

February rain records were shattered as a series of storm systems during the month’s final week brought snow, sleet and heavy rains to Oklahoma. The unsettled weather dumped a season’s worth of moisture over the southeastern half of the state and provided a brief brush with wintry weather. Kids across the state finally enjoyed a snow day or two as slippery travel shut down schools. The Oklahoma Mesonet site at Broken Bow led the state with an astounding 17.65 inches of rainfall, the highest total ever recorded in Oklahoma during February. At nearly 14 inches above normal, the total shattered the previous February record of 13.21 inches set by Tuskahoma in February 1945. The Mesonet sites at Idabel, Mt. Herman, and Valliant each had at least 15 inches, also besting the previous state record. At least a dozen locations saw their February rain records fall. According to preliminary data from the Oklahoma Mesonet, altogether the statewide average finished at 4.33 inches to rank as the second wettest February on record, 2.50 inches above normal. Those records date back to 1895.

February 2018 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	84°F	Several	14, 15
Low Temperature	-1°F	Camargo	12
High Precipitation	17.65 in.	Broken Bow	--
Low Precipitation	0.02 in.	Kenton	--

While the southeast dealt with record wetness and flooding, the dry streak in the northwest that dated back to early October continued unabated, creating a stark contrast between the “haves” to the southeast and the “have-nots” in the northwest. The southeast corner experienced its wettest February on record with an average total of 12.82 inches, 9.45 inches above normal. In contrast, the Panhandle was more than a half-inch below normal for their eighth driest February on record. Thirty of the Mesonet’s 120 sites recorded an inch of rain or less, with six of those receiving less than a tenth of an inch. On the other side of the scale, 50 sites recorded more than 5 inches with 10 of those receiving more than 10 inches. The climatological winter (December-February) displayed similar disparate statistics, again owed largely to the final week of February. The Panhandle region

suffered through its driest winter on record with an average of 0.12 inches, 1.79 inches below normal. The southeast’s average of 18.32 inches was 7.84 inches above normal and ranked as their third wettest on record. The statewide average finished at 5.78 inches, 0.33 inches above normal to rank as the 35th wettest winter on record.

February temperatures came in cooler than normal. The statewide average was 40.8 degrees, 1.3 degrees below normal and ranked as the 56th coolest February on record. Several sites shared the month’s top temperature reading of 84 degrees on Feb. 14 and 15. Camargo recorded the lowest temperature of minus 1 degree on Feb. 12. The winter finished a tad below normal at 39.1 degrees, the 56th coolest on record.

February 2018 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2018)
Month (February)	40.8°F	-1.3°F	56th Coolest
Season-to-Date (Dec-Feb)	39.1°F	-0.4°F	56th Coolest
Year-to-Date (Jan-Feb)	38.4°F	-1.3°F	54th Coolest

Precipitation

	Total	Depart.	Rank (1895-2018)
Month (February)	4.33 in.	2.50 in.	2nd Wettest
Season-to-Date (Dec-Feb)	5.78 in.	0.33 in.	35th Wettest
Year-to-Date (Jan-Feb)	4.82 in.	1.43 in.	16th Wettest

