# OKLAHOMA MONTHLY CLIMATE SUMMARY
# NOVEMBER 2007

OKLAHOMA CLIMATOLOGICAL SURVEY

An unimaginative description of November's weather could be "warm and dry", but it would be difficult to describe it in any other manner. The month actually had two distinct climates. Prior to the Thanksgiving holiday, the weather was abundantly warm and exceedingly dry. As the holiday approached, the cold air arrived in earnest and the previous warmth became but a fond memory. In all, it was the 31st warmest and 13th driest November on record with only a brief rainstorm early and a minor snow later to quench the parched soils of a dry fall. After the abundant rainfall of the previous eight months, the spigot was turned off and the season finished as the 32nd driest and 19th warmest on record. Despite the dry fall, the year-to-date rainfall still ranked as the 12th wettest on record.

## Precipitation

No part of the state managed to eclipse normal rainfall for the month. In fact, most of the Oklahoma Mesonet sites measured less than an inch of precipitation for the month. That statewide average total was just under a half of an inch, more than two inches below normal. The Panhandle and extreme western and southern Oklahoma have been the hardest hit during the fall months. The Panhandle had its fifth driest fall on record at more than three inches below normal. The dryness for the Panhandle extends even farther back, with their year-to-date total through November ranked as the 18th driest such period on record. Other parts of the state clung to earlier rains for their lofty rankings on the wet side. Central Oklahoma still experienced its second wettest January-November on record.

## Temperature

The statewide average temperature reflects the warmth of the majority of the month at more than two degrees above normal. The Panhandle, which spent more time on the north side of several cold fronts, was the closest to normal with a departure of 0.8 degrees, the 50th warmest November for that area. The fall season was the 19th warmest statewide, and the January-November ranked as the as the 36th warmest.

**November 2007 Statewide Extremes**

| Description | Extreme | Station | Day |
|---|---|---|---|
| High Temperature | 87ºF | Buffalo | 19 |
| Low Temperature | 9ºF | Beaver | 25 |
| High Precipitation | 1.67 in. | Idabel | |
| Low Precipitation | 0.00 in. | 5 Stations | |

## November Daily Highlights

**November 1-4:** The month's first few days were dry with cool mornings and pleasant afternoons. By the fourth, high temperatures were in the 80s, 15 degrees above normal.

**November 5-11:** A strong cold front entered northwest Oklahoma on the fifth. The front divided warm temperatures in the 80s in the south from the 60s in the north. Winds behind the front were from the north at 25-30 mph, with some gusts as high as 45 mph. The cold front cleared the state that night and brought the first freeze to a lot of Oklahoma that morning. High pressure at the surface built in after the front's passage to produce clear skies and seasonable high temperatures for the next couple of days. Low temperatures were downright cold, however, dropping into the 20s and 30s over much of the state. Unseasonably weather quickly returned by the eighth, and temperatures were once again into the 70s and 80s. A surge of low-level moisture on the 11th kept low temperatures 20-25 degrees above normal in the 50s and 60s. Winds gusted from the south in western Oklahoma to 40 mph.

**November 12-14:** Rains of consequence finally fell on the 12th after a cold front entered the state from the northwest. The rain was not heavy, with just over a half of an inch falling in localized areas of the southeast. The front did little to cool temperatures off as highs were once again in the 70s and 80s on the 13th. An even stronger surge of cold air arrived early on the 14th. No rain fell with this front, but winds gusted to over 50 mph.

**November 15-20:** The 15th was certainly cool compared to the rest of this five-day period, with lows in the 20s and 30s and highs mainly in the 50s. The weather warmed with highs once again into the 70s and 80s through the 20th. Lows were mild as well in the 40s and 50s. The state's highest temperature for the month of 86 degrees at Buffalo was set on the 19th. Oklahoma City set a new record high temperature for the 20th with a reading of 82 degrees.

**November 21-25:** The bottom dropped out of the warm weather parade on the 21st just in time for the Thanksgiving holiday. A significant cold front dropped temperatures well below normal. High temperatures struggled to reach the 40s. Thanksgiving was mostly cloudy and cold, and the state's first significant snowfall of the season fell the next day on the 23rd. One-to-three inches fell in far northwestern Oklahoma. Isolated amounts of four inches were reported near Erick and Stillwater. Scattered snow and rain showers lingered for a couple more days. The month's lowest temperature occurred at Beaver on the 25th with a reading of nine degrees.

**November 26-30:** November ended with a string of uneventful days. Temperatures were more seasonable up until the final day when another strong cold front entered the state. Temperatures remained near the freezing mark in the northwest with a chilly rain falling in central Oklahoma.

### November 2007 Statewide Statistics

#### Temperature

| | Average | Depart. | Rank (1895-2007) |
|---|---|---|---|
| Month (November) | 50.5ºF | 2.2ºF | 31st Warmest |
| Season-to-date (Sep-Nov) | 62.9ºF | 2.2ºF | 19th Warmest |
| Year-to-Date (Jan-Nov) | 62.1ºF | 0.5ºF | 36th Warmest |

#### Precipitation

| | Total | Depart. | Rank (1895-2007) |
|---|---|---|---|
| Month (November) | 0.47 in. | -2.35 in. | 13th Driest |
| Season-to-date (Sep-Nov) | 6.34 in. | -3.67 in. | 32nd Driest |
| Year-to-Date (Jan-Nov) | 38.90 in. | 4.23 in. | 12th Wettest |

Depart. = Departure from 30-year normal

## November 2007 Severe Weather

### Significant Tornadoes (EF2 or greater)

No significant tornadoes were reported in the state.

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

No significant hail events were reported in the state.

### Wind Gusts (70 mph or greater)

No significant wind gusts were reported in the state.

