

Hot and dry weather dominated Oklahoma’s weather headlines for much of September, a drastic change from the extraordinarily mild and wet August the state had just experienced. Many wondered if fall’s premiere would wait until October, but those fears were soon alleviated with the arrival of a strong storm system during the month’s final week. High temperatures in the 50s and 60s along with generous rainfall amounts of 2-4 inches provided a pleasant burst of autumn for much of the state and a welcome bout of moisture for Oklahoma’s wheat farmers. The gray, rainy weather managed to avoid southeastern Oklahoma, leaving that area of the state stuck in summer mode for a bit longer. Eastern Oklahoma saw dry conditions expand through the end of the month as drought tried to mount a comeback.

According to preliminary data from the Oklahoma Mesonet, the statewide average precipitation total was 2.60 inches,

normal and the 13th wettest such period on record.

The state registered its last triple-digit temperature of September – and possibly the year – on the 21st with Beaver, Buffalo and Cherokee hitting 100 degrees. The heat was not over yet, however. While the northwestern half of the state cooled down a few days later with the arrival of the large storm system, the rest of the state continued to bake. The heat index rose to as high as 97 degrees on the 27th in Idabel in the far southeast. During that same period, highs across western Oklahoma were in the 50s and 60s. That final week’s brush with milder air was enough to bring the September statewide average down to a more respectable 72.9 degrees, 0.6 degrees above normal. The month’s highest temperature of 101 degrees occurred at several sites on two separate days. Triple-digit temperatures were uncommon, however. The 121 Mesonet sites reached 100 degrees a mere 10

September 2017 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	101°F	Multiple	Multiple
Low Temperature	44°F	Multiple	7
High Precipitation	9.87 in.	Grandfield	--
Low Precipitation	0.00 in.	Cloudy, Hugo	--

0.93 inches below normal and the 50th driest September since records began in 1895. The statewide average failed to reflect the stark difference in rainfall amounts across the state, however. Much of the eastern third fell 3-4 inches below normal. Southeastern Oklahoma saw its driest September on record with an average of 0.45 inches, 3.82 inches below normal. The previous record low total of 0.57 inches was set during the significant drought years of 1931 and 1956. Parts of east central and south central Oklahoma experienced similar deficits. The Panhandle averaged 3.34 inches, 1.52 inches above normal to rank as their 16th wettest September. West central and southwestern Oklahoma also saw a significant moisture surplus. The Mesonet sites at Cloudy and Hugo reported no rainfall for the month, and another six had a tenth of an inch or less. Grandfield recorded 9.87 inches to lead the state, a whopping 7.1 inches above normal. Of the 121 Mesonet sites, 46 recorded at least 3 inches of moisture. The year through September remained significantly wet with a statewide average of 33.52 inches, over 5 inches above

September 2017 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2017)
Month (September)	72.9°F	0.6°F	55th Coolest
Year-to-Date (Jan-Sept)	65.1°F	1.7°F	16th Warmest