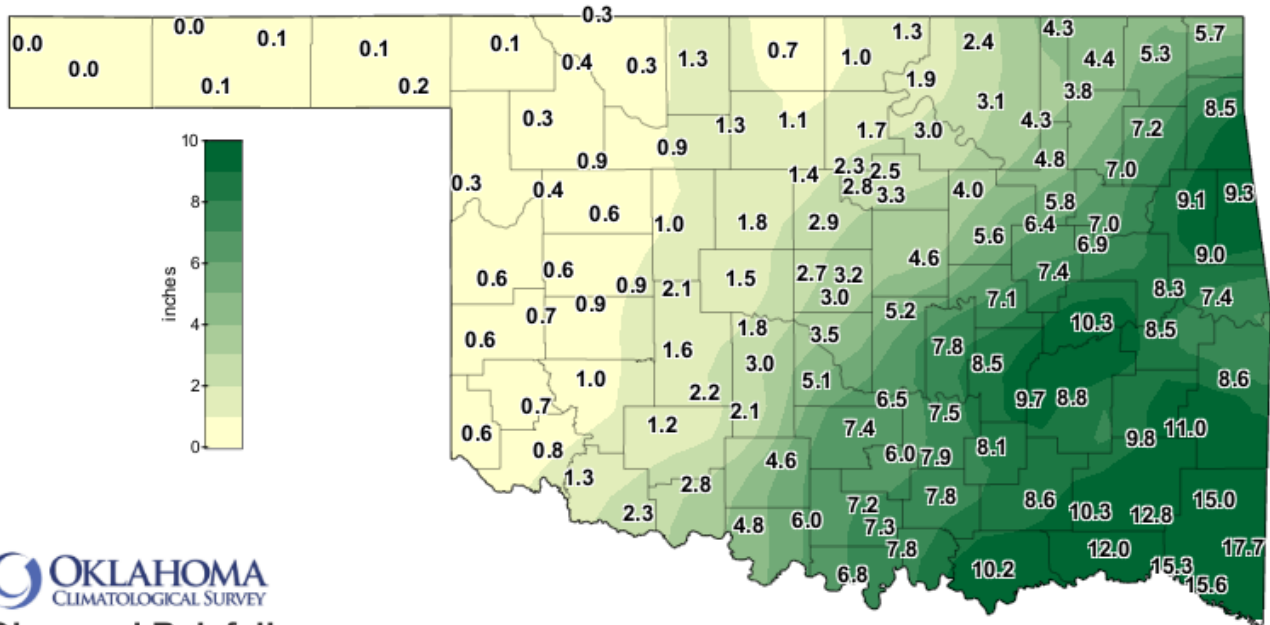
Depart. = departure from 30-year normal

The late-month bounty dramatically improved the drought situation across much of the state. According to the latest U.S. Drought Monitor report, which considered precipitation through Feb. 27, 66 percent of the state remains in some form of drought. That’s a reduction of 34 percent from the previous week. Nearly 44 percent of that drought is still considered “severe” or “extreme,” covering most of western Oklahoma

into the Panhandle. The Drought Monitor's intensity scale slides from moderate-severe-extreme-exceptional, with exceptional being the worst classification.

The outlooks for March from the Climate Prediction Center (CPC) call for increased odds of above normal temperatures across all of Oklahoma and below normal precipitation across the western half of the state. Those odds are greatest across far western Oklahoma and the Panhandle. There are also increased odds of above normal precipitation across far southeastern Oklahoma. CPC's Monthly Drought Outlook for March therefore depicts drought either persisting or increasing across the western half and into the far northeastern corner of the state. Drought improvement or removal is likely across the remainder of Oklahoma.

