

# OKLAHOMA MONTHLY CLIMATE SUMMARY

## JANUARY 2006



January of 2006 will be long remembered as “the January that winter forgot.” The statewide-averaged temperature was an astounding 10 degrees above normal, easily the warmest January in the record books. Southeastern Oklahoma received over three inches of rainfall, on average, which helped quench the thirst of a region badly in need of precipitation. That amount ranks as only the 44th wettest on record for that corner of the state, a veritable downpour compared to the last few months. A pleasant wintry surprise showed up on the 9th in the form of a good old-fashioned snowstorm. Nearly a foot of snow fell in north central Oklahoma. A few severe thunderstorms accompanied the rain in the eastern portions of the state, with high winds and quarter-sized hail being the main threat. Despite any rainfall that did occur, the high winds, warm weather and low humidities combined to make Oklahoma a tinderbox.

### Precipitation

The precipitation amounts in southeastern Oklahoma dropped dramatically to the northwest, which did very little to forestall the drought in the rest of the state. The statewide-averaged precipitation was just under an inch, the 36th driest January on record. The southwest was the driest area of the state at nearly an inch below normal, ranking as their 15th driest January on record. The winter season thus far remains very dry with a statewide-average well over two inches below normal.

### Temperature

All of Oklahoma was at least 10 degrees above normal, save for the relatively rainy southeast and the Panhandle. Those two regions were still drastically above normal at 8.3 degrees and 9.1 degrees, respectively. Much of the state was actually more than 11 degrees above the established normal. That warmth counter-acted the cool weather of December to make the winter season thus far the 3rd warmest on record.

Description	Extreme	Station	Date
High Temperature	87°F	Altus, Camargo	Jan 3rd
Low Temperature	6°F	Kenton	Jan 17th
High Precipitation	4.04 in.	Broken Bow	
Low Precipitation	0.02 in.	Grandfield, Medicine Park, Tipton	

### January Daily Highlights

**January 1-3:** The year’s first day was unseasonably warm, which led to dangerous wildfire conditions. The warmth was accompanied by low humidity and winds gusting to 60 mph ahead of a cold front. Record high temperatures were set at McAlester, Oklahoma City and Tulsa. Low temperatures were incredibly in the 40s and 50s, very warm for early January. The weather cooled considerably the following day with lows in the 30s and 40s and highs in the 50s and 60s, but still above the seasonal normals. The winds calmed and the humidity increased, easing wildfire worries. Southerly winds kicked in again ahead of a weak cold front on the third, pumping up the strong southerly winds to gusts of over 40 mph. Record high temperatures occurred at Gage, Hobart and Lawton as temperatures rose into the 70s and 80s statewide. The month’s high temperature of 87 degrees was set on the 3rd at Altus and Camargo.

**January 4-8:** The 4th was dominated by high pressure which had built in after the frontal passage of the 3rd. Although high temperatures rose into the 50s and 60s, strong northwesterly winds made the day feel cool. The period remained pleasant throughout with added warmth in the last two days. Record high temperatures were set once again on the 7th and 8th with highs in the 70s and 80s.

**January 9-10 :** An upper-level storm approached from the west as a cold front dropped into the state from the north, bringing the state its first taste of winter weather since mid-December. The cold front dropped temperatures into more seasonable territory on the 9th, with highs in the 30s in the north. Most of the northwestern half of the state received at least some snow, but the heaviest band of 6-12 inches ran along Interstate 35 from Oklahoma City north to the Kansas border. Lamont led the state with 11 inches, while Braman had 9.5 inches. Another area of 3-4 inch snowfall occurred in west central Oklahoma. The front triggered severe storms in far eastern Oklahoma, with large hail being the main threat. Temperatures rose into the 50s in most areas on the 10th, except near the snow pack, where highs only reached the low 30s.

**January 11-15 :** The 11th started cold, with lows in the 20s, but temperatures dropped into the teens where there was snow cover. Southerly winds helped temperatures to steadily increase over the next couple of days, eventually returning to 70s for highs. The winds gusted to over 40 mph on the 12th, once again raising the fire danger to extreme levels. A weak cold front dropped high temperatures down 10-20 degrees and triggered more severe storms in the far eastern portions of the state. Quarter-sized hail and winds of up to 60 mph were reported with those storms. High pressure moved in behind the front, allowing temperatures to rise once again into the 70s by the 15th.

**January 16-21:** The 16th-21st was marked by a couple of weak cold front passages on the 16th and 19th. Still, temperatures during this period were well above normal, and usually accompanied by strong gusty winds, adding to the risk of wildfires. Moisture surged northward on the strong southerly winds, making for a muggy night.

**January 22-28:** An upper-level storm moved toward the Southern Plains on the 22nd, creating a large area of heavy rain in south central and southeastern Oklahoma, as well as a lighter rain shield in the west. The extreme southeast received the most beneficial rainfall with a general area of nearly two inches. Amounts tapered off quickly to the northwest. Another light band from west central up through north central parts of the state provided little more than a third of an inch in spots. High pressure quickly filled in following the storm's passage, providing a pleasant day with light winds and highs in the 50s. High pressure dominated for the next several days until another upper-level storm approached from the west on the 27th. That disturbance kicked the winds up from the south, allowing another moisture surge from the Gulf of Mexico. More rain fell overnight and into the 28th, spreading over the eastern two-thirds of the state. The Mesonet site at Broken Bow recorded over two inches, with other amounts in the area exceeding an inch.

**January 29-31 :** Light winds and clear skies greeted the state on the 29th before more clouds and strong winds returned that afternoon. The cloud cover kept temperatures in the 50s and 60s, but the gusty winds made it feel cool. The month's last day was much like its first, with strong winds, low humidity, and enough warmth to send the wildfire danger soaring.

<b>January 2006 Statewide Statistics</b>			
<b>Temperature</b>			
	<b>Average</b>	<b>Depart.</b>	<b>Rank (1892-2006)</b>
Month (Jan)	46.6°F	10.5°F	1st Warmest
Season-to-Date (Dec-Jan)	42.3°F	4.8°F	3rd Warmest
<b>Precipitation</b>			
	<b>Total</b>	<b>Depart.</b>	<b>Rank (1892-2006)</b>
Month (Jan)	0.91 in.	-0.54 in.	26th Driest
Season-to-Date (Dec-Jan)	1.15 in.	-2.32 in.	5th Driest
Depart. = Departure from 30-year normal			

## **January 2006 Severe Weather**

### **Significant Tornadoes (F2 or greater)**

No significant tornadoes reported in the state.

### **Hail (2 inches in diameter or greater)**

No hail greater than 2 inches in diameter reported in the state.

### **Wind Gusts (70 mph or greater)**

No wind gusts 70 mph or greater reported in the state.