Precipitation

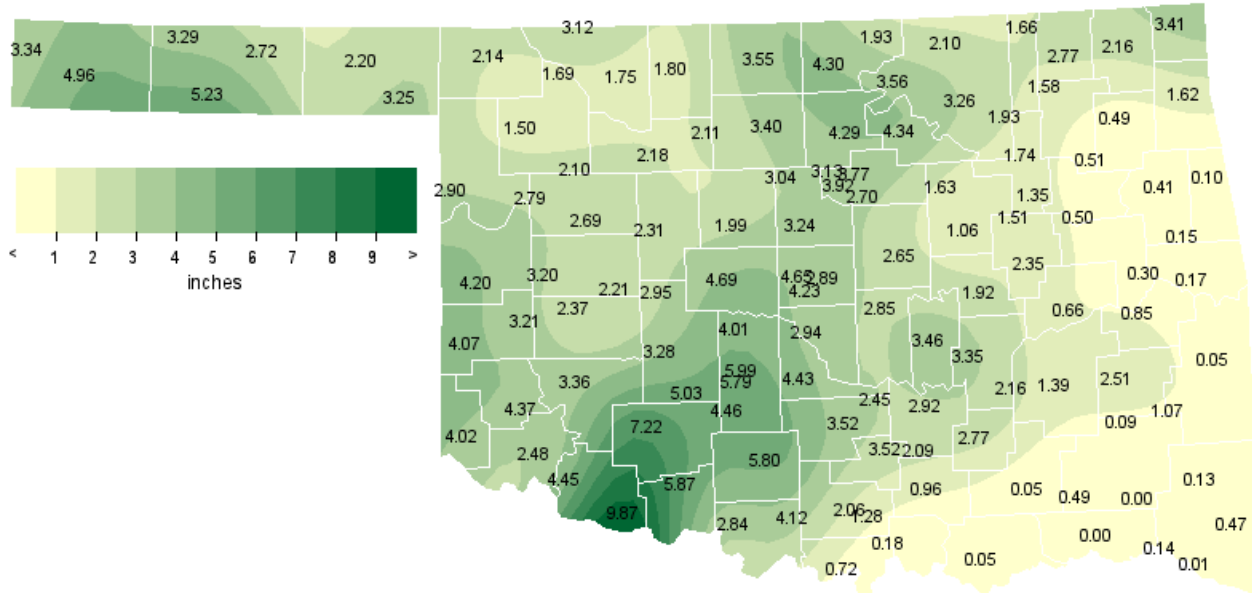
	Total	Depart.	Rank (1895-2017)
Month (September)	2.60 in.	0.93 in.	50th Driest
Year-to-Date (Jan-Sept)	33.52 in.	5.13 in.	13th Wettest

Depart. = departure from 30-year normal

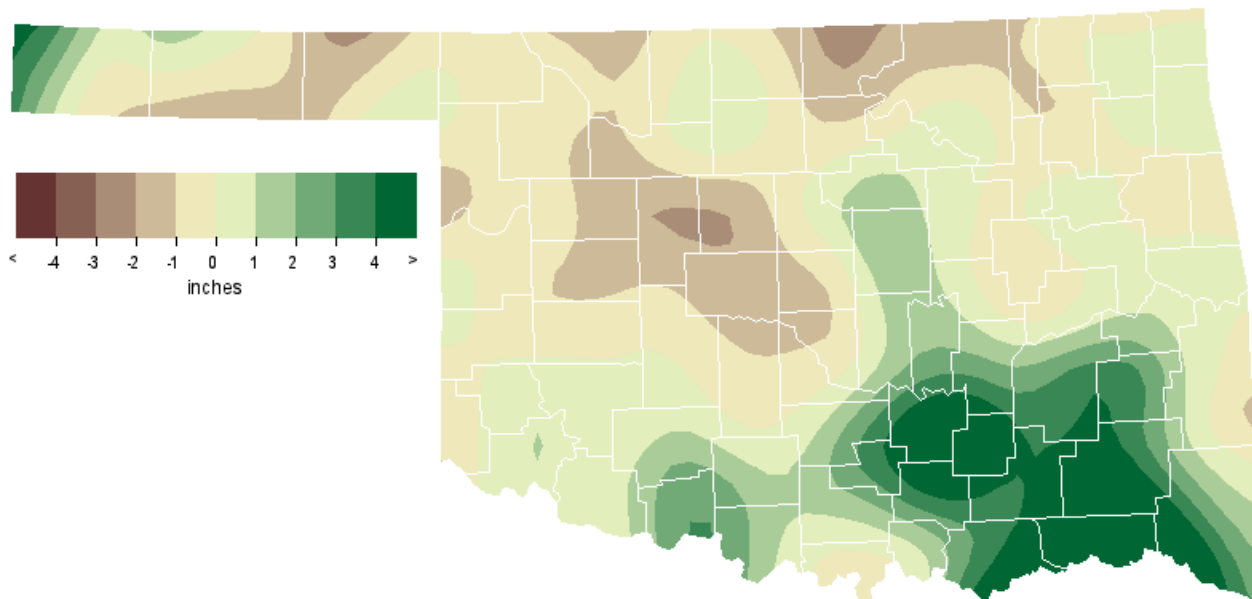
times during September. The January-September statewide average of 65.1 degrees was 1.7 degrees above normal, the 16th warmest such period on record.

