76	29	22	15	521	0	3.88	1.37	7
Clayton	47.0	74	6	20	15	539	0	1.92	.50	30
Cloudy	46.8	74	24	22	27	546	0	2.44	.81	3
Hugo	48.7	76	29	23	15	489	0	2.34	.69	30
Idabel	48.2	76	29	24	27	504	1	3.66	1.23	12

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
Goodwell	41.0	73	28	11	13	721	0	.26	.21	13
Hooker	40.3	70	28	9	12	740	0	.23	.19	13
Kenton	39.5	71	28	11	13	766	0	.09	.07	13
Slapout	42.1	71	15	11	13	688	0	.61	.19	13
May Ranch	42.1	69	5	11	13	686	0	.56	.27	8
Medford	42.1	71	24	12	13	686	0	.76	.55	30
Newkirk	41.9	72	24	10	13	694	0	.37	.21	30
Red Rock	43.1	74	24	14	13	656	0	.49	.22	8
Seiling	42.1	72	15	10	13	686	0	.28	.10	13
Woodward	42.7	70	15	9	13	670	0	.34	.14	8
Pawnee	43.8	74	24	14	14	637	0	.74	.29	30
Porter	45.2	74	24	18	14	593	0	1.62	.79	30
Pryor	43.0	73	24	15	14	660	0	1.88	.66	30
Skiatook	44.5	74	24	14	14	615	0	1.44	.39	3
Talala	42.7	71	24	15	14	670	0	1.57	.56	3
Tulsa	45.6	75	24	18	14	583	0	1.75	.59	3
Vinita	41.5	72	24	12	14	706	0	1.97	.62	30
Wynona	43.4	75	24	14	14	648	0	1.11	.65	30
Erick	43.7	76	29	14	13	639	0	.47	.23	14
Putnam	42.9	69	6	11	13	663	0	.30	.14	13
Watonga	43.8	69	5	13	13	636	0	.27	.12	13
Weatherford	44.1	70	6	15	13	628	0	.25	.13	13
Norman	45.8	73	6	18	14	575	0	.60	.31	30
Oilton	43.5	75	24	11	14	644	0	1.04	.29	30
OKC East	45.2	73	6	17	14	594	0	.80	.50	30
Okemah	45.0	74	29	17	14	601	0	.99	.40	30
Perkins	44.5	73	24	16	14	615	0	.78	.33	30
Seminole	46.2	75	24	17	14	564	0	.80	.37	30
Shawnee	45.7	73	29	17	14	579	0	.58	.31	30
Spencer	45.6	72	6	15	14	581	0	.79	.36	30
Stillwater	43.8	74	24	14	14	635	0	.90	.47	30
Washington	46.7	75	29	16	14	550	0	1.39	1.09	30
Yukon	44.7	71	6	16	13	608	0	.22	.14	30
Sallisaw	44.8	73	29	18	15	607	0	1.83	.80	30
Stigler	45.1	74	30	19	15	597	0	1.39	.37	30
Stuart	47.0	75	24	21	10	539	0	.97	.59	30
Tahlequah	43.5	73	30	16	15	644	0	2.31	1.04	30
Webbers Falls	45.0	73	29	19	15	600	0	1.98	1.03	30
Westville	43.1	71	24	16	10	656	0	2.80	1.42	30
Hollis	46.2	82	29	18	13	565	0	.28	.20	12
Mangum	45.2	75	24	16	13	595	0	.23	.23	12
Medicine Park	47.5	74	29	18	13	525	0	.31	.25	12
Tipton	47.3	77	24	21	13	532	0	.36	.35	12
Walters	48.0	76	24	19	14	509	0	.52	.32	12
Lane	47.7	76	24	22	15	519	0	1.97	.68	30
Madill	48.8	77	29	20	14	487	0	.99	.34	3
Newport	49.1	79	24	18	14	478	0	.53	.29	30
Pauls Valley	47.7	77	24	16	14	519	0	.58	.32	30
Ringling	48.9	77	24	17	14	483	0	.29	.18	30
Sulphur	47.1	76	24	15	14	****	****	.32	.12	12
Tishomingo	47.4	76	24	22	15	527	0	.97	.47	3
Waurika	49.1	78	24	17	14	478	0	.47	.25	30
Mt Herman	46.4	73	29	21	15	558	0	2.99	.94	3
Talihina	11.0	74	30	***	6	558	0	2.25	.63	30
Valliant	48.1	75	29	22	27	506	0	3.39	1.26	7
Wilburton	46.1	75	6	19	15	566	0	2.10	1.12	30
Wister	44.8	74	24	19	27	607	0	2.13	1.15	30