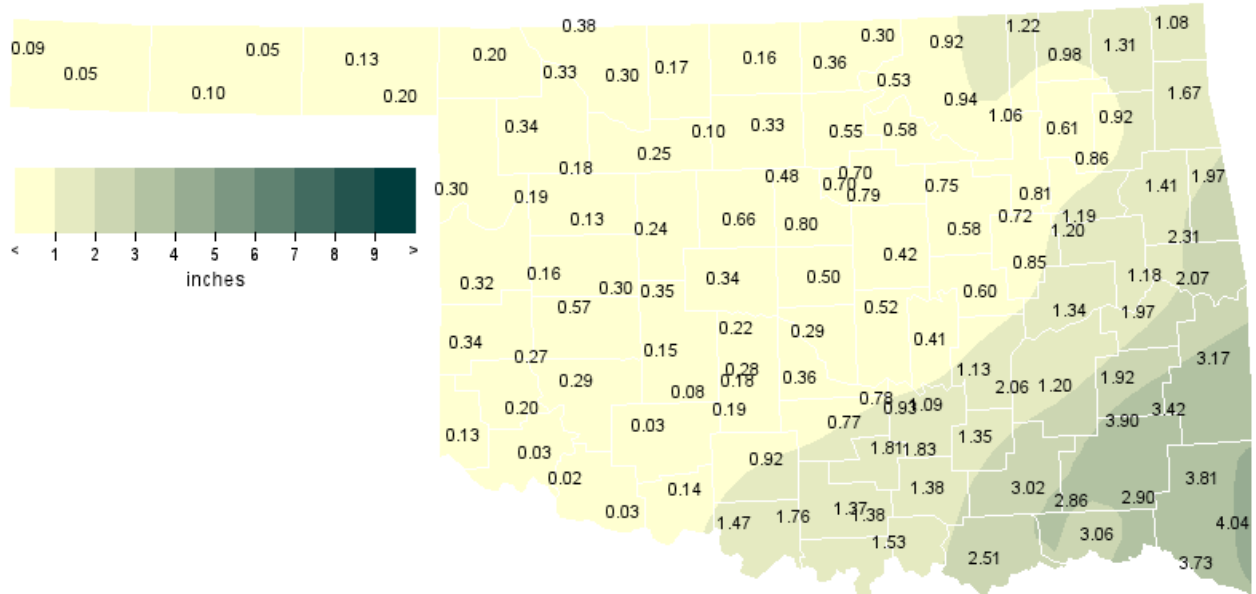
### **Flooding**

No flooding events reported in the state.

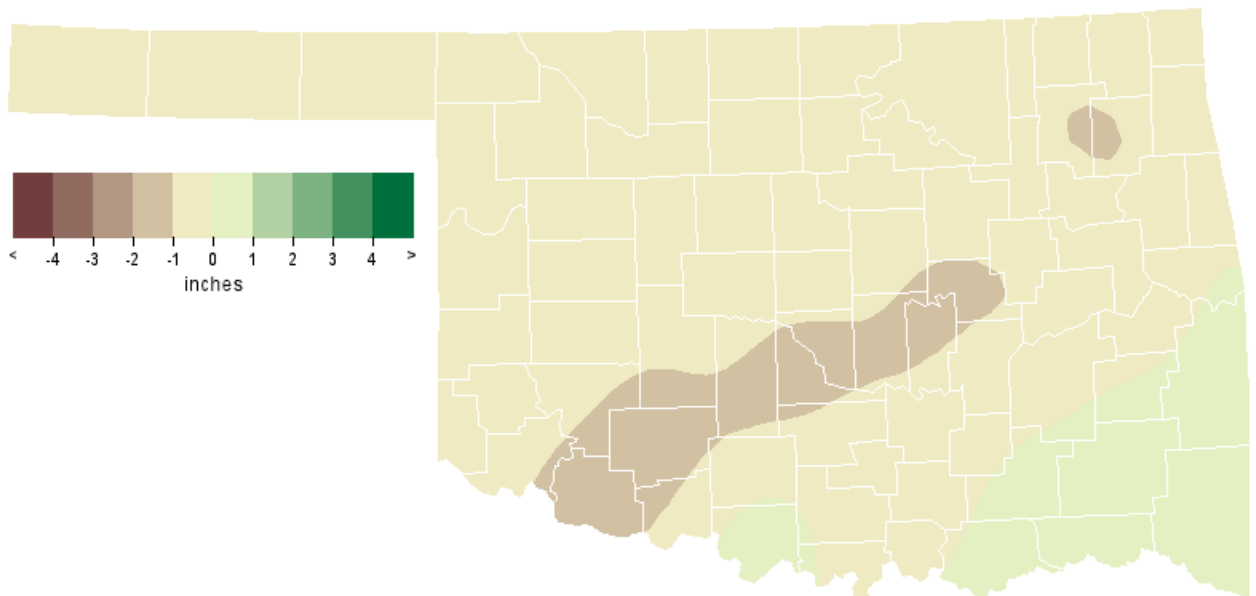
### **Record Events Report**

<b>Description</b>	<b>Day</b>	<b>Location</b>	<b>Record</b>	<b>Previous Record</b>	<b>Year</b>
High Temperature	1	McAlester	76	69	2005
High Temperature	1	Oklahoma City	77	74	1910
High Temperature	1	Tulsa	76	73	1910
High Temperature	7	Oklahoma City	76	73	1965
High Temperature	8	Oklahoma City	72	71	1923
High Temperature (tied)	13	Tulsa	74	74	2000
High Temperature	15	Tulsa	70	69	1914
High Temperature	16	McAlester	71	65	2000