Oklahoma was drought free at the beginning of the month, and only 2 percent of the state was considered “abnormally dry” by the U.S. Drought Monitor. While not a drought designation, abnormally dry can indicate areas where drought development is likely. September’s last Drought Monitor report listed 33 percent of the state in abnormally dry conditions and a little less than 1 percent suffering from moderate drought.

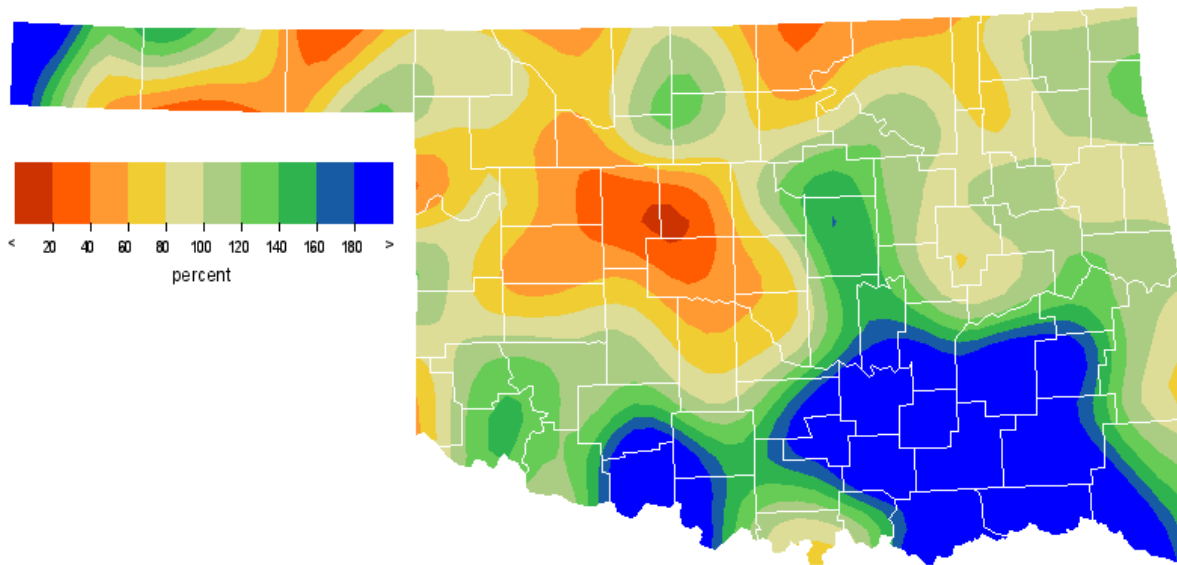
SEPTEMBER 2017 OBSERVED PRECIPITATION



SEPTEMBER 2017 DEPARTURE FROM NORMAL PRECIPITATION



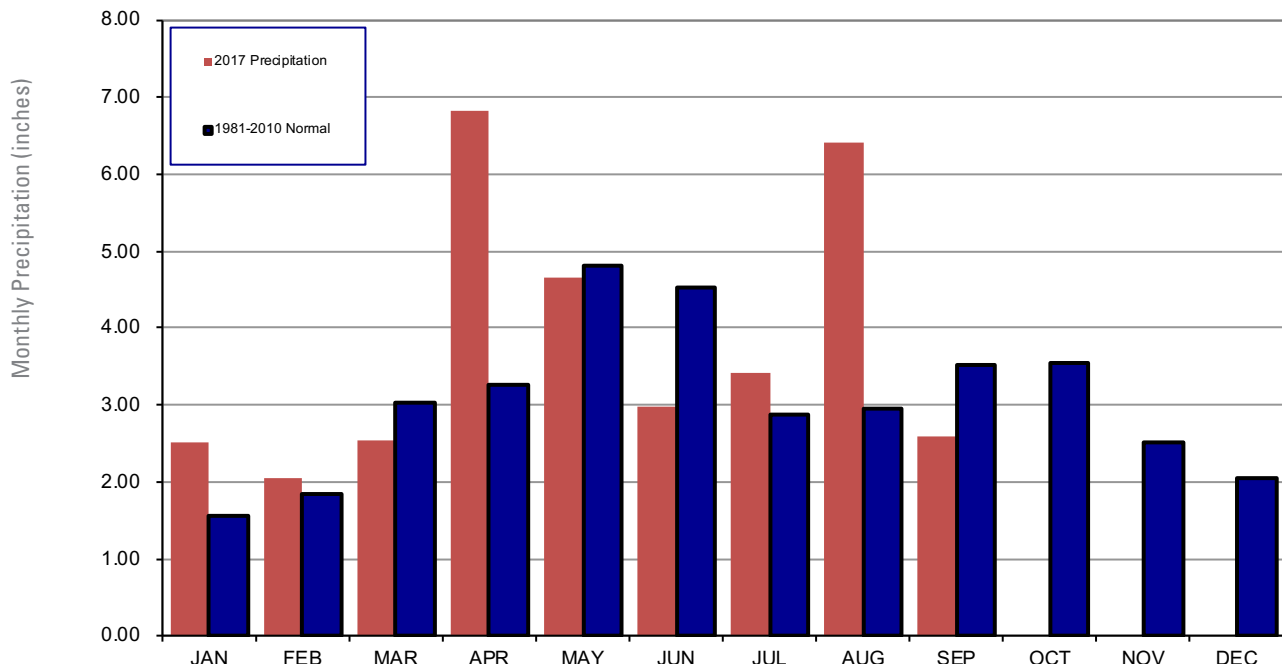
SEPTEMBER 2017 PERCENT OF NORMAL PRECIPITATION



MESONET MONTHLY SUMMARY FOR SEPTEMBER 2017

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		
PANHANDLE																					
Arnett	71.1	97	4	46	6	22	204	2.90	1.16	25	Goodwell	70.1	98	14	47	6	40	194	5.23	2.25	23
Beaver	71.9	100	21	44	6	30	238	2.20	1.28	24	Hooker	70.3	98	14	46	6	37	197	2.72	.69	24
Boise City	66.7	92	14	45	20	66	117	4.96	1.91	23	Kenton	67.6	94	14	45	21	59	139	3.34	1.12	24
Buffalo	73.9	101	4	43	6	14	280	2.14	1.77	25	Slapout	71.8	99	4	48	6	28	233	3.25	2.22	25
Eva	67.9	97	14	45	6	51	138	3.29	1.12	25											
NORTH CENTRAL																					
Alva	73.7	100	14	45	6	9	269	1.75	1.13	25	May Ranch	73.2	99	14	48	6	13	260	3.12	2.34	25
Blackwell	73.0	96	4	45	6	7	245	4.30	1.22	17	Medford	73.4	98	21	45	6	8	260	3.55	2.15	25
Breckinridge	73.9	98	21	46	6	8	274	3.40	1.46	25	Newkirk	72.6	93	19	47	6	8	235	1.93	.51	26
Cherokee	74.4	100	21	49	6	5	287	1.80	.88	2	Red Rock	74.0	99	4	46	6	5	275	4.29	2.09	26
Fairview	73.7	99	14	46	6	8	268	2.18	.96	25	Seiling	72.7	98	14	43	6	13	245	2.10	1.38	25
Freedom	73.5	101	14	44	6	11	266	1.69	1.03	25	Woodward	72.6	97	4	45	6	18	246	1.50	.80	25
Lahoma	73.6	97	21	50	6	8	264	2.11	.98	2											
NORTHEAST																					
Bixby	73.0	94	4	47	6	3	242	1.35	.67	27	Pawnee	73.1	94	4	47	6	5	249	4.34	2.27	26
Burbank	72.9	97	4	44	6	7	244	3.56	1.65	26	Porter	73.7	94	4	49	7	1	261	.50	.27	17
Copan	72.6	94	4	46	6	7	234	1.66	.75	17	Pryor	72.3	94	20	43	6	7	227	.49	.42	17
Foraker	72.3	93	4	46	6	9	228	2.10	1.51	26	Skiatook	73.9	93	16	49	6	5	271	1.93	.85	17