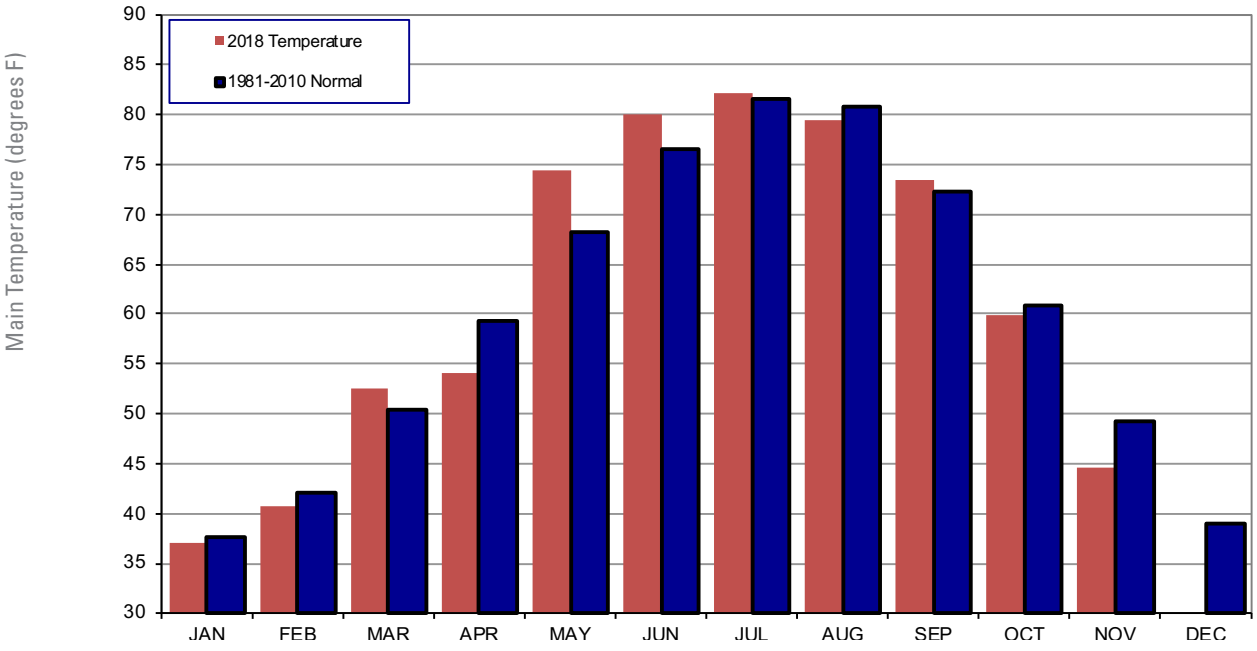
2018 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



November 2018 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Nov-17 (inches)
Panhandle	0.31	-0.52	46th Driest	4.08 (1909)	0.00 (1921)	0.04
North Central	0.44	-1.29	31st Driest	6.61 (1964)	0.00 (1910)	0.19
Northeast	1.61	-1.54	43rd Driest	7.04 (1992)	0.05 (1910)	0.79
West Central	0.32	-1.17	30th Driest	6.96 (1909)	0.00 (1949)	0.12
Central	0.70	-1.71	32nd Driest	6.56 (1992)	0.01 (1955)	0.24
East Central	1.57	-2.31	34th Driest	9.86 (1946)	0.32 (1910)	0.32
Southwest	0.30	-1.41	27th Driest	6.63 (2004)	0.00 (1949)	0.10
South Central	0.81	-2.08	24th Driest	8.87 (1902)	0.07 (1949)	0.11
Southeast	2.60	-2.05	52nd Driest	12.58 (2015)	0.37 (2017)	0.37
Statewide	0.94	-1.57	32nd Driest	6.04 (2015)	0.13 (1949)	0.26