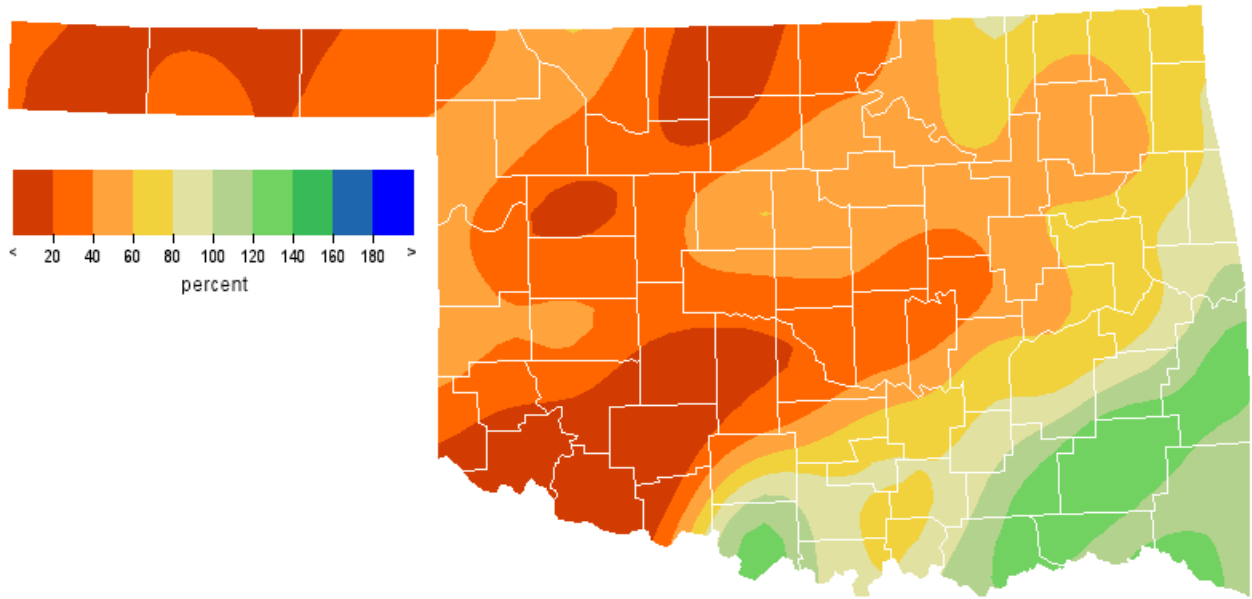
## January 2006 Observed Precipitation



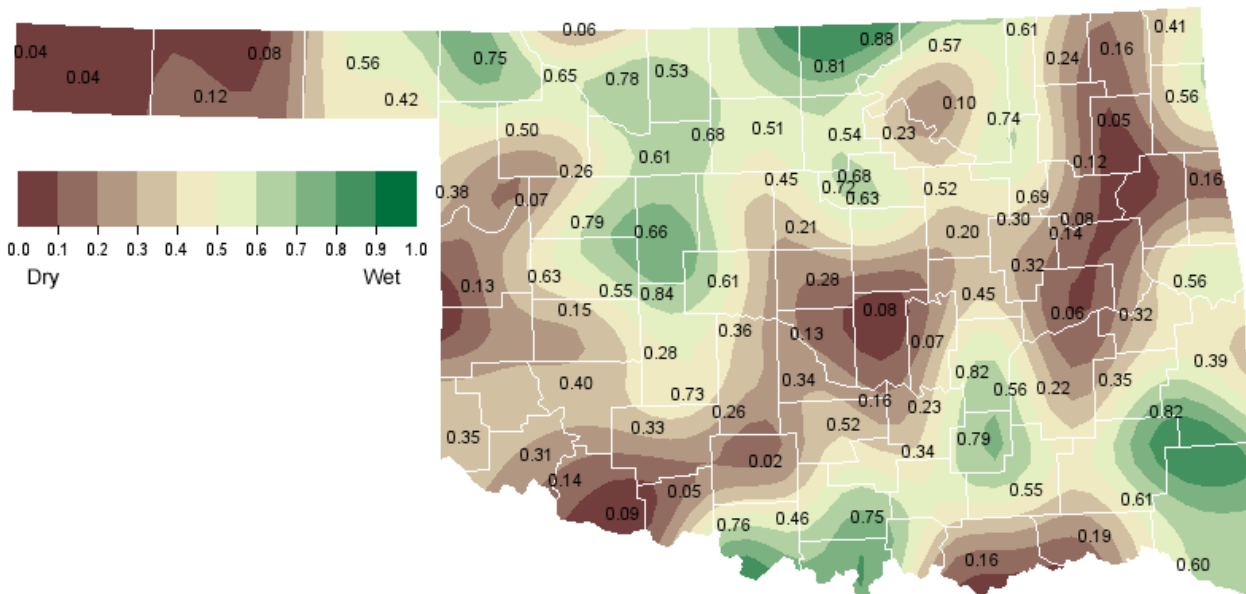
## January 2006 Departure from Normal Precipitation



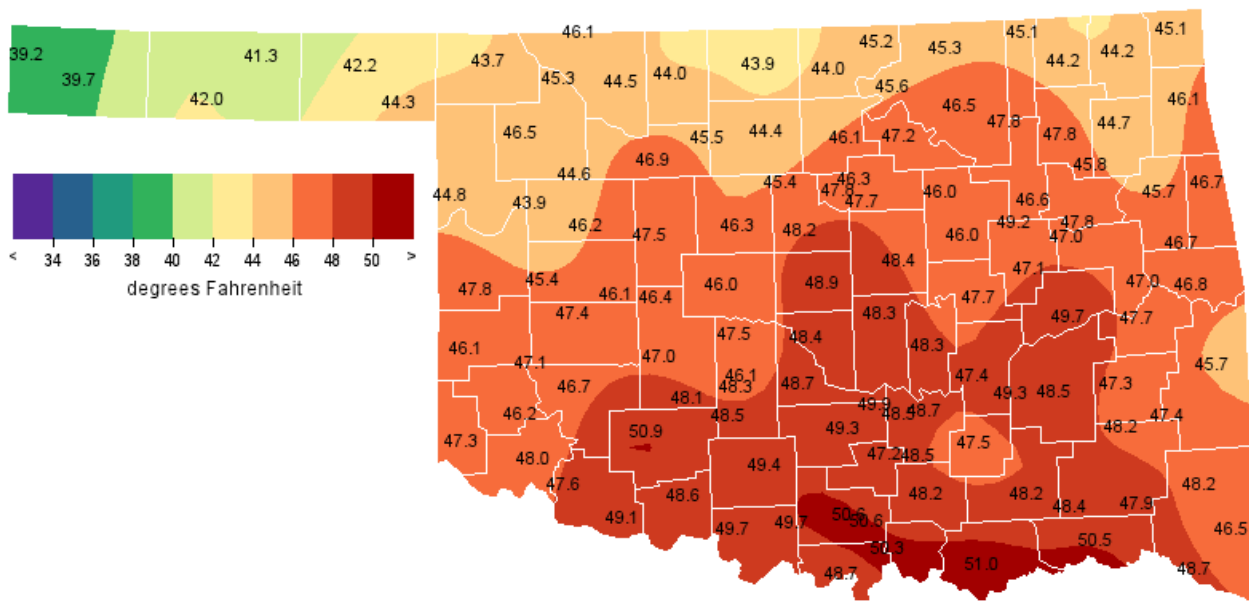
## January 2006 Percent of Normal Precipitation