Inola	72.7	94	20	47	7	4	234	.51	.29	17	Talala	73.3	95	20	48	6	5	254	1.58	1.04	27
Jay	71.8	92	20	43	6	13	217	1.62	1.59	17	Tulsa	75.0	96	4	52	7	1	300	1.74	.86	27
Miami	71.5	92	20	46	6	10	205	3.41	2.00	17	Vinita	72.0	95	4	44	7	9	218	2.16	1.18	17
Nowata	71.5	93	4	43	6	12	206	2.77	1.77	17	Wynona	73.0	94	16	48	6	5	243	3.26	1.50	17
WEST CENTRAL																					
Bessie	72.6	96	14	49	6	9	237	2.37	.89	25	Erick	71.0	97	4	45	6	11	190	4.07	2.79	25
Butler	72.1	97	14	45	6	10	222	3.20	2.06	25	Putnam	72.4	97	14	45	6	14	236	2.69	1.41	25
Camargo	71.4	97	14	42	6	15	207	2.79	1.38	25	Watonga	72.9	95	14	50	6	12	248	2.31	.77	26
Cheyenne	71.9	94	14	49	6	16	222	4.20	2.56	25	Weatherford	73.1	97	14	51	6	13	255	2.21	.76	25
Elk City	72.1	95	14	51	6	9	221	3.21	1.79	25											
CENTRAL																					
Acme	73.1	95	14	47	6	7	249	4.46	1.86	27	Ninnekah	73.6	97	14	49	13	4	262	5.79	2.08	27
Bowlegs	73.2	95	16	47	6	6	251	3.46	1.54	26	Norman	73.6	93	14	50	6	5	263	2.94	1.30	27
Bristow	71.9	93	16	44	7	9	216	1.06	.49	27	Oilton	72.0	93	4	42	6	12	222	1.63	.64	17
Lake Carl Blac	73.1	97	19	44	6	6	249	3.13	1.85	26	OKC East	73.5	93	19	50	6	4	260	4.23	2.24	27
Chandler	73.2	93	19	49	6	4	251	2.65	.99	17	OKC North	74.8	95	19	53	6	4	296	4.65	2.33	27
Chickasha	73.7	98	14	50	6	4	264	5.99	2.19	27	Okemah	73.5	95	4	47	7	3	258	1.92	1.30	17
El Reno	71.3	93	14	44	6	14	203	4.69	2.79	26	Perkins	74.0	97	19	48	6	5	276	2.70	1.22	26
Guthrie	74.8	97	19	49	6	4	299	3.24	2.23	26	Shawnee	73.8	95	16	48	6	7	270	2.85	1.15	17
Kingfisher	74.4	98	21	49	6	6	289	1.99	.88	26	Spencer	73.8	94	14	48	6	5	270	2.89	1.34	27
Marena	74.0	96	19	50	6	5	276	3.92	2.62	26	Stillwater	73.5	96	19	47	6	4	259	3.77	2.40	26
Minco	72.9	94	14	52	6	7	244	4.01	1.67	27	Washington	73.2	96	14	50	7	4	249	4.43	1.58	26
Marshall	74.4	98	19	46	6	6	288	3.04	1.59	26											
EAST CENTRAL																					
Cookson	71.7	93	20	44	6	13	213	.15	.08	17	Sallisaw	73.6	95	20	49	7	****	****	.17	.07	28
Eufaula	73.7	93	20	51	7	3	265	.66	.29	17	Stigler	72.7	94	20	48	7	6	236	.85	.57	28
Haskell	****	***	***	***	***	****	****	****	****	***	Stuart	74.1	94	4	51	7	3	275	2.16	1.30	28