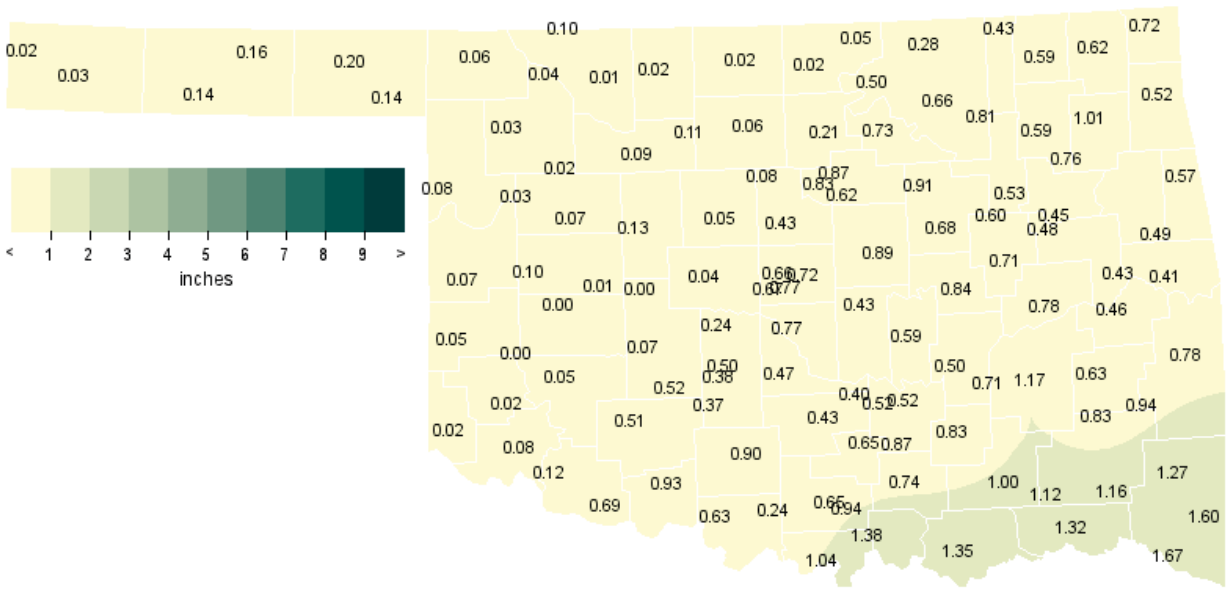
### Flooding

No significant flooding events were reported in the state.

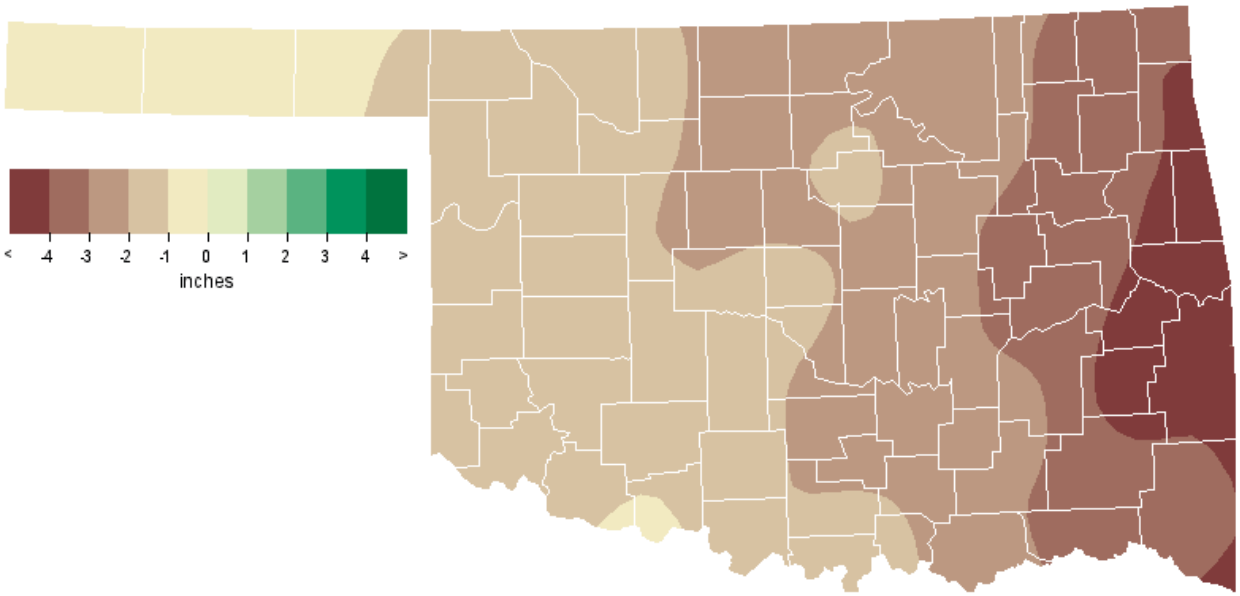
## Record Event Reports

| Description | Day | Location | Record | Previous Record | Year |
|---|---|---|---|---|---|
| High Temperature | 20 | Oklahoma City | 82 | 78 | 1989 |

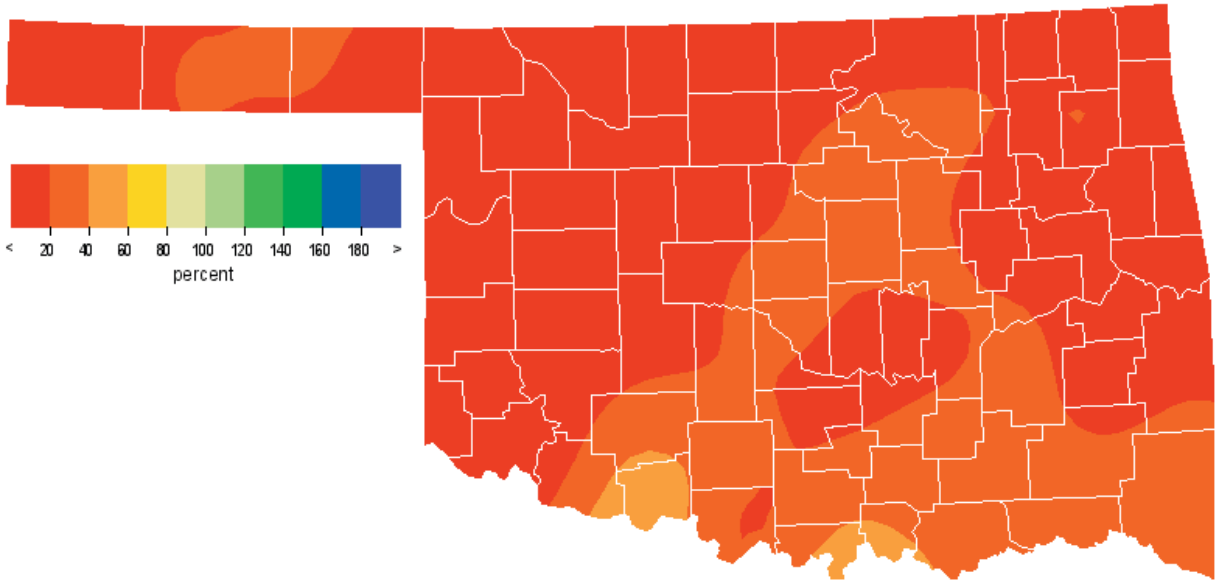
## *November 2007 Observed Precipitation*