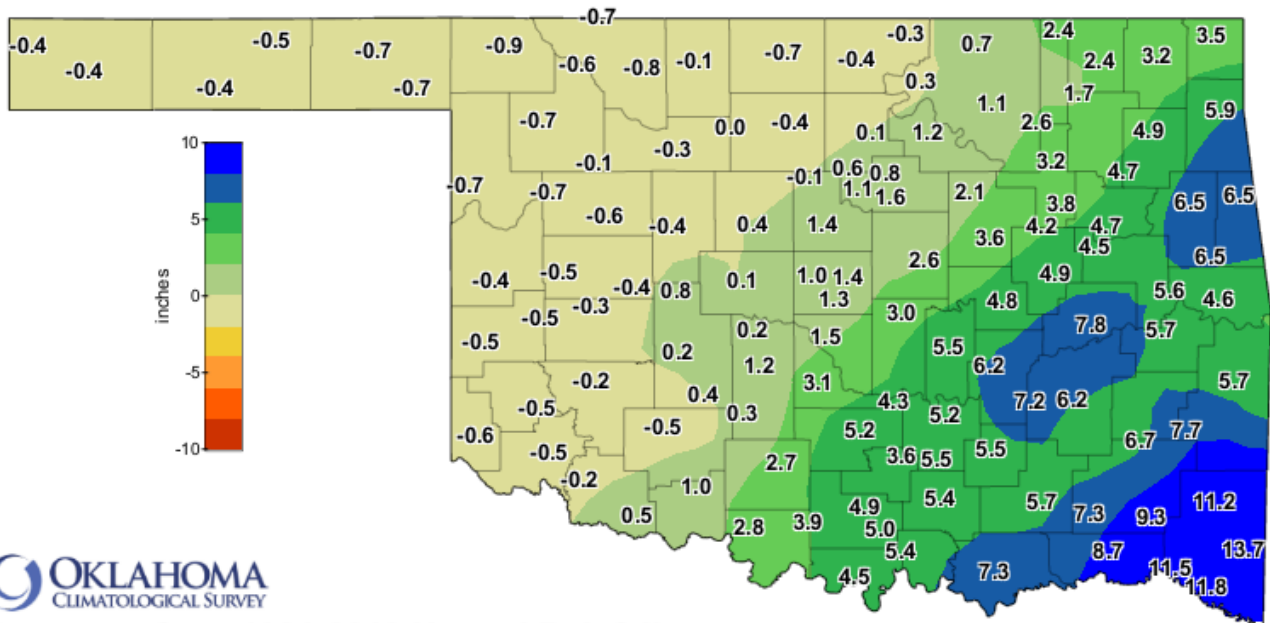
FEBRUARY 2018 OBSERVED PRECIPITATION



OKLAHOMA
CLIMATOLOGICAL SURVEY
Observed Rainfall
Current Month

Feb 01, 2018 through Feb 28, 2018
Created 12:01:28 PM March 1, 2018 UTC. © Copyright 2018

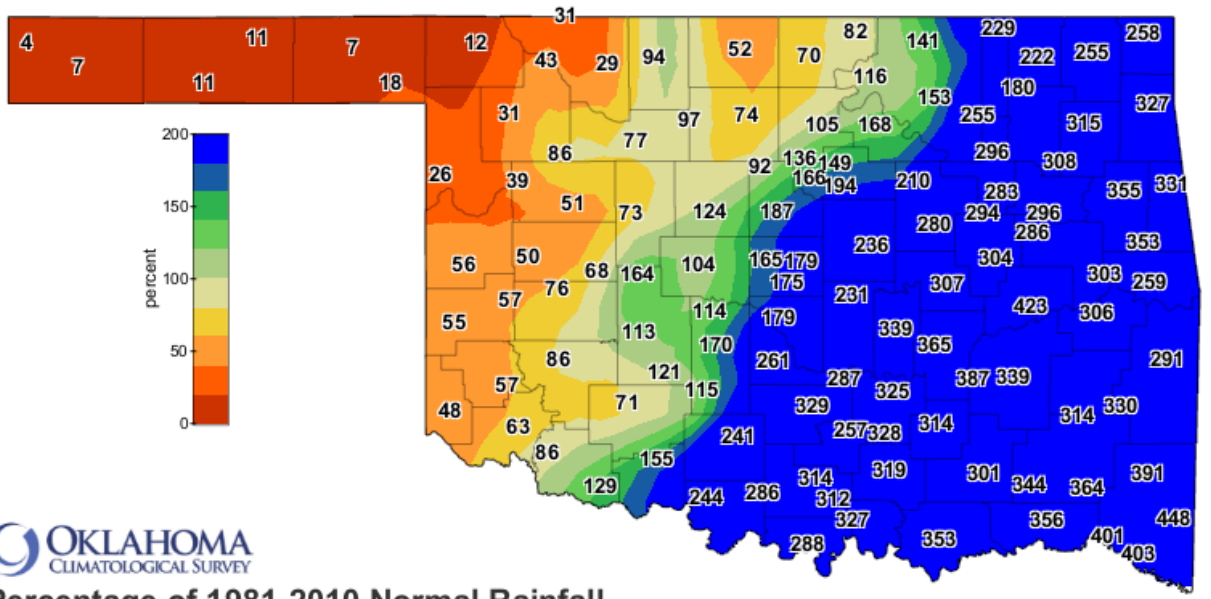
FEBRUARY 2018 DEPARTURE FROM NORMAL PRECIPITATION



OKLAHOMA
CLIMATOLOGICAL SURVEY
Departure from 1981-2010 Normal Rainfall
Current Month

Feb 01, 2018 through Feb 28, 2018
Created 12:01:29 PM March 1, 2018 UTC. © Copyright 2018

