

The old adage “numbers never lie” is a good principle in theory, but often dangerous if used within the context of Oklahoma’s eccentric weather patterns. For example, the statewide average temperature and precipitation values for January ended very close to normal, but the journey to those numbers was anything but. The first half of the month was frigid and mostly dry, somewhat typical of a cold Oklahoma January. Around the 15th, however, the weather decided it was time for spring a couple of months early. The second half of the month brought a string of record-breaking temperatures, high fire danger and bursts of moisture. According to preliminary data from the Oklahoma Mesonet, the statewide average temperature was 37.9 degrees, just a couple of tenths of a degree above normal and the 51st warmest January since records began in 1895. But again, the journey to those numbers was the remarkable story. For example, the statewide average high temperature for the Jan. 1-14 period was 37.4 degrees, 11.1 degrees below normal while the second half enjoyed a statewide average high of 60 degrees, 10.1 degrees above normal. Oklahoma City broke daily maximum temperature records on four separate days, including three in a row from Jan. 26-28. During those periods of record warmth, wildfire danger rose to extreme levels with strong gusty winds and low humidity accompanying the warm weather. The highest January temperature recorded by the Mesonet was 84 degrees at Alva on January 27 and the lowest was minus 6 degrees at Boise City on the fourth.

### January 2015 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	84°F	Alva	27
Low Temperature	-6°F	Boise City	4
High Precipitation	4.82 in.	Broken Bow	--
Low Precipitation	0.55 in.	Beaver	--

The January statewide average precipitation total of 1.53 inches was equally unremarkable, just three-hundredths below normal to rank as the 48th wettest on record. One would be hard pressed to find a northeastern Oklahoman satisfied with their moisture totals for the month, however, since most of that region ended with a deficit of 1-2 inches. On the other hand, much of southern and western

Oklahoma had a surplus. And while that moisture was much needed, it must be remembered that January is normally Oklahoma’s driest month, so a surplus is not necessarily the bounty it appears to be at first glance. The Mesonet site at Broken Bow in far southeastern Oklahoma led the state with 4.82 inches. Hooker had the lowest January total at 0.55 inches. Some of January’s moisture fell as snow and ice. Boise City reported 14 inches of snow for January, about twice the next highest total of 7.5 inches at Sayre. Boise City has recorded a total of 20.7 inches for the season thus far. Guymon and Erick are the only other locations in double digits with 11.8 inches and 10.8 inches, respectively.

### January 2015 Statewide Statistics

#### Temperature

	Average	Depart.	Rank (1895-2015)
Month (January)	37.9°F	0.2°F	51st Warmest
Season-to-Date (Dec-Jan)	40.1°F	1.8°F	30th Warmest

#### Precipitation

	Total	Depart.	Rank (1895-2015)
Month (January)	1.53 in.	-0.03 in.	48th Wettest
Season-to-Date (Dec-Jan)	2.90 in.	-0.72 in.	57th Driest

Depart. = departure from 30-year normal

The surplus moisture across western and southern Oklahoma was not enough to make a big dent in the drought, now well into its fifth year. Some areas report a shortfall of more than 50 inches since the drought began back in the fall of 2010. At month’s end, more than 60 percent of the state was considered to be in drought by the U.S. Drought Monitor, with at least 45 percent in the severe category. The amount in extreme-exceptional drought held steady at about 23 percent. The Drought Monitor’s intensity scale slides from moderate-severe-extreme-exceptional, with exceptional being the worst classification.

## JANUARY 2015 DAILY SUMMARIES

**JANUARY 1-3:** 2015 was far from welcoming as Mother Nature greeted Oklahomans with chilly temperatures, freezing fog,

freezing rain, drizzle, and snow. The highest temperature in the state was a brisk 38 degrees in Broken Bow and Idabel on New Year's Day. Luckily, it climbed to 43 degrees in the southeast on the 2nd and 52 degrees in Burneyville by the 3rd. The coolest maximum temperatures were between 27 and 33 degrees. The highest minimum temperatures increased from 35 to 41 degrees during this three day, wintry stretch and the coolest minimums were between 4 and 12 degrees. South-central and southeast OK got hit with rain and freezing rain on the 1st while other areas got a mix of freezing drizzle and snow. Mixed precipitation in the southwest on the 2nd caused slick roads and bridges. Freezing rain and drizzle continued over most of the region with most areas receiving a few tenths of an inch. Despite a few lingering showers in the north, precipitation started to move eastward out of the state on the 3rd. Average wind speeds were mild, measuring less than 9mph on the 1st, 6mph on the 2nd, and 12mph on the 3rd. The highest wind gust reported at this time was 50mph in Hooker on Saturday.