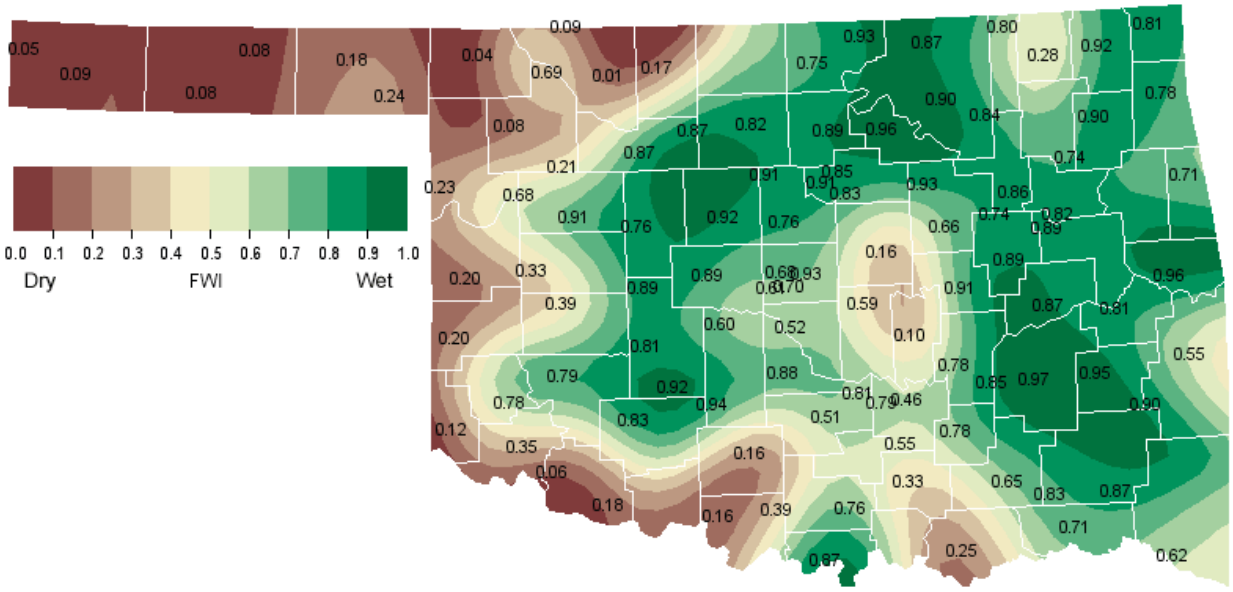

## *November 2007 Departure from Normal Precipitation*



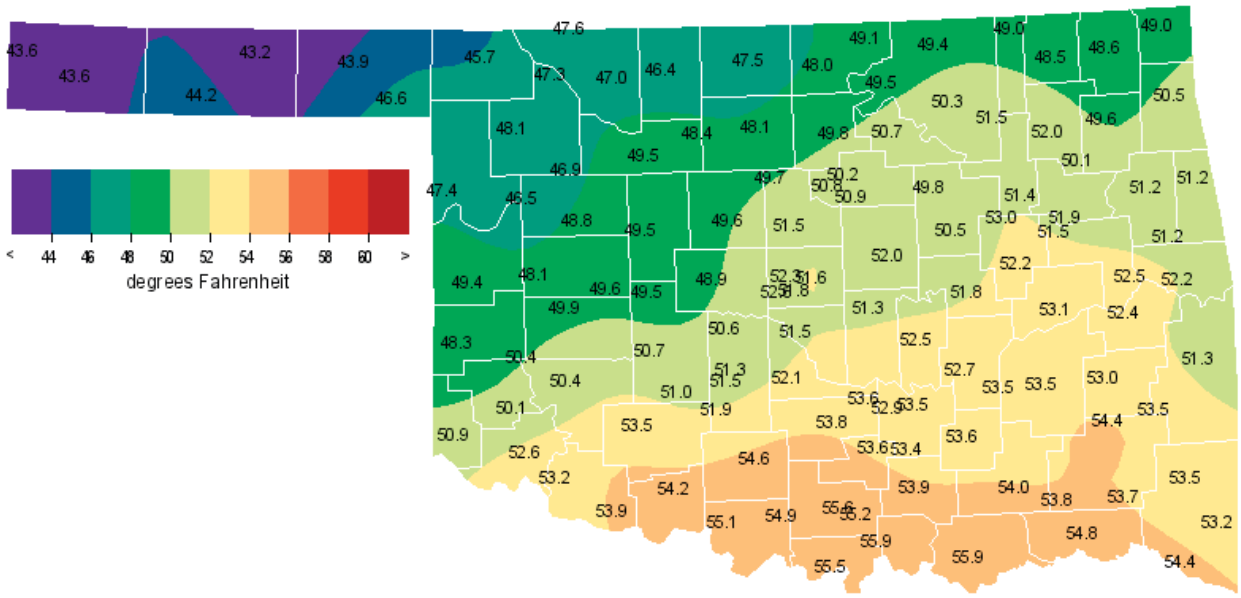
## *November 2007 Percent of Normal Precipitation*