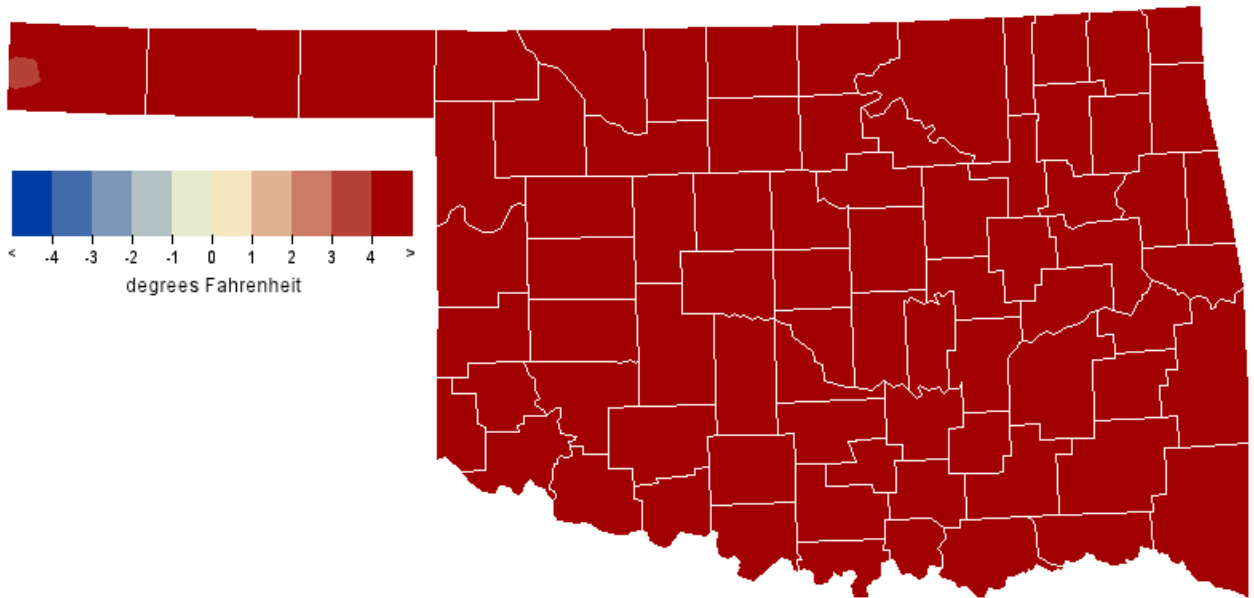
## January 2006 Average Soil Moisture at 25cm



**January 2006 Average Temperature**



**January 2006 Departure from Normal Temperature**

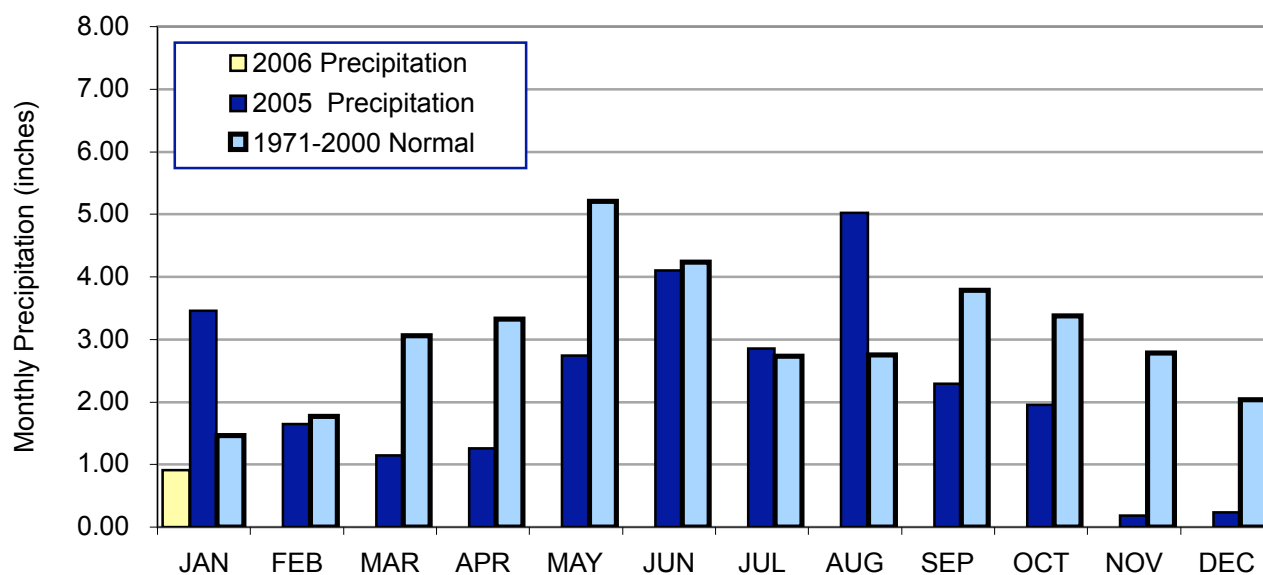




## January 2006 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Jan-05
Panhandle	0.14	-0.38	20th Driest	1.64 (1939)	0.01 (1904)	1.39
North Central	0.29	-0.64	25th Driest	4.43 (1949)	0.00 (1912)	3.12
Northeast	0.98	-0.59	34th Driest	6.01 (1949)	0.01 (1986)	4.06
West Central	0.28	-0.60	30th Driest	4.08 (1949)	0.00 (1912)	2.56
Central	0.49	-0.88	27th Driest	6.18 (1949)	0.00 (1912)	2.79
East Central	1.49	-0.64	45th Driest	7.99 (1932)	0.04 (1986)	5.95
Southwest	0.13	-0.93	15th Driest	4.89 (1949)	0.00 (1902)	1.99
South Central	1.49	-0.41	50th Driest	6.85 (1932)	0.00 (1909)	3.99
Southeast	3.28	0.47	44th Wettest	11.08 (1932)	0.11 (2003)	5.88
Statewide	0.91	-0.54	36th Driest	5.23 (1949)	0.04 (1986)	3.47