**JANUARY 4-6:** Northerly winds helped keep temperatures cool on the 4th with highs ranging from 18 degrees in Goodwell to 43 degrees in Clayton and Wister. As winds shifted and became more southerly, maximum temperatures increased to ranges between 37 and 67 degrees on the 5th and 34 and 62 degrees on the 6th. Lows were between -6 (Boise City on the 4th) and 32 degrees (Medicine Park on the 6th). Light drizzle and flurries were observed in the northeast and southeast before moving out of the area on the 4th. Otherwise, skies were primarily clear the remainder of this period. By the 6th, however, another cold front started to move into the region. Maximum daily average wind speeds were 19mph on the 4th, 17mph on the 5th, and 14mph on the 6th.

**JANUARY 7-8:** A northerly shift in winds allowed for cold air to advance into the state. Highs were between 23 and 40 degrees on the 7th. As winds shifted more southerly on the 8th, maximum temperatures ranged from 32 to 63 degrees. Lows were between a frigid 3 and 18 degrees on Wednesday and between 1 and 21 degrees on Thursday. Jay and Burbank reported the lowest minimum temperature of 1 degree. Skies were mostly clear. Average wind speeds were 5-23mph on the 7th with a 55mph gust in Medicine Park. On the 8th, average wind speeds were 5-18mph.

**JANUARY 9-11:** Temperatures had a hiccup on the 9th where they quickly plummeted before starting on an upward trend. The highest temperatures increased from 42 degrees in Idabel to 60 degrees in Kenton. The coolest highs subtly climbed from 29 degrees to 34 degrees. The highest minimum temperatures increased from 25 to 33 degrees and the lowest minimums increased from 6 degrees in the northeast to 16 degrees in the panhandle. Light rain and freezing rain developed in southeast OK with patchy fog elsewhere on the 11th. The Mesonet measured as much

as .65 inches of liquid precipitation in Idabel and .64 inches in Broken Bow. Daily average wind speeds were less than 16mph on the 9th, less than 19mph on the 10th, and less than 13mph on the 11th.

**JANUARY 12-14:** As another cold front moved through the region, light drizzle fell over portions of central Oklahoma early on the 12th. Light snow developed on the 14th with accumulations around half an inch in the northwest. By the afternoon of the 14th, a wintry mix fell in northwest and north-central OK. Liquid precipitation amounts were less than one-tenth of an inch according to the Mesonet. Low maximum temperatures were in the upper 20s and low 30s. High maximum temperatures were in the mid-upper 40s. Minimum temperatures ranged from the teens to the 30s. Maximum daily average wind speeds weakened from 19mph on the 12th, to 12mph on the 13th, and 9mph on the 14th.

**JANUARY 15-19:** Maximum temperatures were well above normal during this period. Although the highest temperature was only 60 degrees in Mangum and Hollis on the 15th, the following four days saw highs in the upper 60s and 70s. The coolest maximum temperatures were in the 50s and 60s. Tulsa and McAlester both broke a daily maximum temperature record on the 18th at 72 degrees and 69 degrees, respectively. However, clear skies made for some cold nights. The coolest lows were between 14 (Kenton) and 25 degrees (northern OK) and the warmest lows were between 33 (Hugo) and 45 degrees (Westville). Maximum daily average wind speeds were between 11 and 18mph. The decent winds combined with a dry atmosphere and warm temperatures surely played a role in the wildfire that blazed through portions of Logan County on the 18th.

**JANUARY 20-22:** To counter the warm weather during the previous five days, Mother Nature set Oklahoma up with another cooling trend. The warmest temperatures dropped from 69 to 52 degrees and the coolest highs dropped from 41 to 28 degrees. Minimum temperatures ranged from 10 degrees in Kenton on the 22nd to 44 degrees in Medicine Park on the 20th. Rain and snow fell in western Oklahoma on the 21st and continued across southern Oklahoma on the 22nd. While the highest precipitation total was .45 inches in Hinton on the 21st, Elk City measured 8 inches of snow and Erick measured 7 inches of snow on the 22nd. That same day, Oklahoma City broke its daily maximum rainfall record with .47 inches. The most liquid precipitation measured by the Mesonet was .93 inches in Antlers. Average wind speeds were generally less than 14mph.