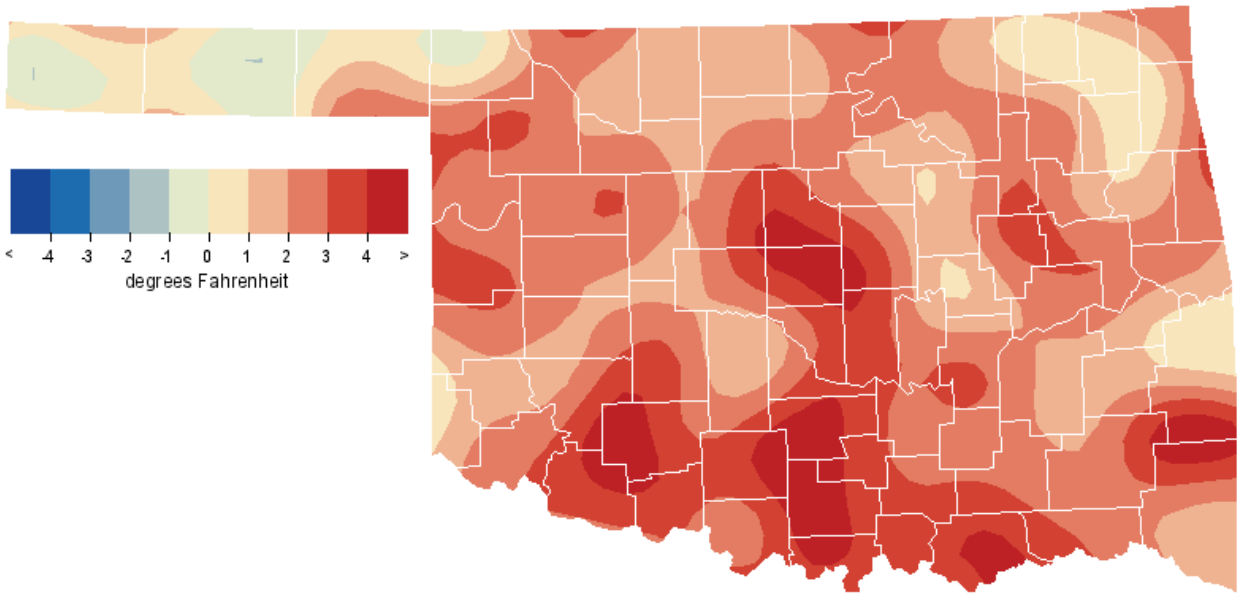

## *November 2007 Average Soil Moisture at 25cm*



## *November 2007 Average Temperature*




## *November 2007 Departure from Normal Temperature*



# *Mesonet Monthly Summary for November 2007*

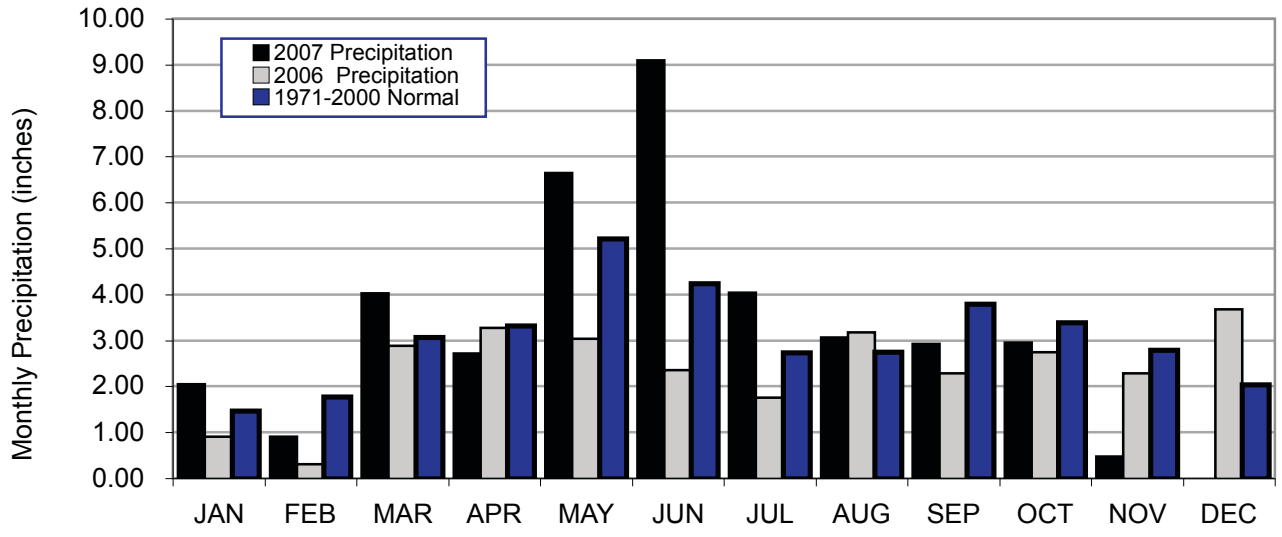
| NAME | MEAN TEMP | HIGH TEMP | HIGH DAY | LOW TEMP | LOW DAY | HDD | CDD | TOT PPT | HIGH 24-HR | HIGH DAY |
|---|---|---|---|---|---|---|---|---|---|---|
| **PANHANDLE** | | | | | | | | | | |
| Arnett | 47.3 | 85 | 20 | 14 | 29 | 533 | 3 | .08 | .08 | 24 |
| Beaver | 43.9 | 83 | 10 | 9 | 25 | 632 | 0 | .20 | .19 | 25 |
| Boise City | 43.7 | 81 | 19 | 11 | 25 | 640 | 0 | .03 | .03 | 24 |
| Buffalo | 45.6 | 86 | 19 | 11 | 23 | 588 | 6 | .06 | .06 | 24 |
| **NORTH CENTRAL** | | | | | | | | | | |
| Alva | 47.0 | 84 | 19 | 14 | 23 | 551 | 10 | .01 | .01 | 24 |
| Blackwell | 48.1 | 79 | 19 | 14 | 23 | 512 | 4 | .02 | .02 | 24 |
| Breckinridge | 48.2 | 78 | 20 | 14 | 23 | 509 | 5 | .06 | .05 | 24 |
| Cherokee | 46.4 | 83 | 19 | 13 | 23 | 565 | 7 | .02 | .02 | 24 |
| Fairview | 49.6 | 81 | 19 | 17 | 23 | 474 | 11 | .09 | .09 | 24 |
| Freedom | 47.3 | 84 | 19 | 16 | 22 | 542 | 11 | .04 | .04 | 24 |
| Lahoma | 48.5 | 80 | 19 | 17 | 23 | 500 | 4 | .11 | .11 | 24 |
| **NORTHEAST** | | | | | | | | | | |
| Bixby | 51.4 | 79 | 11 | 17 | 23 | 419 | 11 | .53 | .36 | 25 |
| Burbank | 49.4 | 80 | 20 | 14 | 23 | 472 | 5 | .50 | .29 | 26 |
| Claremore | 52.0 | 79 | 11 | 18 | 23 | 402 | 12 | .59 | .33 | 25 |
| Copan | 49.0 | 80 | 12 | 14 | 23 | 481 | 3 | .43 | .17 | 25 |
| Foraker | 49.4 | 80 | 12 | 14 | 23 | 472 | 5 | .28 | .11 | 25 |
| Inola | 50.1 | 79 | 12 | 17 | 23 | 454 | 7 | .76 | .34 | 25 |
| Jay | 50.6 | 78 | 11 | 14 | 23 | 440 | 7 | .52 | .27 | 26 |
| Miami | 48.9 | 77 | 11 | 16 | 23 | 487 | 5 | .72 | .30 | 25 |
| **WEST CENTRAL** | | | | | | | | | | |
| Bessie | 49.9 | 82 | 20 | 18 | 23 | 455 | 2 | .00 | .00 | 1 |
| Butler | 48.1 | 83 | 20 | 12 | 23 | 511 | 5 | .10 | .09 | 24 |
| Camargo | 46.6 | 82 | 19 | 11 | 23 | 556 | 2 | .03 | .03 | 24 |
| Cheyenne | 49.4 | 81 | 20 | 21 | 22 | 469 | 2 | .07 | .07 | 24 |
| Erick | 48.3 | 82 | 4 | 14 | 23 | 501 | 1 | .05 | .04 | 24 |
| **CENTRAL** | | | | | | | | | | |
| Acme | 51.9 | 82 | 12 | 17 | 23 | 403 | 9 | .37 | .26 | 25 |
| Bowlegs | 52.5 | 80 | 4 | 17 | 23 | 391 | 16 | .59 | .33 | 25 |
| Bristow | 50.5 | 81 | 12 | 15 | 23 | 447 | 13 | .68 | .47 | 25 |
| Chandler | 52.0 | 81 | 12 | 20 | 23 | 398 | 8 | .89 | .62 | 25 |