2018 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



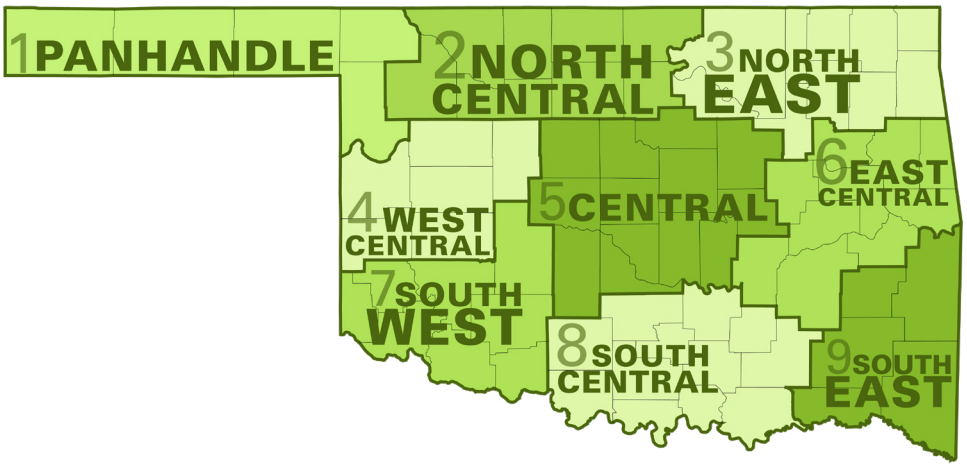
November 2018 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Nov-17 (F)
Panhandle	40.7	-4.3	17th Coolest	51.5 (1999)	35.5 (1929)	49.0
North Central	42.4	-4.7	16th Coolest	54.5 (1999)	39.0 (1929)	49.6
Northeast	43.2	-5.7	8th Coolest	56.4 (1999)	41.1 (1929)	51.6
West Central	43.8	-4.2	22nd Coolest	54.8 (1999)	39.4 (1929)	51.6
Central	44.8	-5.0	11th Coolest	57.1 (1999)	42.0 (1929)	53.6
East Central	45.1	-5.7	8th Coolest	58.9 (1909)	43.3 (1929)	54.6
Southwest	46.4	-4.1	19th Coolest	56.7 (1999)	42.4 (1929)	54.2
South Central	47.7	-4.6	15th Coolest	58.6 (1999)	43.5 (1929)	55.8
Southeast	46.8	-4.8	12th Coolest	58.3 (1909)	43.7 (1929)	56.1
Statewide	44.5	-4.8	11th Coolest	56.1 (1999)	41.1 (1929)	52.8

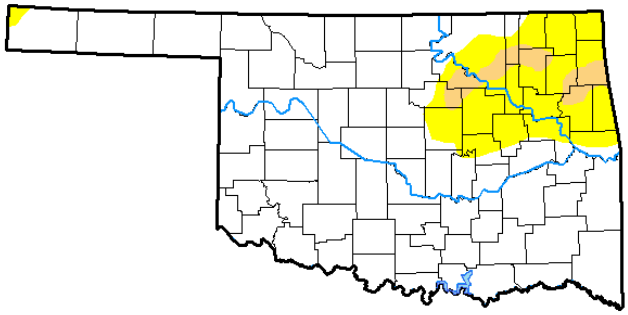
MESONET EXTREMES FOR NOVEMBER 2018

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	73	28th	Goodwell	7	13th	Eva	0.61	Slapout	0.24	8th	Buffalo
North Central	74	24th	Red Rock	9	13th	Woodward	0.88	Breckinridge	0.55	30th	Medford
Northeast	76	24th	Bixby	12	14th	Nowata	2.74	Nowata	1.51	30th	Nowata
West Central	76	29th	Erick	9	13th	Camargo	0.47	Erick	0.23	14th	Erick
Central	76	24th	Bristow	11	14th	Oilton	1.60	Bristow	1.09	30th	Washington
East Central	76	24th	Okmulgee	14	14th	Okmulgee	2.80	Westville	1.42	30th	Westville
Southwest	82	29th	Hollis	14	13th	Hinton	0.52	Walters	0.39	12th	Grandfield
South Central	79	24th	Burneyville	15	14th	Burneyville	2.43	Durant	1.23	6th	Durant
Southeast	76	29th	Broken Bow	19	15th	Talihina	3.88	Broken Bow	1.37	7th	Broken Bow
Statewide	82	29th	Hollis	7	13th	Eva	3.88	Broken Bow	1.51	30th	Nowata

Oklahoma Climate Divisions



U.S. Drought Monitor
Oklahoma



November 27, 2018
(Released Thursday, Nov. 29, 2018)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	81.67	18.33	3.27	0.00	0.00	0.00
Last Week *11-20-2018*	92.22	7.78	2.12	0.00	0.00	0.00
3 Months Ago *08-28-2018*	53.85	46.15	31.47	18.63	5.65	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 *09-25-2018*	72.93	27.07	9.11	4.16	0.00	0.00
One Year Ago *11-28-2017*	27.12	72.88	39.90	20.80	0.78	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:
Richard Heim
NCEI/NOAA

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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