## 2005 and 2006 Statewide Precipitation Monthly Totals vs. Normal

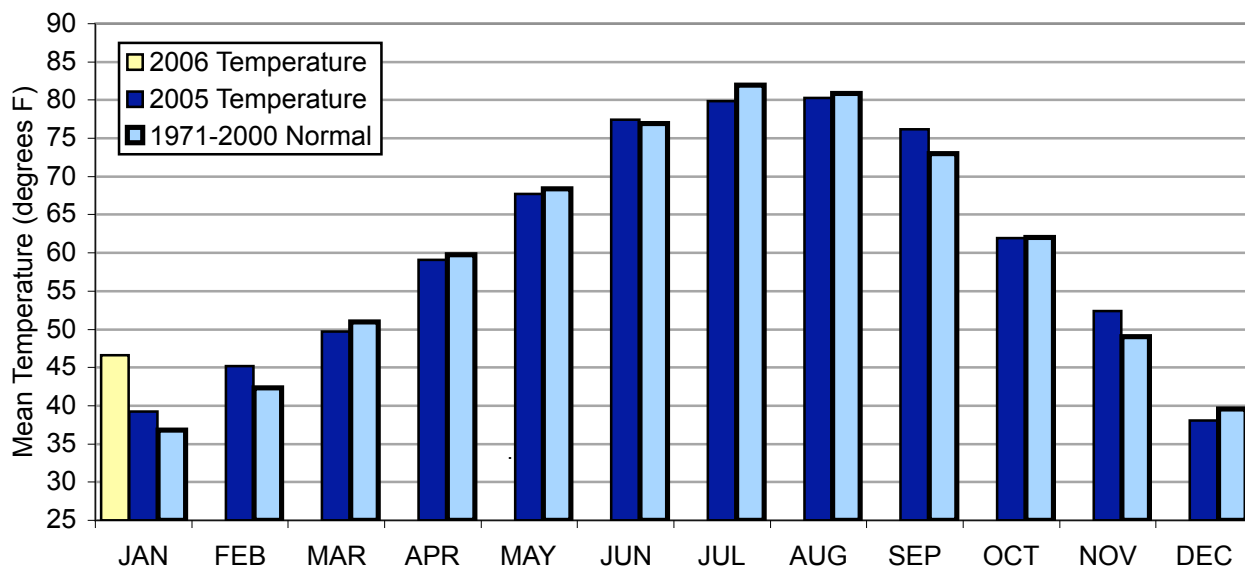




## January 2006 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Jan-05 (F)
Panhandle	42.1	9.1	3rd Warmest	42.6 (1953)	19.5 (1930)	35.9
North Central	45.2	11.7	1st Warmest	43.8 (1923)	19.4 (1930)	34.7
Northeast	46.0	11.4	1st Warmest	44.4 (1933)	21.3 (1940)	38.3
West Central	46.4	11.4	1st Warmest	45.8 (1923)	20.8 (1930)	37.5
Central	47.4	11.2	1st Warmest	46.0 (1933)	22.5 (1930)	39.3
East Central	47.6	10.3	2nd Warmest	47.7 (1933)	24.8 (1940)	42.1
Southwest	47.8	10.3	1st Warmest	47.8 (1923)	24.2 (1930)	40.0
South Central	49.2	10.1	2nd Warmest	49.5 (1923)	27.0 (1930)	43.6
Southeast	47.9	8.3	5th Warmest	49.4 (1952)	28.3 (1979)	44.8
Statewide	46.6	10.5	1st Warmest	46.0 (1923)	23.5 (1930)	39.5

## 2005 and 2006 Statewide Temperature Monthly Averages vs. Normal



## Mesonet Extremes for January 2006

Climate Division	High Temp			Low Temp			High Monthly Rainfall		High Daily Rainfall		
	(F)	Day	Station	(F)	Day	Station	(inches)	Station	(inches)	Day	Station
Panhandle	85	7th	Buffalo	6	17th	Kenton	0.30	Arnett	0.21	10th	Arnett
North Central	85	3rd	Alva	10	10th	Seiling	0.55	Red Rock	0.29	11th	Blackwell
Northeast	79	1st	Pawnee	18	21st	Burbank	1.67	Jay	1.00	28th	Porter
West Central	87	3rd	Camargo	12	10th	Camargo	0.57	Bessie	0.29	22nd	Bessie
Central	80	3rd	Guthrie	13	21st	El Reno	0.80	Guthrie	0.56	28th	Okemah
East Central	77	1st	Webbers Falls	19	10th	Stigler	2.31	Cookson	1.82	28th	Cookson
Southwest	87	3rd	Altus	15	21st	Mangum	0.35	Hinton	0.23	22nd	Hinton
South Central	83	3rd	Ringling	19	14th	Sulphur	3.02	Lane	1.67	28th	Lane
Southeast	79	1st	Antlers	17	18th	Wister	4.04	Broken Bow	2.02	22nd	Broken Bow
Statewide	87	3rd	Altus	6	17th	Kenton	4.04	Broken Bow	2.02	22nd	Broken Bow

# February Climatological Outlook

February is the warmest of the Oklahoma's three winter months, a product of the combination of gradually lengthening days - often heralding an illusory approach of spring - and the very real existence of the continuing winter. Recorded temperatures in Oklahoma during the second month of the year traverse a range of 126 degrees Fahrenheit, from 99 degrees at Arapaho on February 24, 1918 to -27 degrees at Vinita on February 13, 1905. The latter thermometer reading is tied as the state's all-time lowest temperature. Oklahoma's normal monthly temperature, based on data obtained from 1971 through 2000, is 42.3 degrees. Monthly values of normal daily maximum temperatures across the state range between 60.3 degrees along the Red River at Waurika and 49.5 degrees at Newkirk near the state's northern border. Normal daily minimum temperatures vary between 34.4 degrees at Waurika and 22.0 degrees in the Panhandle at Beaver. The monthly mean temperatures for February, compiled as a statewide average since 1892, have varied between a high of 50.7 degrees in 1954 and a low of 26.6 degrees in both 1899 and 1905.

## Temperature

Mean: 42.3 degrees  
Warmest February: 1954, 51.8 degrees  
Coolest February: 1899, 27.9 degrees  
Hottest recorded: 99 degrees, Arapaho, February 24, 1918  
Coldest recorded: -27 degrees, Vinita, February 13, 1905

Of all the other months, only January has a normal precipitation lower, when averaged statewide, than February's 1.77 inches. Southeastern Oklahoma's Idabel possesses the state's greatest precipitation normal during February at 3.60 inches. Kenton, in the shadow of Black Mesa, gains distinction as the state's driest reporting station during February with a normal total of 0.33 inch. The February statewide-averaged precipitation varies substantially, being bounded by a low of 0.18 inch attained 1996 and a high of, 4.66 inches in 1938. In contrast to the many stations that have suffered through February precipitation voids, Tuskahoma was treated to an excessive 13.21 inches during February 1945. Snow is an important part of the precipitation picture in northwestern Oklahoma. Helena and Woodward both average about 4.7 inches of snow during February, compared to less than one-half inch at stations in southeastern Oklahoma.