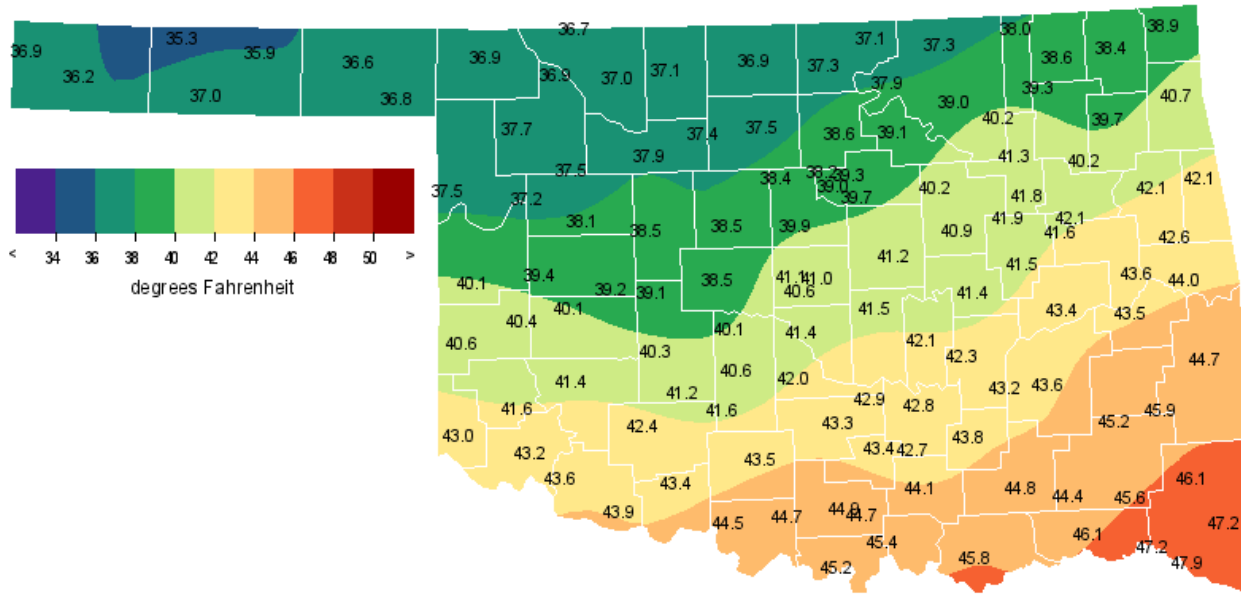
FEBRUARY 2018 PERCENT OF NORMAL PRECIPITATION



Percentage of 1981-2010 Normal Rainfall
Current Month

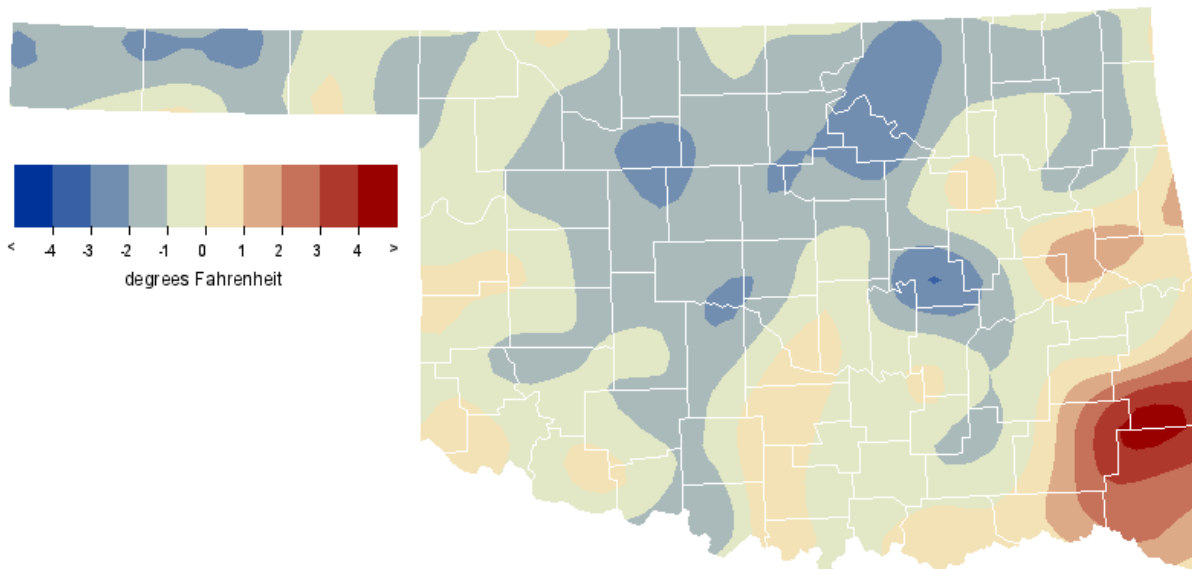
Feb 01, 2018 through Feb 28, 2018
Created 12:01:29 PM March 1, 2018 UTC. © Copyright 2018