Hectorville	74.0	93	21	52	6	1	271	1.51	.85	27	Tahlequah	72.4	93	20	44	6	8	229	.41	.21	26
Holdenville	73.4	92	4	49	6	6	259	3.35	2.18	17	Webbers Falls	72.9	93	20	49	7	****	****	.30	.20	17
McAlester	73.3	92	4	48	7	4	252	1.39	.80	17	Westville	72.3	93	20	48	6	6	224	.10	.09	17
Okmulgee	72.1	93	4	46	7	7	220	2.35	1.14	27											
SOUTHWEST																					
Altus	73.6	97	14	51	6	4	263	2.48	.93	17	Hollis	73.2	99	21	51	6	6	253	4.02	1.22	25
Apache	72.7	95	14	48	6	9	238	5.03	1.66	27	Mangum	72.3	97	14	48	6	6	225	4.37	1.90	17
Fort Cobb	72.7	95	14	52	13	****	****	3.28	1.13	25	Medicine Park	73.4	95	14	57	7	7	258	7.22	2.44	27
Grandfield	75.5	101	14	55	7	3	317	9.87	4.83	26	Tipton	74.7	101	14	50	6	3	293	4.45	1.66	17
Hinton	72.1	95	14	48	6	12	224	2.95	1.50	26	Walters	74.5	97	14	53	7	2	288	5.87	1.68	26
Hobart	73.8	99	14	51	6	7	271	3.36	1.19	17											
SOUTH CENTRAL																					
Ada	73.8	94	17	48	6	5	271	2.92	1.18	28	Lane	74.1	94	20	47	7	1	274	.05	.05	28
Ardmore	74.8	94	19	52	7	2	296	1.28	.88	28	Madill	74.8	94	20	48	7	1	294	.18	.08	26
Burneyville	74.6	97	19	48	7	1	289	.72	.41	29	Newport	75.0	96	19	53	7	2	301	2.06	1.56	28
Byars	74.1	94	16	51	6	5	279	2.45	1.03	26	Pauls Valley	74.1	94	14	52	7	3	277	3.52	1.35	26
Centrahoma	73.8	94	4	47	7	1	264	2.77	1.97	17	Ringling	74.9	96	19	51	13	3	299	4.12	2.65	28
Durant	75.3	94	20	51	7	0	309	.05	.04	23	Sulphur	73.4	93	19	48	7	4	257	3.52	1.99	28
Fittstown	73.0	93	19	49	13	4	244	2.09	1.05	28	Tishomingo	74.0	94	20	48	7	2	272	.96	.42	27
Ketchum Ranch	74.4	96	14	52	13	3	284	5.80	2.96	26	Waurika	75.0	98	14	49	7	2	302	2.84	1.71	26
SOUTHEAST																					
Antlers	72.9	92	20	46	7	5	243	.49	.38	28	Mt Herman	73.9	92	23	50	7	2	271	.13	.12	3
Broken Bow	73.9	94	23	48	7	1	267	.47	.45	27	Talihina	73.4	95	20	44	7	8	261	1.07	.69	27
Clayton	73.8	94	20	47	7	3	267	.09	.07	28	Valliant	74.5	94	20	47	7	2	287	.14	.06	27
Cloudy	73.8	94	23	46	7	3	266	.00	.00	1	Wilburton	73.6	93	23	48	7	****	****	2.51	2.48	28
Hugo	74.9	93	20	51	7	0	297	.00	.00	1	Wister	72.2	96	20	45	7	7	222	.05	.04	28
Idabel	74.9	93	20	49	7	0	296	.01	.01	24											