## Precipitation

Mean: 1.77 inches  
Wettest February: 1938, 6.44 inches  
Driest February: 1947 and 1996, 0.20 inches  
Wettest location: Idabel, 3.60 inches  
Driest location: Kenton, 0.33 inches  
Most recorded: 13.21 inches, Tuskahoma, 1945

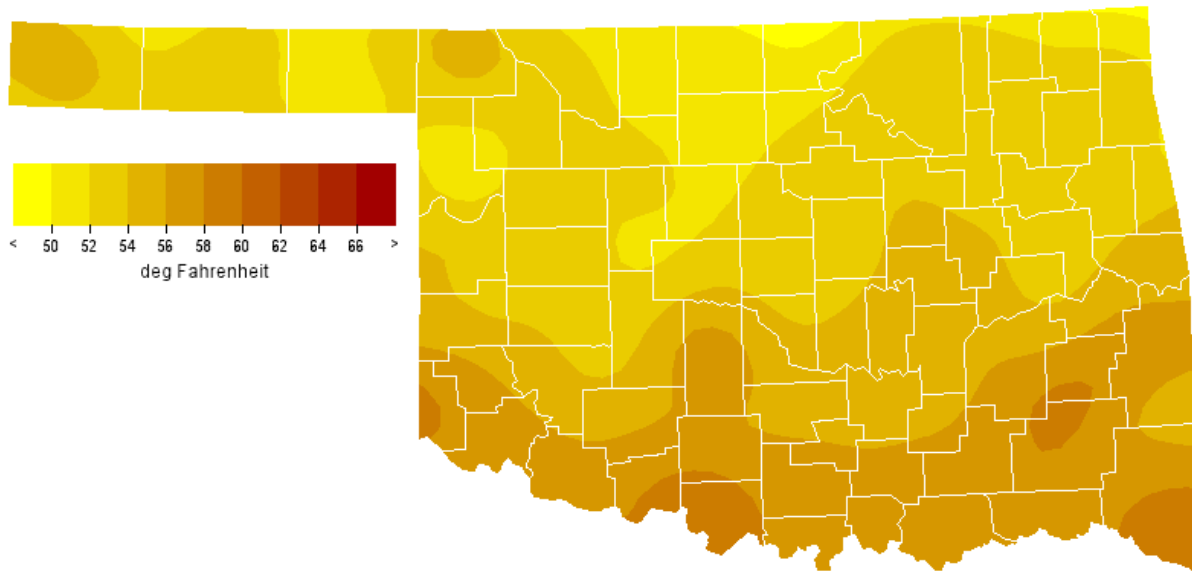
Oklahoma's extreme snowstorm of record was the blizzard of February 21-23, 1971. This blizzard buried northwestern Oklahoma under as much as three feet of snow, not accounting for drifts. Buffalo was the hardest hit, reporting 23 inches of snow on the 21st and a state-record snow depth of 36 inches by the morning of the 24th. The snow was driven by winds 30 to 50 miles per hour, producing drifts as high as 20 feet. Military cargo planes were used to airdrop hay to cattle stranded in the far-flung pastures of the region. Losses to agriculture were estimated at \$2.1 million (1971 dollars). Lost livestock included approximately 11,000 cattle, 3,500 hogs, and 1,000 sheep. Buffalo reported a total of 39.5 inches of snow during the month (a state record for all months).

## Tornadoes

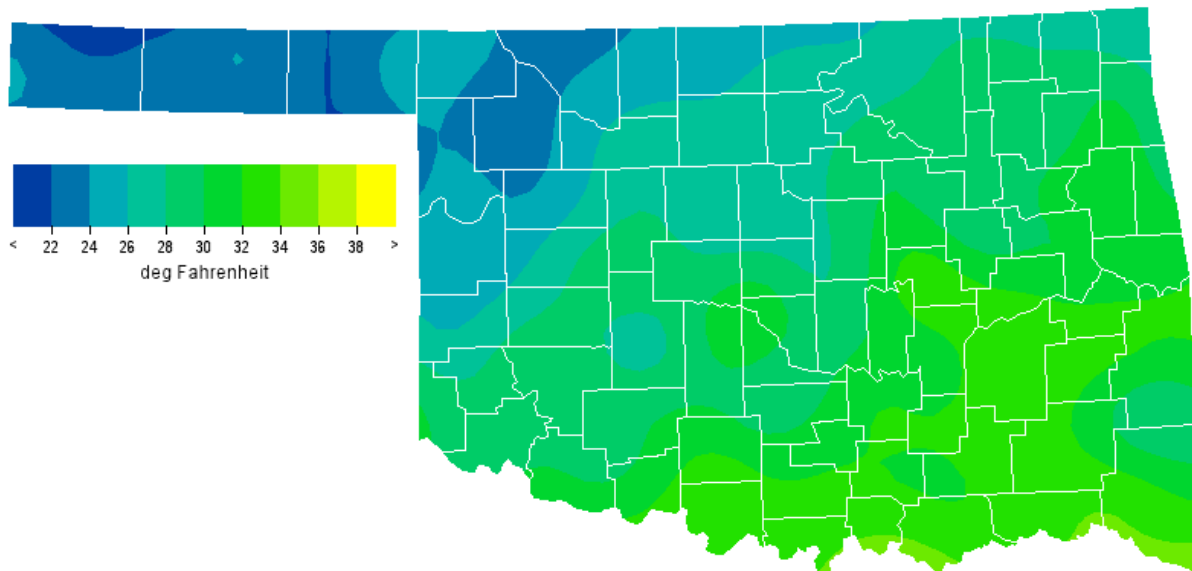
Average February Tornadoes: 0.8  
Most: 6 (1975)

Tornadoes are not generally considered a February phenomenon, but a total of 44 February tornadoes have been recorded across the state since 1950, including six in 1975. Three people were killed on February 22, 1975, bringing the confirmed total of February tornado deaths in the state to nine, according to storm-by-storm death tolls compiled by Thomas P. Grazulis and published in the book "Significant Tornadoes: 1880-1989."