FEBRUARY 2018 AVERAGE TEMPERATURE



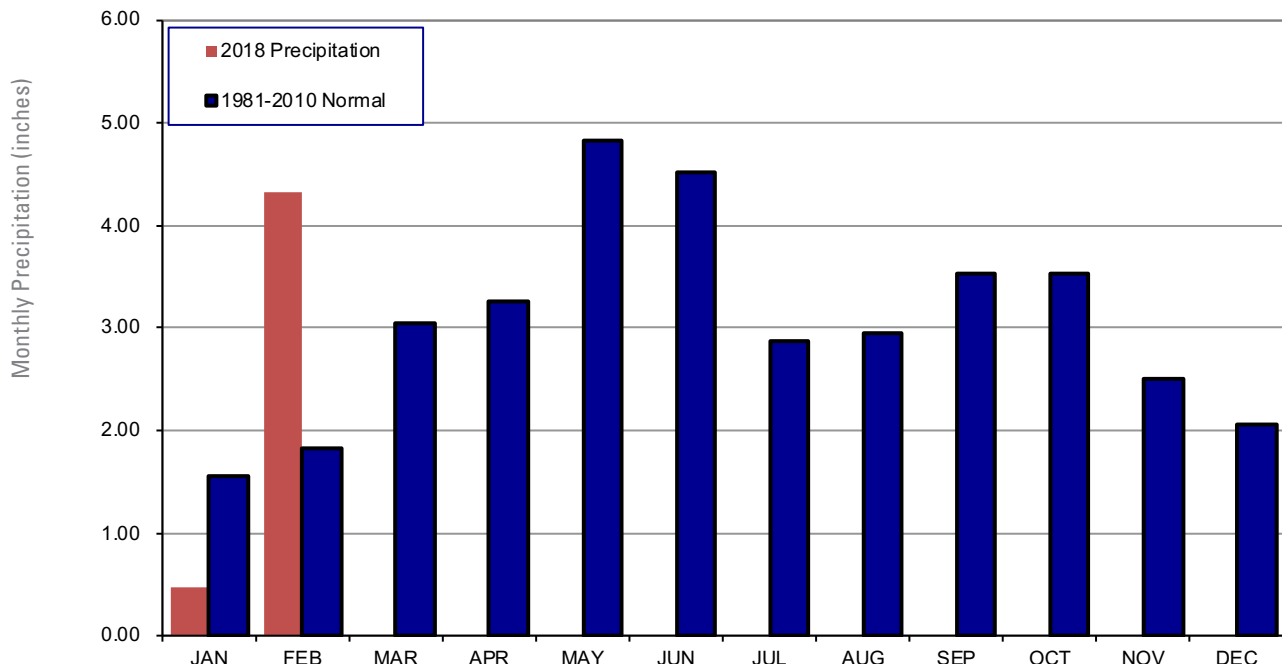
Feb 2018
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FEBRUARY 2018 DEPARTURE FROM NORMAL TEMPERATURE