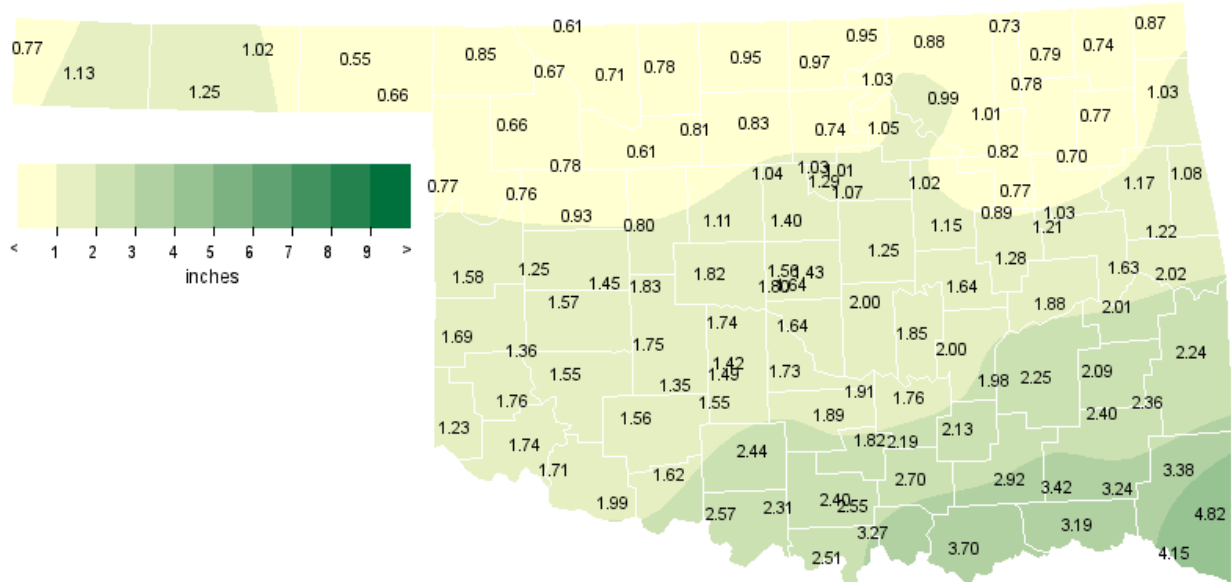
**JANUARY 23-25:** Despite a cold front on the 25th, the highest maximum temperatures climbed from the mid-50s to the 60s. The coolest highs increased from 37 degrees in Erick to 49 degrees in Westville. Minimum temperatures increased from a range of -3 (Kenton) to 36 degrees on the 23rd to

a range of 24 (Breckinridge) to 41 degrees on the 25th. Average wind speeds were less than 13mph, 14mph, and 21mph each consecutive day.

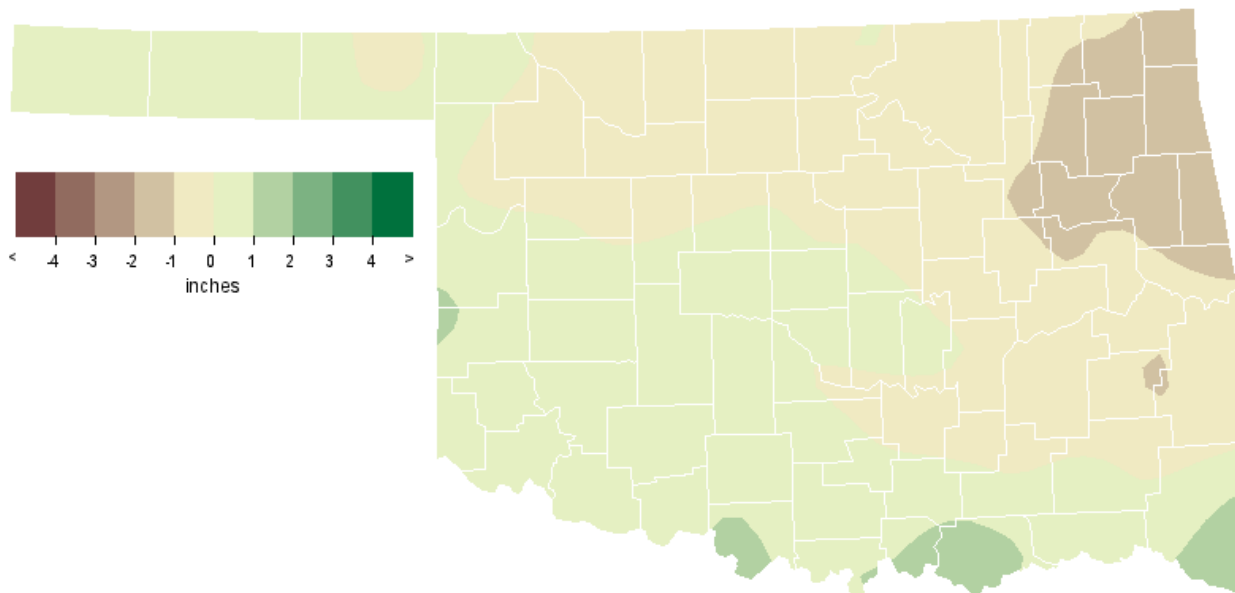
**JANUARY 26-28:** This three-day stretch was full of record-breaking temperatures, temperatures that were well above normal for January. Highs were generally between the 60s and 80s. The highest temperature in the state was Alva at 84 degrees (Jan. 27). Lows were between the 20s and 50s. Oklahoma City broke its daily maximum temperature record each day at 77, 78, and 79 degrees. The new record of 79 degrees on the 28th beat out a record that was set over 120 years ago in 1893! McAlester also broke its daily maximum temperature record three days in a row with 72, 76, and 79 degrees. Tulsa managed one record breaking maximum temperature day as well with 71 degrees on the 26th. Sticking with the theme of consistency, average wind speeds were less than 13mph each day.