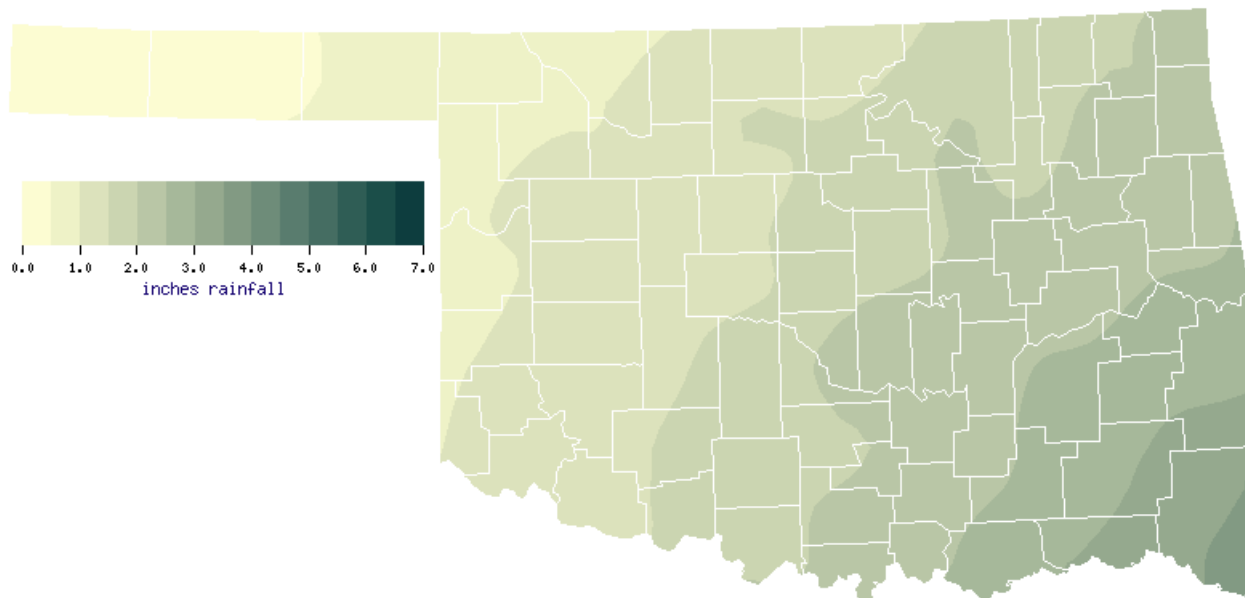
## February Normal Monthly Maximum Temperature (1971-2000)



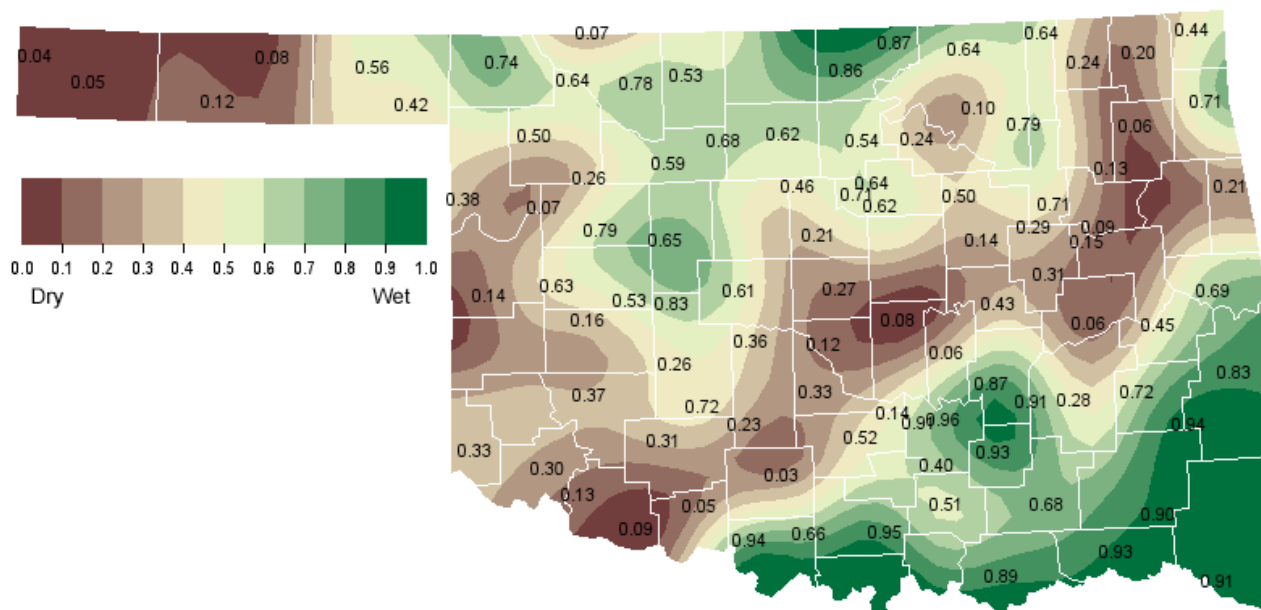
## February Normal Monthly Minimum Temperature (1971-2000)



## February Normal Precipitation (1971-2000)

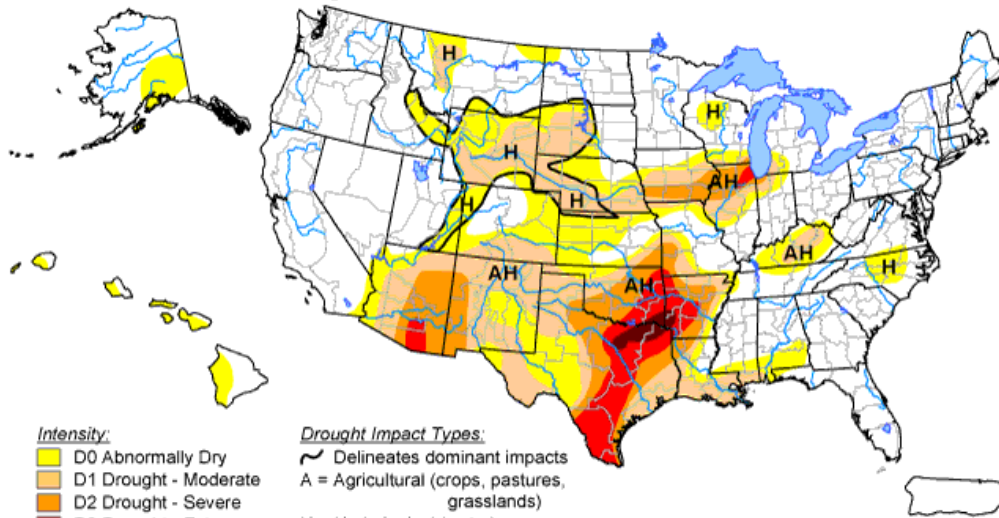


## February 1, 2006 Soil Moisture Conditions at 25cm



# U.S. Drought Monitor

January 31, 2006  
Valid 7 a.m. EST



**Intensity:**  
 D0 Abnormally Dry  
 D1 Drought - Moderate  
 D2 Drought - Severe  
 D3 Drought - Extreme  
 D4 Drought - Exceptional

**Drought Impact Types:**  
 ~ Delineates dominant impacts  
 A = Agricultural (crops, pastures, grasslands)  
 H = Hydrological (water)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>