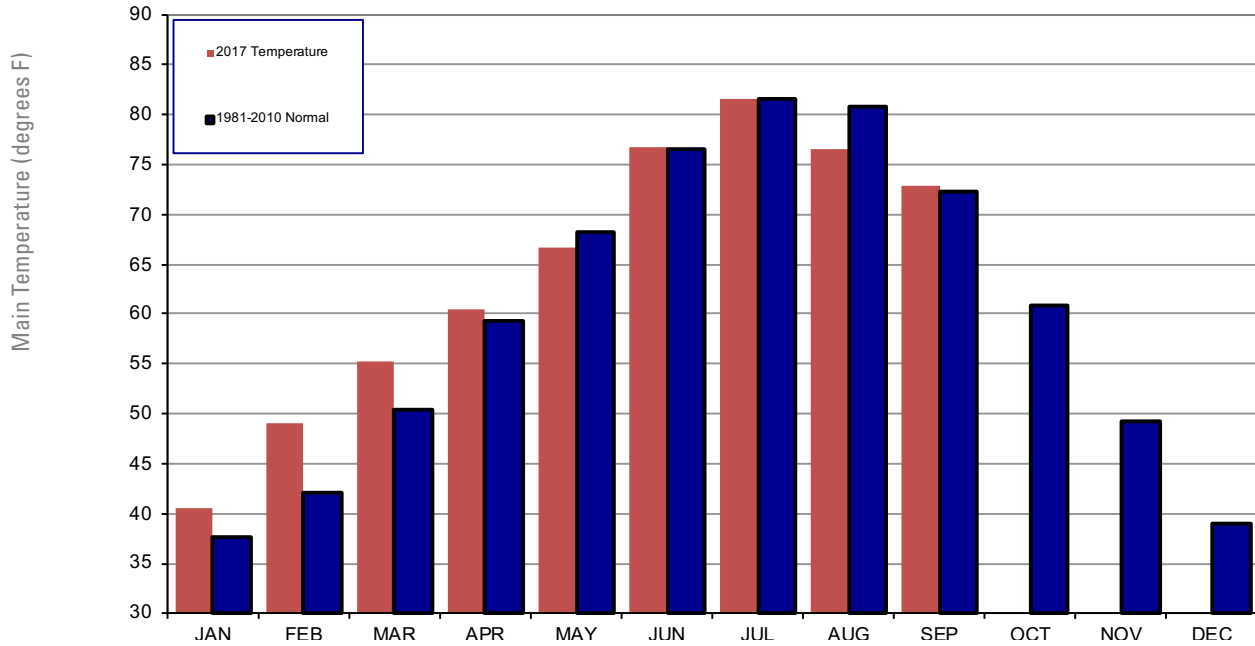
2017 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