| Chickasha | 51.3 | 82 | 12 | 16 | 23 | 418 | 7 | .50 | .32 | 25 |
| El Reno | 48.9 | 81 | 12 | 13 | 23 | 487 | 4 | .04 | .04 | 25 |
| Guthrie | 51.5 | 82 | 12 | 21 | 23 | 412 | 7 | .43 | .22 | 26 |
| Kingfisher | 49.7 | 80 | 4 | 15 | 23 | 464 | 5 | .05 | .05 | 24 |
| Marena | 50.8 | 81 | 20 | 17 | 23 | 431 | 4 | .83 | .47 | 26 |
| Minco | 50.6 | 80 | 20 | 21 | 23 | 435 | 3 | .24 | .16 | 25 |
| Marshall | 49.7 | 81 | 20 | 15 | 23 | 466 | 7 | .08 | .07 | 24 |
| Ninnekah | 51.6 | 81 | 20 | 18 | 23 | 409 | 7 | .38 | .18 | 25 |
| **EAST CENTRAL** | | | | | | | | | | |
| Calvin | 52.7 | 81 | 4 | 19 | 23 | 385 | 16 | .50 | .35 | 25 |
| Cookson | 51.1 | 77 | 11 | 15 | 23 | 425 | 9 | .49 | .33 | 25 |
| Eufaula | 53.2 | 78 | 11 | 25 | 23 | 367 | 12 | .78 | .44 | 25 |
| Haskell | 51.5 | 79 | 11 | 19 | 23 | 412 | 7 | .48 | .39 | 25 |
| Hectorville | 53.0 | 80 | 11 | 20 | 23 | 375 | 15 | .60 | .46 | 25 |
| McAlester | 53.6 | 81 | 5 | 23 | 23 | 362 | 19 | 1.17 | .58 | 12 |
| Okmulgee | 52.2 | 80 | 4 | 18 | 23 | 399 | 15 | .71 | .49 | 25 |
| **SOUTHWEST** | | | | | | | | | | |
| Altus | 52.6 | 84 | 20 | 21 | 26 | 380 | 8 | .08 | .08 | 30 |
| Apache | 51.0 | 80 | 12 | 20 | 23 | 423 | 3 | .52 | .39 | 25 |
| Fort Cobb | 50.7 | 81 | 20 | 19 | 23 | 430 | 3 | .07 | .03 | 25 |
| Grandfield | 54.0 | 85 | 12 | 24 | 22 | 348 | 18 | .69 | .41 | 25 |
| Hinton | 49.5 | 79 | 20 | 18 | 23 | 468 | 2 | .00 | .00 | 1 |
| Hobart | 50.4 | 80 | 20 | 19 | 23 | 442 | 5 | .05 | .03 | 30 |
| **SOUTH CENTRAL** | | | | | | | | | | |
| Ada | 53.4 | 81 | 12 | 18 | 23 | 363 | 16 | .52 | .36 | 25 |
| Ardmore | 55.2 | 83 | 5 | 27 | 23 | 317 | 23 | .94 | .85 | 25 |
| Burneyville | 55.5 | 84 | 5 | 27 | 23 | 314 | 29 | 1.04 | .73 | 25 |
| Byars | 53.6 | 80 | 12 | 20 | 23 | 360 | 17 | .40 | .22 | 25 |
| Centrahoma | 53.7 | 83 | 5 | 18 | 23 | 361 | 21 | .83 | .76 | 25 |
| Durant | 55.9 | 82 | 4 | 24 | 23 | 302 | 28 | 1.35 | .80 | 25 |
| Fittstown | 53.4 | 80 | 5 | 23 | 23 | 363 | 14 | .87 | .72 | 25 |
| Ketchum Ranch | 54.7 | 84 | 12 | 23 | 23 | 331 | 21 | .90 | .54 | 25 |
| Lane | 54.0 | 81 | 5 | 22 | 23 | 346 | 16 | 1.00 | .76 | 25 |
| **SOUTHEAST** | | | | | | | | | | |
| Antlers | 53.7 | 82 | 5 | 20 | 23 | 353 | 15 | 1.12 | .69 | 25 |
| Broken Bow | 53.2 | 80 | 5 | 23 | 23 | 363 | 8 | 1.60 | 1.02 | 25 |
| Clayton | 54.4 | 81 | 13 | 19 | 23 | 348 | 29 | .83 | .57 | 25 |
| Cloudy | 53.7 | 80 | 5 | 25 | 23 | 352 | 12 | 1.16 | .70 | 25 |
| Hugo | 54.9 | 81 | 13 | 26 | 23 | 324 | 20 | 1.32 | .72 | 25 |