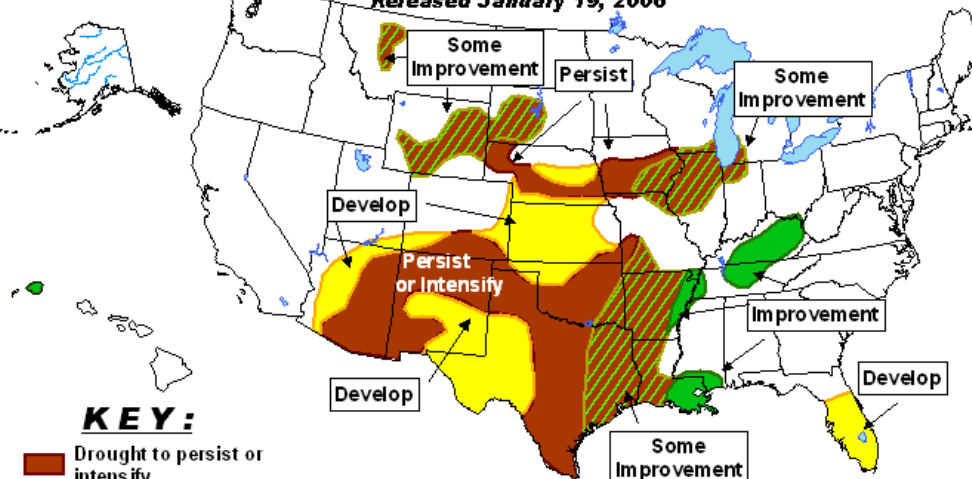


Released Thursday, February 2, 2006  
 Author: Rich Tinker, CPC/NCEP/NWS/NOAA



## U.S. Seasonal Drought Outlook

Through April 2006  
 Released January 19, 2006

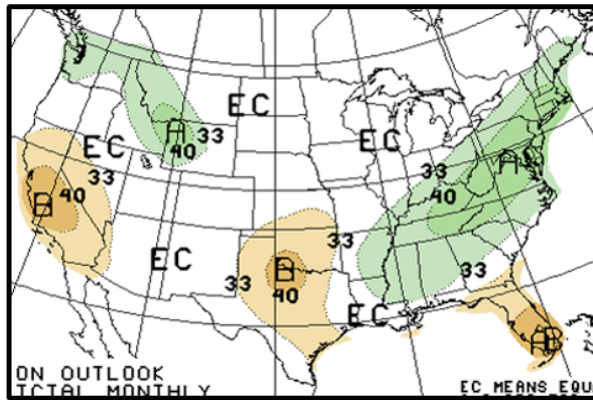


**KEY:**

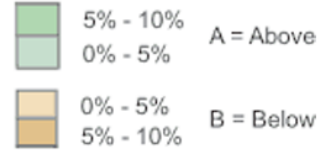
- Drought to persist or intensify
- Drought ongoing, some improvement
- Drought likely to improve, impacts ease
- Drought development likely

Depicts general, large-scale trends based on subjectively derived probabilities guided by numerous indicators, including short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance, so use caution if using this outlook for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4). For weekly drought updates, see the latest Drought Monitor map and text. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

## February 2006 U.S. Precipitation Forecast

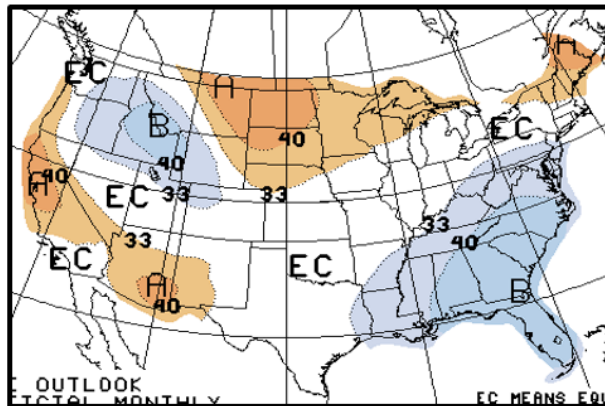


Percent Likelihood  
of Above or Below  
Average Precipitation\*

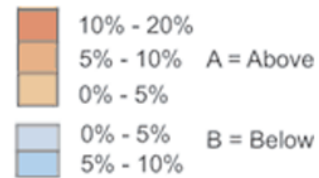


\*EC indicates no forecasted anomalies due to lack of model skill.

## February 2006 U.S. Temperature Forecast



Percent Likelihood  
of Above and Below  
Average Temperatures\*

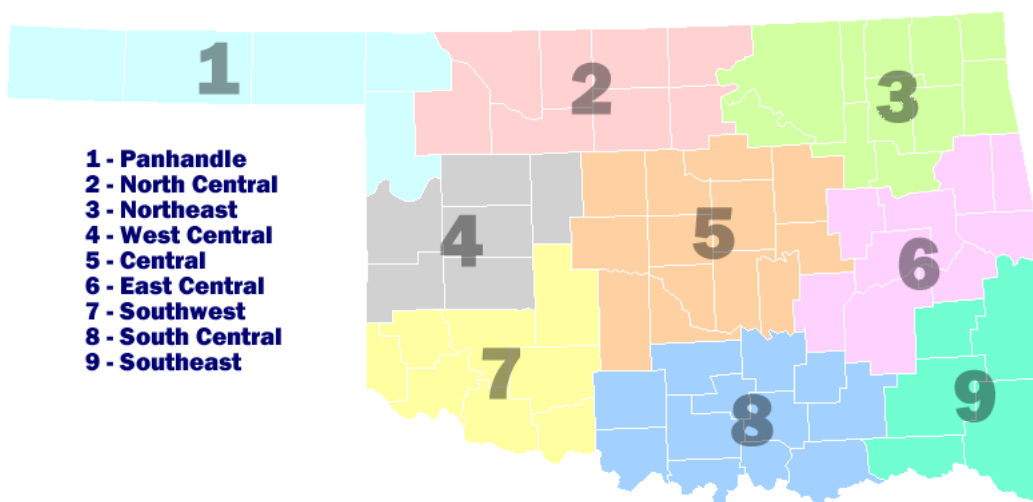


\*EC indicates no forecasted anomalies due to lack of model skill.

## February Climate Normals

Climate Division	Max. Temperature (°F)	Min. Temperature (°F)	Avg. Temperature (°F)	Precipitation (inches)
1	53.3	23.8	38.6	0.64
2	51.4	25.1	38.3	1.23
3	52.9	28.8	40.9	1.96
4	53.2	26.9	40.1	1.09
5	53.9	29.2	41.6	1.77
6	54.4	31.2	42.8	2.35
7	55.9	29.0	42.5	1.36
8	56.8	31.9	44.4	2.21
9	57.3	31.9	44.6	3.13
Statewide	54.2	28.7	41.5	1.82

## 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 may 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 may 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/wwcgi.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.ocs.ou.edu> or

<http://www.ocs.ou.edu/>

E-mail ([ocs@ou.edu](mailto:ocs@ou.edu)) or telephone (405/325-2541)



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