Feb 2018
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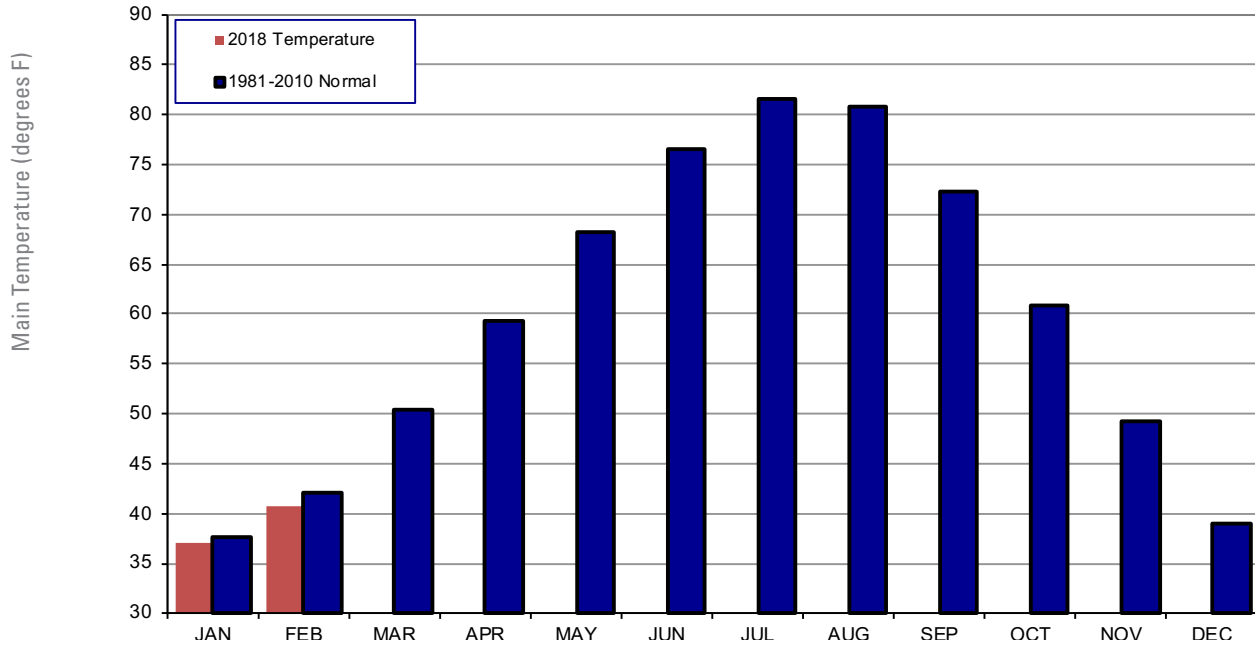
2018 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



February 2018 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Feb-17 (inches)
Panhandle	0.08	-0.55	15th Driest	2.95 (1911)	0.00 (1904)	0.17
North Central	0.89	-0.40	62nd Driest	3.97 (1911)	0.01 (1904)	1.35
Northeast	4.90	2.85	2nd Wettest	5.90 (1985)	0.10 (1963)	1.23
West Central	0.68	-0.42	56th Driest	4.04 (2013)	0.00 (1991)	1.63
Central	3.51	1.70	7th Wettest	4.91 (1938)	0.04 (1947)	2.71
East Central	8.43	5.85	2nd Wettest	8.92 (1938)	0.10 (1947)	2.53
Southwest	1.50	0.11	39th Wettest	3.68 (1997)	0.01 (1916)	2.81
South Central	7.15	4.76	2nd Wettest	7.48 (1938)	0.08 (1996)	3.10
Southeast	12.82	9.45	1st Wettest	9.53 (1945)	0.34 (1895)	3.00
Statewide	4.33	2.50	2nd Wettest	4.57 (1938)	0.18 (1996)	2.05