| NAME | MEAN TEMP | HIGH TEMP | HIGH DAY | LOW TEMP | LOW DAY | HDD | CDD | TOT PPT | HIGH 24-HR | HIGH DAY |
|---|---|---|---|---|---|---|---|---|---|---|
| Goodwell | 44.2 | 81 | 11 | 13 | 21 | 625 | 0 | .14 | .13 | 24 |
| Hooker | 43.3 | 82 | 19 | 10 | 25 | 652 | 0 | .16 | .12 | 24 |
| Kenton | 43.5 | 81 | 19 | 10 | 25 | 645 | 0 | .02 | .01 | 23 |
| Slapout | 46.5 | 83 | 19 | 14 | 25 | 554 | 0 | .14 | .14 | 25 |
| May Ranch | 47.6 | 84 | 19 | 16 | 22 | 529 | 7 | .10 | .10 | 24 |
| Medford | 47.4 | 79 | 4 | 16 | 23 | 531 | 4 | .02 | .02 | 24 |
| Newkirk | 49.1 | 79 | 20 | 16 | 23 | 482 | 5 | .05 | .04 | 24 |
| Red Rock | 49.8 | 81 | 20 | 16 | 23 | 462 | 6 | .21 | .12 | 25 |
| Seiling | 46.8 | 82 | 19 | 12 | 23 | 551 | 6 | .02 | .02 | 24 |
| Woodward | 48.1 | 83 | 19 | 17 | 23 | 515 | 8 | .03 | .03 | 24 |
| Nowata | 48.4 | 80 | 12 | 11 | 23 | 505 | 8 | .59 | .27 | 25 |
| Pawnee | 50.7 | 81 | 20 | 18 | 23 | 437 | 8 | .73 | .36 | 25 |
| Porter | 52.0 | 79 | 11 | 19 | 23 | 400 | 8 | .45 | .35 | 25 |
| Pryor | 49.6 | 79 | 12 | 16 | 23 | 473 | 9 | 1.01 | .45 | 12 |
| Skiatook | 51.5 | 79 | 12 | 20 | 23 | 412 | 8 | .81 | .39 | 25 |
| Vinita | 48.6 | 78 | 11 | 13 | 23 | 498 | 6 | .62 | .30 | 25 |
| Wynona | 50.3 | 81 | 12 | 16 | 23 | 450 | 9 | .66 | .35 | 25 |
| Putnam | 48.7 | 80 | 19 | 17 | 23 | 491 | 3 | .07 | .07 | 24 |
| Retrop | 50.4 | 82 | 20 | 19 | 23 | 442 | 5 | .00 | .00 | 1 |
| Watonga | 49.5 | 78 | 20 | 19 | 23 | 468 | 3 | .13 | .12 | 24 |
| Weatherford | 49.5 | 78 | 20 | 19 | 23 | 465 | 2 | .01 | .01 | 24 |
| Norman | 51.6 | 80 | 20 | 20 | 23 | 407 | 6 | .77 | .48 | 25 |
| Oilton | 49.8 | 81 | 12 | 13 | 23 | 468 | 11 | .91 | .48 | 25 |
| Oklahoma City | 51.8 | 81 | 20 | 19 | 23 | 403 | 7 | .77 | .39 | 25 |
| Oklahoma City | 52.3 | 81 | 20 | 21 | 23 | 390 | 8 | .66 | .39 | 26 |
| Oklahoma City | 52.5 | 81 | 20 | 23 | 23 | 382 | 7 | .67 | .41 | 26 |
| Okemah | 51.8 | 79 | 4 | 18 | 23 | 410 | 14 | .84 | .63 | 25 |
| Perkins | 50.9 | 80 | 20 | 18 | 23 | 428 | 6 | .62 | .36 | 26 |
| Shawnee | 51.3 | 79 | 4 | 21 | 23 | 415 | 5 | .43 | .29 | 25 |
| Spencer | 51.7 | 80 | 12 | 18 | 23 | 406 | 6 | .72 | .36 | 26 |
| Stillwater | 50.3 | 81 | 20 | 16 | 23 | 448 | 6 | .87 | .40 | 26 |
| Washington | 52.1 | 82 | 12 | 22 | 23 | 394 | 6 | .47 | .31 | 25 |
| Sallisaw | 52.2 | 79 | 5 | 19 | 23 | 394 | 11 | .41 | .36 | 25 |
| Stigler | 52.4 | 80 | 13 | 21 | 23 | 390 | 12 | .46 | .32 | 25 |
| Stuart | 53.5 | 80 | 13 | 22 | 23 | 360 | 17 | .71 | .63 | 25 |
| Tahlequah | 51.3 | 77 | 11 | 17 | 23 | 422 | 10 | ***** | ***** | *** |
| Webbers Falls | 52.5 | 80 | 11 | 20 | 23 | 390 | 15 | .43 | .32 | 25 |
| Westville | 51.2 | 76 | 11 | 17 | 23 | 421 | 6 | .57 | .31 | 25 |
| Hollis | 50.9 | 84 | 19 | 19 | 29 | 424 | 2 | .02 | .02 | 30 |
| Mangum | 50.0 | 83 | 19 | 15 | 23 | 451 | 2 | .02 | .01 | 29 |
| Medicine Park | 53.5 | 81 | 12 | 25 | 23 | 354 | 9 | .51 | .29 | 25 |
| Tipton | 53.2 | 84 | 20 | 21 | 29 | 366 | 13 | .12 | .07 | 25 |
| Walters | 54.2 | 83 | 12 | 23 | 23 | 343 | 18 | .93 | .61 | 25 |
| Madill | 55.9 | 83 | 5 | 27 | 23 | 302 | 29 | 1.38 | 1.04 | 25 |
| Newport | 55.6 | 84 | 5 | 26 | 23 | 310 | 28 | .65 | .55 | 25 |
| Pauls Valley | 53.7 | 82 | 12 | 23 | 23 | 355 | 16 | .43 | .31 | 25 |
| Ringling | 54.9 | 83 | 20 | 23 | 23 | 325 | 23 | .24 | .20 | 25 |
| Sulphur | 53.5 | 81 | 12 | 20 | 23 | 363 | 18 | .65 | .58 | 25 |
| Tishomingo | 53.9 | 82 | 5 | 22 | 23 | 353 | 20 | .74 | .69 | 25 |
| Vanoss | 52.9 | 81 | 12 | 17 | 23 | 379 | 15 | .52 | .40 | 25 |
| Waurika | 55.1 | 84 | 12 | 24 | 23 | 321 | 23 | .63 | .54 | 25 |
| Idabel | 54.4 | 82 | 5 | 22 | 23 | 334 | 15 | 1.67 | 1.13 | 25 |
| Mt Herman | 53.4 | 79 | 5 | 25 | 23 | 362 | 14 | 1.27 | .88 | 25 |
| Talihina | 53.5 | 81 | 13 | 22 | 23 | 365 | 19 | .94 | .71 | 25 |
| Wilburton | 53.0 | 80 | 13 | 20 | 23 | 377 | 17 | .63 | .40 | 25 |
| Wister | 51.3 | 80 | 5 | 16 | 23 | 417 | 6 | .78 | .61 | 25 |