September 2017 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Sep-16 (inches)
Panhandle	3.34	1.52	16th Wettest	5.03 (1925)	0.04 (1956)	1.32
North Central	2.59	-0.25	61st Wettest	7.43 (1923)	0.07 (2000)	4.22
Northeast	2.06	-2.44	25th Driest	12.12 (1986)	0.29 (1948)	3.45
West Central	3.01	0.26	44th Wettest	8.68 (1923)	0.06 (1956)	4.90
Central	3.45	-0.41	51st Wettest	9.81 (1945)	0.21 (1956)	3.65
East Central	1.12	-3.55	9th Driest	10.16 (1993)	0.24 (1948)	2.83
Southwest	4.81	1.83	23rd Wettest	8.48 (1936)	0.04 (1939)	4.66
South Central	2.19	-1.74	44th Driest	9.69 (1936)	0.13 (1956)	4.21
Southeast	0.45	-3.82	1st Driest	11.97 (1974)	0.57 (1931)	2.71
Statewide	2.60	-0.93	50th Driest	7.77 (1945)	0.25 (1956)	3.53

2017 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



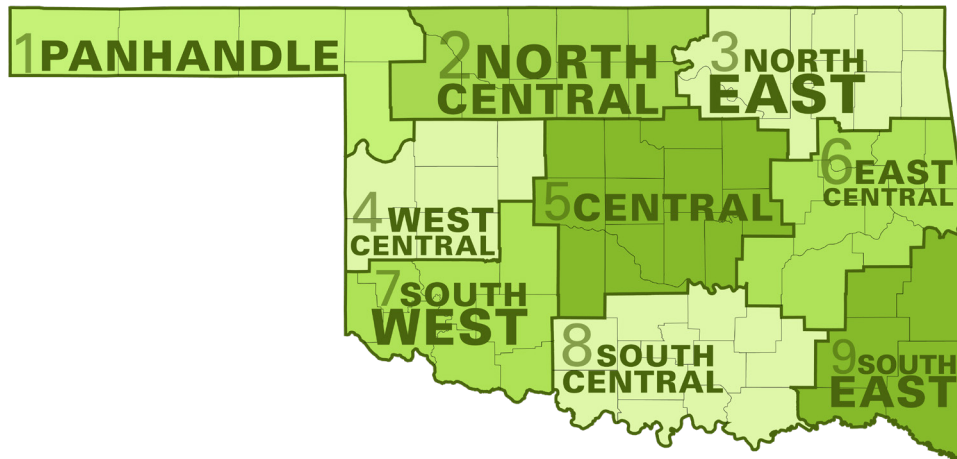
September 2017 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Sep-16 (F)
Panhandle	70.2	0.8	54th Warmest	76.9 (1931)	62.3 (1974)	71.8
North Central	73.4	1.5	45th Warmest	80.6 (1931)	63.6 (1974)	74.4
Northeast	72.8	1.2	61st Warmest	79.8 (1939)	63.9 (1974)	74.7
West Central	72.1	0.1	55th Coolest	80.2 (1931)	64.5 (1974)	74.3
Central	73.5	0.7	54th Coolest	81.7 (1931)	64.9 (1974)	76.0
East Central	72.6	0.0	43rd Coolest	81.8 (1939)	65.1 (1974)	76.2
Southwest	73.3	-0.6	41st Coolest	81.6 (1931)	66.2 (1974)	76.2
South Central	74.3	0.2	45th Coolest	81.8 (1939)	66.6 (1974)	77.0
Southeast	73.6	0.9	61st Coolest	81.0 (1939)	65.8 (1974)	76.2
Statewide	72.9	0.6	55th Coolest	80.1 (1931)	64.7 (1974)	75.2