2018 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



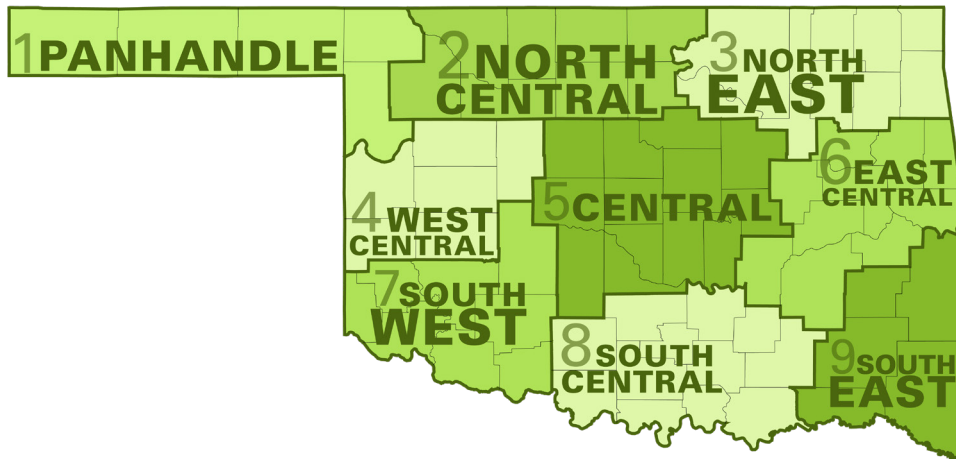
February 2018 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Feb-17 (F)
Panhandle	36.6	-1.8	51st Coolest	47.3 (1954)	23.6 (1899)	46.2
North Central	37.4	-2.2	50th Coolest	49.6 (1930)	25.3 (1978)	47.8
Northeast	39.5	-1.2	62nd Coolest	49.4 (1976)	25.4 (1905)	49.3
West Central	39.3	-1.8	51st Coolest	50.9 (1954)	26.2 (1905)	48.7
Central	40.3	-2.1	49th Coolest	51.5 (1954)	27.5 (1905)	51.3
East Central	42.7	-0.5	59th Warmest	52.5 (2017)	29.5 (1905)	52.5
Southwest	42.1	-1.5	55th Coolest	52.4 (1954)	28.0 (1905)	51.4
South Central	44.2	-1.1	59th Coolest	54.3 (1976)	30.3 (1899)	53.6
Southeast	46.0	1.3	42nd Warmest	53.3 (2017)	31.9 (1905)	53.3
Statewide	40.8	-1.3	56th Coolest	50.6 (1954)	27.6 (1905)	50.4

MESONET EXTREMES FOR FEBRUARY 2018

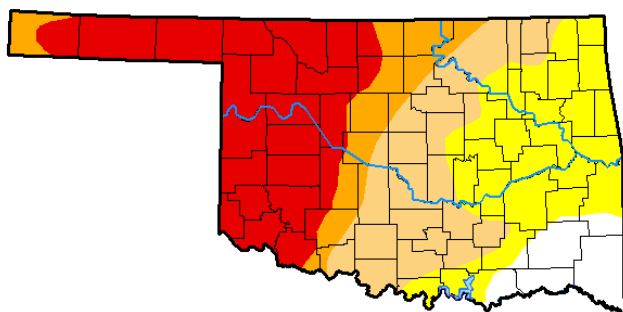
Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	83	14th	Buffalo	1	12th	Buffalo	0.25	Arnett	0.09	23rd	Arnett
North Central	84	14th	Freedom	1	12th	Seiling	1.71	Red Rock	0.71	24th	Cherokee
Northeast	82	15th	Pawnee	4	5th	Vinita	8.50	Jay	2.64	23rd	Porter
West Central	84	14th	Camargo	-1	12th	Camargo	1.00	Watonga	0.42	17th	Weatherford
Central	81	15th	Bristow	3	12th	El Reno	7.84	Bowlegs	2.33	23rd	Okemah
East Central	80	15th	Webbers Falls	8	12th	Okmulgee	10.27	Eufaula	3.61	23rd	Eufaula
Southwest	84	15th	Altus	2	12th	Mangum	2.80	Walters	0.94	23rd	Walters
South Central	83	15th	Waurika	10	12th	Pauls Valley	10.16	Durant	3.82	20th	Lane
Southeast	77	15th	Clayton	15	5th	Wister	17.65	Broken Bow	3.70	28th	Broken Bow
Statewide	84	14th	Freedom	-1	12th	Camargo	17.65	Broken Bow	3.82	20th	Lane

Oklahoma Climate Divisions



U.S. Drought Monitor Oklahoma

February 27, 2018
(Released Thursday, Mar. 1, 2018)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	7.72	92.28	66.20	43.87	32.91	0.00
Last Week 02-20-2018	0.00	100.00	99.92	88.91	37.80	0.00
3 Months Ago 11-28-2017	27.12	72.88	39.90	20.80	0.78	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 09-26-2017	64.46	35.54	0.77	0.00	0.00	0.00
One Year Ago 02-28-2017	12.64	87.36	73.14	28.77	0.18	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.

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National Drought Mitigation Center



<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/>



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