**JANUARY 29-31:** With an attempt at getting back to near-normal temperatures, the month of January finished with a cooling trend. A cold front caused the highest maximum temperatures to decrease from 67 degrees in Talihina on the 29th to 55 degrees in Idabel on the 31st. Low maximums decreased from 49 degrees in Goodwell to 40 degrees in Cheyenne. The warmest minimums fluctuated in the upper 30s and low-mid 40s. The coolest minimums wavered from 25 degrees on the 29th, to 19 degrees on the 30th, and 33 degrees on the 31st. On the 30th, light showers moved into the northwest. By Saturday, rain pushed further into western Oklahoma and continued eastward. Rainfall was less than one-quarter of an inch on the 30th and generally less than one inch on the 31st. Ketchum Ranch measured the most amount of rainfall at 1.10 inches. Average wind speeds were less than 20mph, gusting at 53mph in Medicine Park on the 29th. Dying down a bit, average wind speeds were less than 13mph on the 30th, and less than 15mph on the 31st.

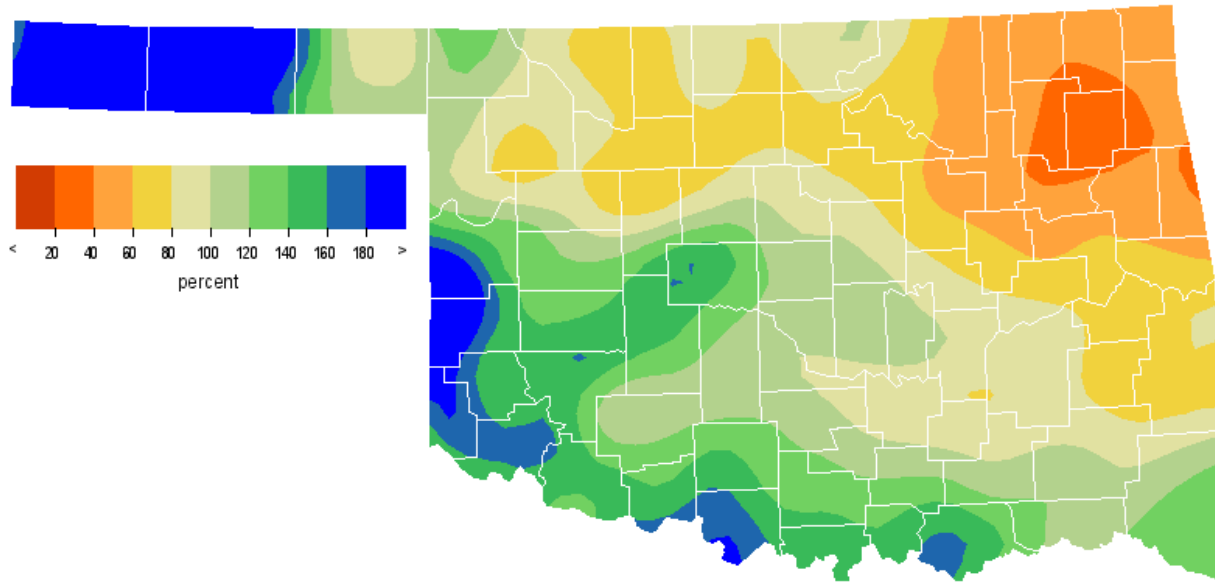
## JANUARY 2015 OBSERVED PRECIPITATION



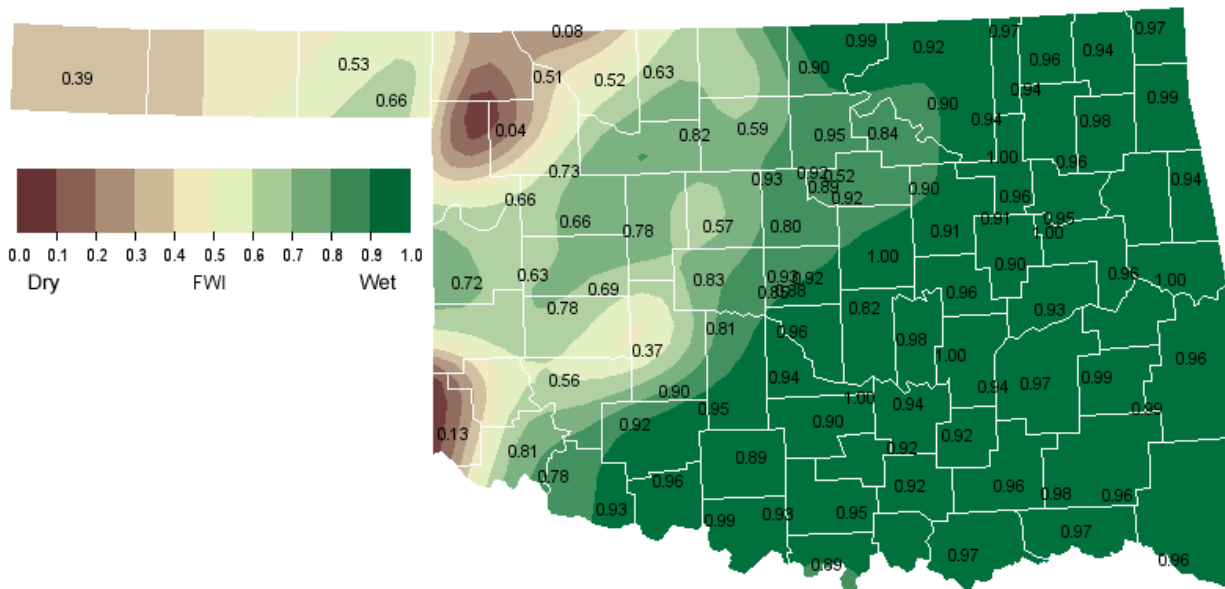
## JANUARY 2015 DEPARTURE FROM NORMAL PRECIPITATION



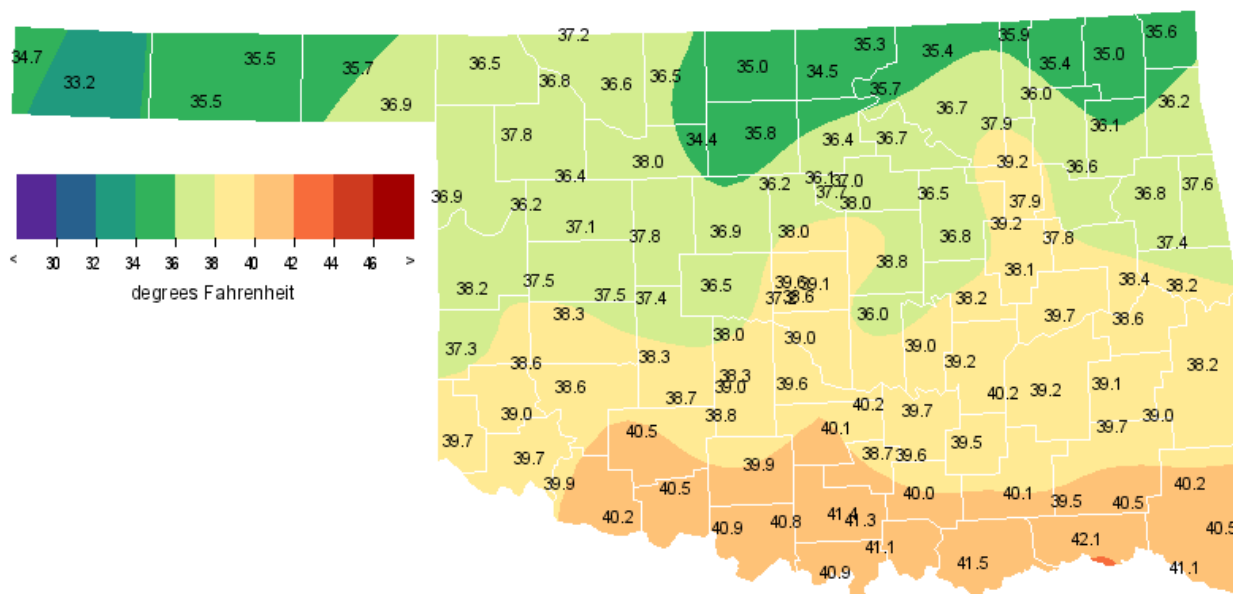
## JANUARY 2015 PERCENT OF NORMAL PRECIPITATION



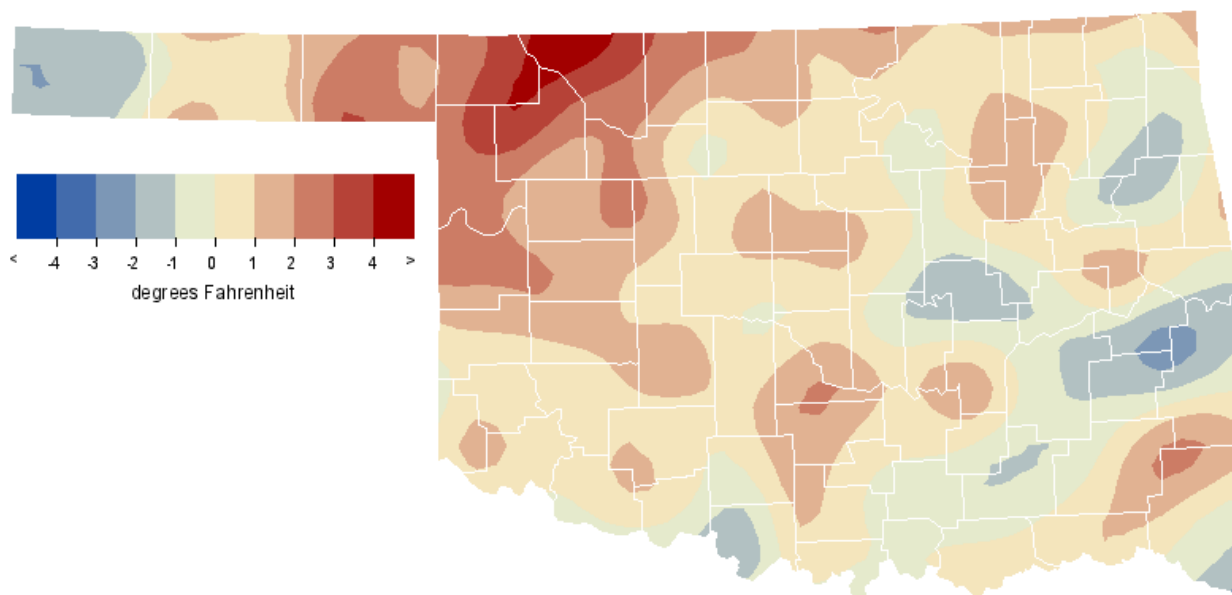
## JANUARY 2015 AVERAGE SOIL MOISTURE AT 25CM



## JANUARY 2015 AVERAGE TEMPERATURE

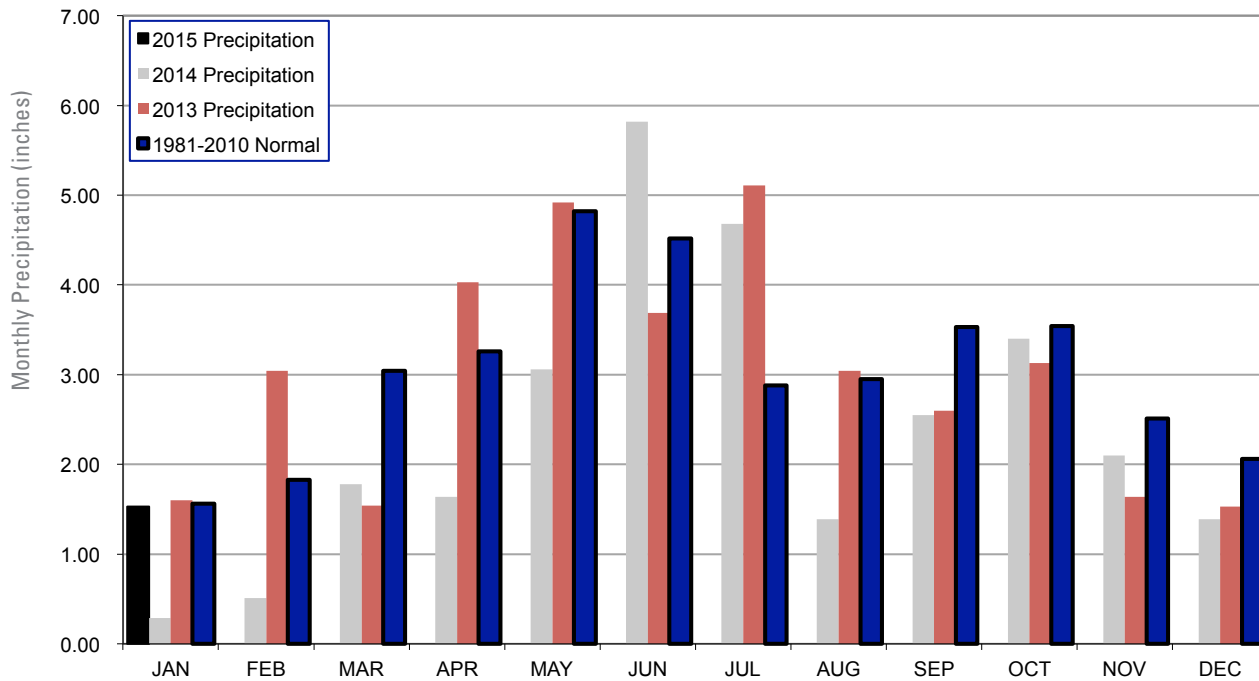


## JANUARY 2015 DEPARTURE FROM NORMAL TEMPERATURE





## 2013, 2014 AND 2015 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL

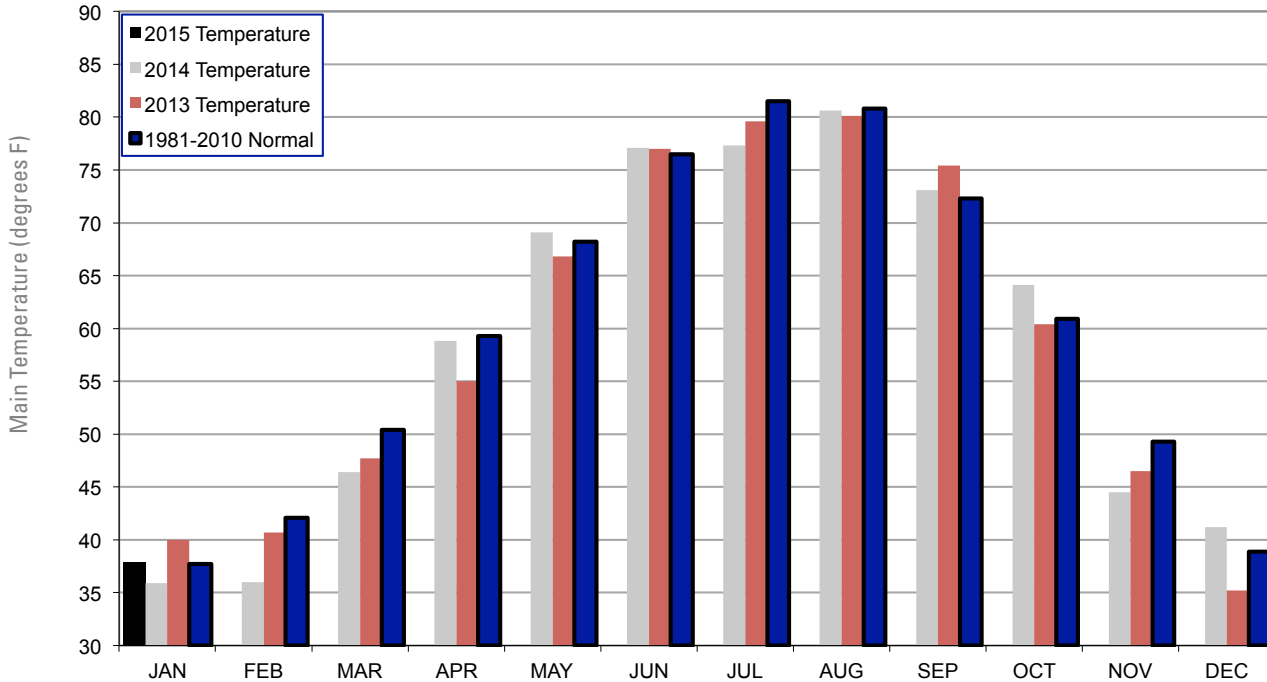