MESONET EXTREMES FOR SEPTEMBER 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	101	4th	Buffalo	43	6th	Buffalo	5.23	Goodwell	2.25	23rd	Goodwell
North Central	101	14th	Freedom	43	6th	Seiling	4.3	Blackwell	2.34	25th	May Ranch
Northeast	97	4th	Burbank	43	6th	Pryor	4.34	Pawnee	2.27	26th	Pawnee
West Central	97	14th	Weatherford	42	6th	Camargo	4.2	Cheyenne	2.79	25th	Erick
Central	98	19th	Marshall	42	6th	Oilton	5.99	Chickasha	2.79	26th	El Reno
East Central	95	20th	Sallisaw	44	6th	Cookson	3.35	Holdenville	2.18	17th	Holdenville
Southwest	101	14th	Grandfield	48	6th	Apache	9.87	Grandfield	4.83	26th	Grandfield
South Central	98	14th	Waurika	47	7th	Lane	5.8	Ketchum Ranch	2.96	26th	Ketchum Ranch
Southeast	96	20th	Wister	44	7th	Talihina	2.51	Wilburton	2.48	28th	Wilburton
Statewide	101	14th	Grandfield	42	6th	Camargo	9.87	Grandfield	4.83	26th	Grandfield

Oklahoma Climate Divisions

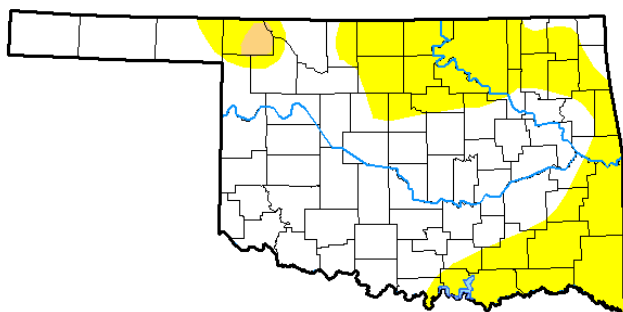


U.S. Drought Monitor Oklahoma

September 26, 2017

(Released Thursday, Sep. 28, 2017)

Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	64.46	35.54	0.77	0.00	0.00	0.00
Last Week 09-19-2017	71.28	28.72	2.04	0.00	0.00	0.00
3 Months Ago 06-27-2017	30.33	69.67	12.25	0.00	0.00	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 09-27-2016	57.82	42.18	19.04	3.05	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:

Brad Rippey
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:
<http://climate.mesonet.org> or <http://climate.ok.gov/>



Oklahoma Climatological Survey is the State Climate Office for Oklahoma

Dr. Kevin Kloesel Director
Dr. Chris Fiebrich Associate Director

EDITOR

Gary D. McManus State Climatologist

DESIGN

Ada Hoang Creative Director

For more information, contact:
Oklahoma Climatological Survey
The University of Oklahoma
120 David L. Boren Blvd., Suite 2900
Norman, OK 73072-7305

TEL: 405-325-2541

FAX: 405-325-7282

E-MAIL: ocs@ou.edu

WEBSITE: <http://climate.ok.gov>