## *November 2007 Mesonet Precipitation Comparison*

| Climate Division | Precipitation (inches) | Departure from Normal (inches) | Rank since 1895 | Wettest on Record (Year) | Driest on Record (Year) | Nov-06 |
|---|---|---|---|---|---|---|
| Panhandle | 0.10 | -0.94 | 22nd Driest | 4.07 (1909) | 0.00 (1897) | 0.02 |
| North Central | 0.06 | -2.02 | 13th Driest | 6.48 (1964) | 0.00 (1910) | 0.55 |
| Northeast | 0.61 | -3.01 | 18th Driest | 7.37 (1994) | 0.00 (1904) | 2.18 |
| West Central | 0.05 | -1.68 | 15th Driest | 6.62 (1964) | 0.00 (1897) | 1.05 |
| Central | 0.56 | -2.25 | 23rd Driest | 6.88 (1931) | 0.00 (1910) | 1.70 |
| East Central | 0.61 | -3.69 | 10th Driest | 10.16 (1996) | 0.20 (1914) | 5.71 |
| Southwest | 0.27 | -1.46 | 24th Driest | 6.61 (2004) | 0.00 (1897) | 0.94 |
| South Central | 0.77 | -2.33 | 24th Driest | 7.62 (1902) | 0.00 (1903) | 2.83 |
| Southeast | 1.13 | -3.94 | 11th Driest | 13.16 (1946) | 0.00 (1903) | 6.45 |
| Statewide | 0.47 | -2.35 | 13th Driest | 6.12 (2004) | 0.14 (1910) | 2.28 |

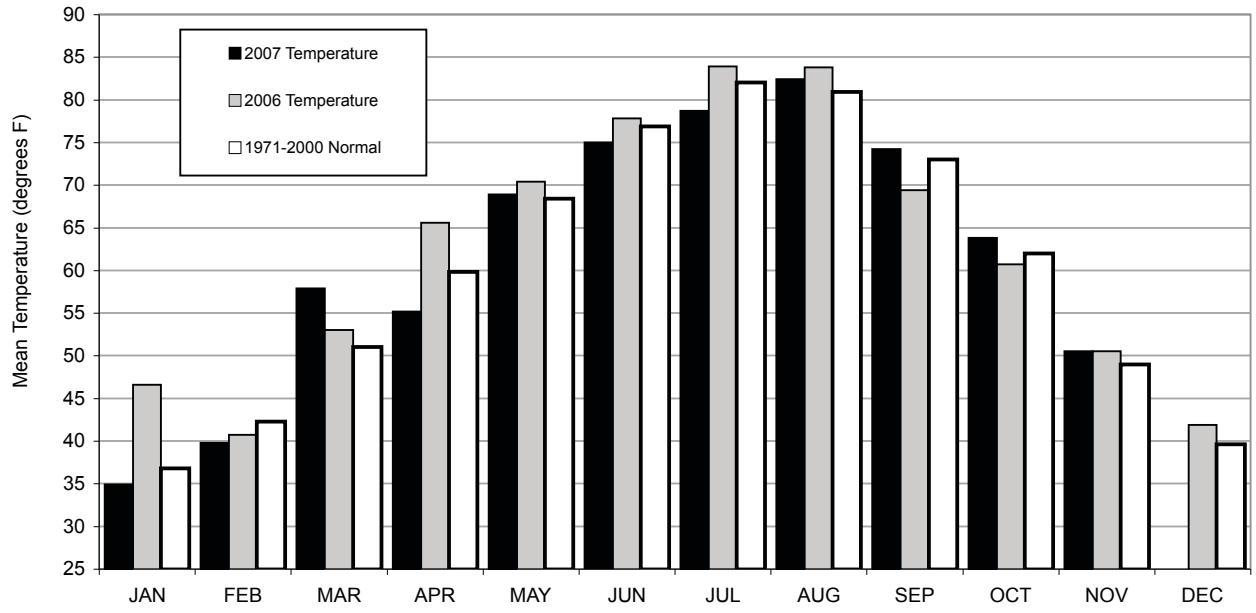
## *2006 and 2007 Statewide Precipitation Monthly Totals vs. Normal*



## *November 2007 Mesonet Temperature Comparison*

| Climate Division | Average Temp (F) | Departure from Normal (F) | Rank since 1895 | Hottest on Record (Year) | Coldest on Record (Year) | Nov-06 (F) |
|---|---|---|---|---|---|---|
| Panhandle | 44.8 | 0.8 | 50th Warmest | 51.4 (1999) | 36.0 (1929) | 45.8 |
| North Central | 48.0 | 1.7 | 42nd Warmest | 54.5 (1999) | 39.0 (1929) | 48.9 |
| Northeast | 50.1 | 2.1 | 36th Warmest | 56.4 (1999) | 40.9 (1929) | 50.4 |
| West Central | 48.9 | 2.1 | 36th Warmest | 54.7 (1999) | 39.7 (1929) | 49.5 |
| Central | 51.2 | 2.4 | 30th Warmest | 56.8 (1999) | 41.3 (1929) | 51.2 |
| East Central | 52.3 | 2.4 | 28th Warmest | 57.8 (1999) | 43.4 (1929) | 51.8 |
| Southwest | 51.8 | 2.6 | 28th Warmest | 56.3 (1999) | 42.1 (1929) | 51.5 |
| South Central | 54.4 | 3.4 | 20th Warmest | 58.3 (1927) | 44.1 (1929) | 53.0 |
| Southeast | 53.6 | 2.9 | 31st Warmest | 58.9 (1909) | 44.1 (1976) | 52.3 |
| Statewide | 50.5 | 2.2 | 31st Warmest | 56.0 (1999) | 41.3 (1929) | 50.5 |

## *2006 and 2007 Statewide Temperature Monthly Averages vs. Normal*



## *Mesonet Extremes for November 2007*

| Climate Division | High Temp (F) | Day | Station | Low Temp (F) | Day | Station | High Monthly Rainfall (inches) | Station | High Daily Rainfall (inches) | Day | Station |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Panhandle | 86 | 19th | Buffalo | 9 | 25th | Beaver | 0.20 | Beaver | 0.19 | 25th | Beaver |
| North Central | 84 | 19th | May Ranch | 12 | 23rd | Seiling | 0.21 | Red Rock | 0.12 | 25th | Red Rock |
| Northeast | 81 | 12th | Wynona | 11 | 23rd | Nowata | 1.01 | Pryor | 0.45 | 12th | Pryor |
| West Central | 83 | 20th | Butler | 11 | 23rd | Camargo | 0.13 | Watonga | 0.12 | 24th | Watonga |
| Central | 82 | 12th | Chickasha | 13 | 23rd | El Reno | 0.91 | Oilton | 0.63 | 25th | Okemah |
| East Central | 81 | 4th | Calvin | 15 | 23rd | Cookson | 1.17 | McAlester | 0.63 | 25th | Stuart |
| Southwest | 85 | 12th | Grandfield | 15 | 23rd | Mangum | 0.93 | Walters | 0.61 | 25th | Walters |
| South Central | 84 | 12th | Waurika | 17 | 23rd | Vanoss | 1.38 | Madill | 1.04 | 25th | Madill |
| Southeast | 82 | 5th | Idabel | 16 | 23rd | Wister | 1.67 | Idabel | 1.13 | 25th | Idabel |
| Statewide | 86 | 19th | Buffalo | 9 | 25th | Beaver | 1.67 | Idabel | 1.13 | 25th | Idabel |

# December Climatological Outlook

The winter month of December is Oklahoma's second coldest and third driest month. Overnight freezes are the rule, particularly in northern portions of the state, and winter storms often provide the state with snow and ice that create more havoc than the precipitation totals they provide are worth.