### January 2015 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Jan-14
Panhandle	0.87	0.33	21st Wettest	1.78 (2005)	0.00 (1923)	0.12
North Central	0.77	-0.20	56th Wettest	4.16 (1949)	0.00 (1986)	0.15
Northeast	0.87	-0.85	38th Driest	6.87 (1916)	0.01 (1986)	0.37
West Central	1.27	0.36	27th Wettest	3.74 (1949)	0.00 (1976)	0.05
Central	1.45	0.01	45th Wettest	5.58 (1949)	0.00 (1986)	0.14
East Central	1.59	-0.83	49th Driest	11.21 (1916)	0.04 (1986)	0.64
Southwest	1.64	0.52	26th Wettest	4.48 (1949)	0.00 (1912)	0.01
South Central	2.44	0.44	33rd Wettest	7.70 (1916)	0.03 (1986)	0.35
Southeast	3.13	0.02	46th Wettest	11.13 (1949)	0.20 (1943)	1.32
Statewide	1.53	-0.03	48th Wettest	5.35 (1949)	0.03 (1986)	0.33



## 2013, 2014 AND 2015 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



### December 2014 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Jan-14 (F)
Panhandle	35.6	0.7	41st Warmest	42.9 (2006)	19.7 (1940)	34.7
North Central	36.2	1.1	36th Warmest	45.0 (2006)	18.8 (1940)	34.2
Northeast	36.4	0.6	52nd Warmest	46.2 (2006)	20.6 (1940)	33.2
West Central	37.6	0.6	42nd Warmest	46.1 (2006)	21.3 (1930)	35.9
Central	37.9	0.0	54th Warmest	47.7 (2006)	22.8 (1930)	36.4
East Central	38.5	-0.1	58th Warmest	48.0 (1923)	24.8 (1918)	35.6
Southwest	39.3	-0.1	49th Warmest	48.1 (2006)	23.6 (1930)	38.4
South Central	40.4	-0.4	58th Coolest	49.7 (1923)	27.5 (1930)	38.5
Southeast	40.0	-0.4	60th Coolest	48.7 (1907)	27.7 (1918)	36.5
Statewide	37.9	0.2	51st Warmest	46.8 (2006)	23.7 (1940)	35.9

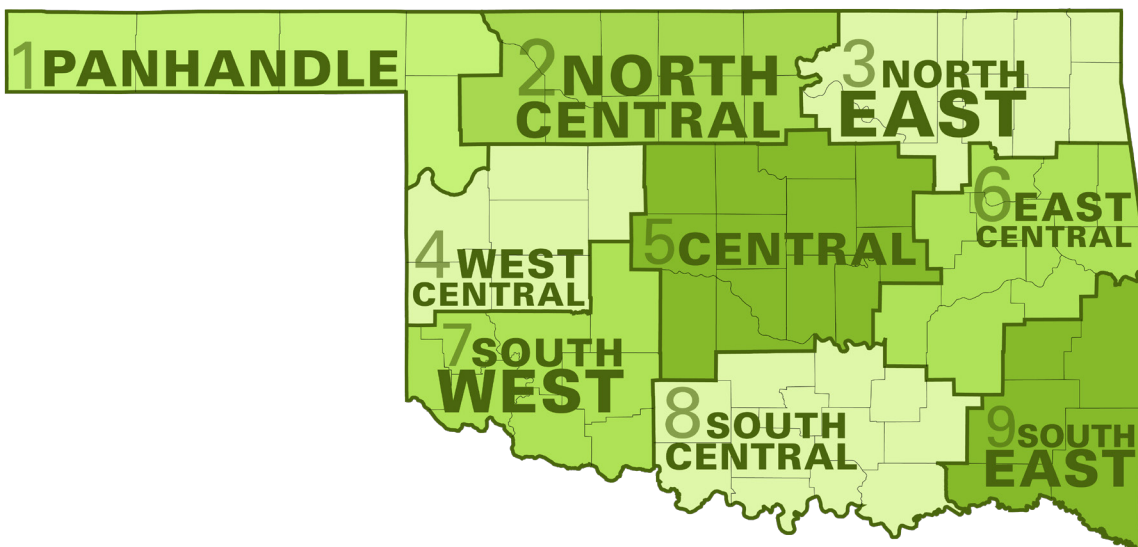
## RECORD EVENT REPORTS JANUARY 2015

Description	Day	Location	Record	Previous Record	Year
Daily maximum temperature	18	Tulsa	72	72	1951
Daily maximum temperature	18	McAlester	69	69	1996
Daily maximum rainfall	22	Oklahoma City	0.47	0.39	1920
Daily maximum temperature	26	Oklahoma City	77	71	1911, 1912, 1999
Daily maximum temperature	26	Tulsa	71	71	1911
Daily maximum temperature	26	McAlester	72	72	1994
Daily maximum temperature	27	Oklahoma City	78	72	1914
Daily maximum temperature	27	McAlester	76	76	1975
Daily maximum temperature	28	Oklahoma City	79	78	1893
Daily maximum temperature	28	McAlester	79	77	1970

## MESONET EXTREMES FOR JANUARY 2015

Climate Division	High Temp (F)			Low Temp (F)			High Monthly Rainfall (inches)		High Daily Rainfall (inches)		
	Day	Station	Day	Station	Day	Station	Station	Day	Station		
Panhandle	83	27th	Buffalo	-6	4th	Boise City	1.25	Goodwell	0.70	31st	Buffalo
North Central	84	27th	Alva	3	8th	Blackwell	0.97	Blackwell	0.85	31st	Medford
Northeast	82	28th	Pawnee	1	8th	Jay	1.05	Pawnee	0.74	31st	Burbank
West Central	81	27th	Camargo	7	8th	Camargo	1.69	Erick	0.62	31st	Erick
Central	81	28th	Stillwater	3	8th	Oilton	2.00	Shawnee	0.86	31st	Guthrie
East Central	79	28th	Okmulgee	3	8th	Cookson	2.25	McAlester	0.74	31st	Holdenville
Southwest	83	28th	Mangum	10	8th	Apache	1.99	Grandfield	0.89	2nd	Altus
South Central	82	28th	Newport	8	8th	Ada	3.70	Durant	1.10	31st	Ketchum Ranch
Southeast	80	28th	Antlers	7	8th	Wister	4.82	Broken Bow	1.82	2nd	Broken Bow
Statewide	84	27th	Alva	-6	4th	Boise City	4.82	Broken Bow	1.82	2nd	Broken Bow

### Oklahoma Climate Divisions



## 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.

**SEVERE WEATHER REPORTS:** Only the most significant events are listed. Tornadoes of F2 or greater strength (on the 0-5 Fujita scale), hail of two inches diameter or greater, and wind speeds of 70 miles per hour or above are listed. National Weather Service defines storms as severe when they produce a tornado, hail of three-quarters inch or greater, or wind speeds above 57 miles per hour (50 knots). For additional reports, contact the Oklahoma Climatological Survey, Storm Prediction Center, or your local National Weather Service forecast office.

**SOIL MOISTURE:** The soil moisture variable displayed is the Fractional Water Index (FWI), measured at a depth of 25 cm. This unitless value ranges from very dry soil having a value of 0, to saturated soils having a value of 1.

## 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 Climatic Data Center (more than about 4-5 months old):

<http://www4.ncdc.noaa.gov/cgi-win/wwwcgi.dll?wwEvent~Storms>

### SEASONAL OUTLOOKS

Climate Prediction Center:

[http://www.cpc.ncep.noaa.gov/products/OUTLOOKS\\_index.html](http://www.cpc.ncep.noaa.gov/products/OUTLOOKS_index.html)

### 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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