The statewide-averaged monthly mean temperature in December is 39.6 degrees. The range of mean temperature from south-to-north is greater than 10 degrees Fahrenheit, ranging from 44.2 degrees at Waurika to 33.5 degrees at Turpin. Since 1892, the historical range of December statewide-averaged mean temperature is from a low of 25.8 degrees in 1983 to a high of 45.4 degrees, achieved in 1965. Normal daily maximum temperatures for the month range from 45.2 degrees at Newkirk to 56.0 degrees at Waurika. Normals of daily minimum temperatures vary from 19.7 degrees at Beaver to 33.9 degrees at Okemah. The state's recorded December temperature extremes are 92 degrees at Ardmore on December 30, 1951 and 18 degrees below zero (-18) at Perry on December 22, 1989.

December precipitation, including rain and melted snow or sleet, when averaged statewide, accumulates only to a depth of 2.04 inches. The historical range of statewide-averaged monthly precipitation is from 0.10 inch in 1950 to 4.98 inches in 1984.The range of normal precipitation, increasing from the northwest to the southeast, is from 0.34 inch at Goodwell to 5.19 inches at Smithville. The extreme southeastern corner of the state received a record-breaking soaking in December 1971, exemplified by the 18.13 inches recorded at Bear Mountain Tower in Western McCurtain County, which established the state record for December precipitation at a given station. The state record for daily precipitation during December (11.34 inches) was established at the same location on December 10, 1971.

***Precipitation***
Mean: 2.04 inches
Wettest year: 1984, 4.98 inches
Driest year: 1980, 0.07 inches
Wettest location: Smithville, 5.19 inches
Driest location: Goodwell, 0.34 inches
Most recorded: 18.13 inches, Bear Mountain Tower, 1971

Snow is common in the northwestern portions of the state by late December. Boise City averages 6.1 inches of snow per December. Stations in the far southern portions of the state generally average less than one-half inch of snow during December. Records for snowfall extremes were set at Beaver. That panhandle city, while en route to a state-record seasonal snowfall of 87 inches, received 35 inches of snow in December 1911, including 22 inches reported on the 19th. From 1911 forward, sufficient snow has been on the ground on Christmas morning for large portions of the state to declare a "White Christmas" in seventeen different years. Most snowy Christmases have occurred in the state's northwestern half, but other areas of the state have also been affected from time-to-time.

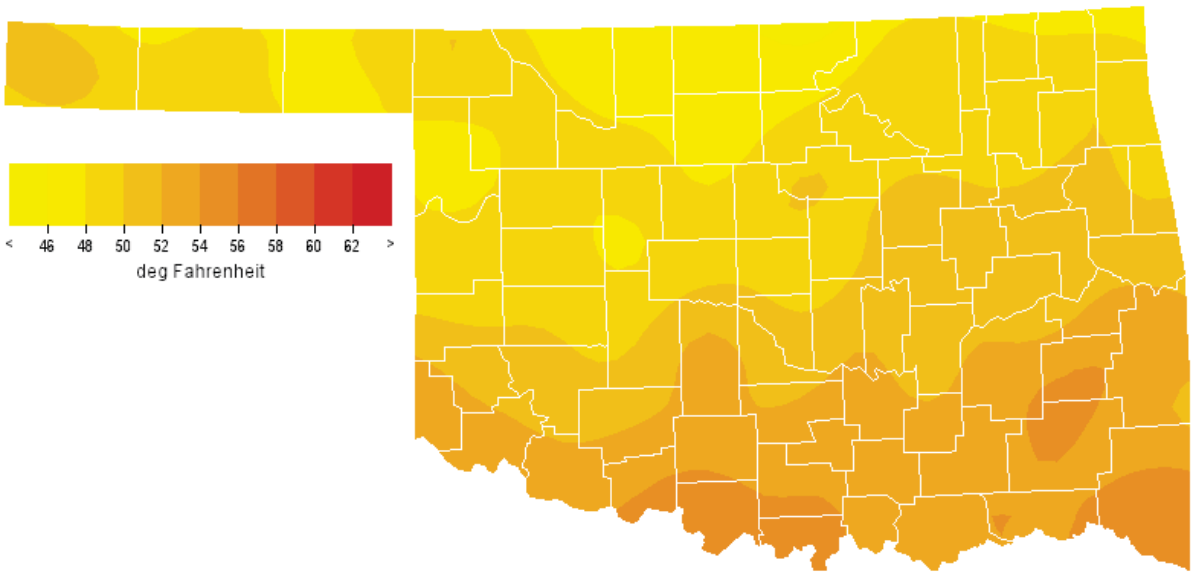
***Temperature***
Mean: 39.6 degrees
Warmest December: 1933 and 1965, 46.5 degrees
Coolest December: 1983, 26.5 degrees
Warmest location: Waurika, 44.2 degrees
Coolest location: Turpin, 33.5 degrees
Hottest recorded: 92 degrees, Ardmore, December 30, 1951
Coldest recorded: -19 degrees, Goodwell, December 12, 1932

An unfortunate by-product of developing winter storms is the presence of sleet or freezing rain. Major ice storms spread across much of the state, beginning on Christmas Day in 1987 and, again, in 2000. Those two storms left 114,000 and 175,000 customers, respectively, without power for several days. A similar storm in mid-December 1937 left extensive damage to power and telephone lines in central and northern Oklahoma. For many late December travelers, the winter storms that seem inevitable during the week between Christmas and New Year's Day sometimes appear to have become something of an Oklahoma tradition. Other major ice storms struck Oklahoma during the Decembers of 1897, 1916, 1924, 1969, 1972, and 1998.

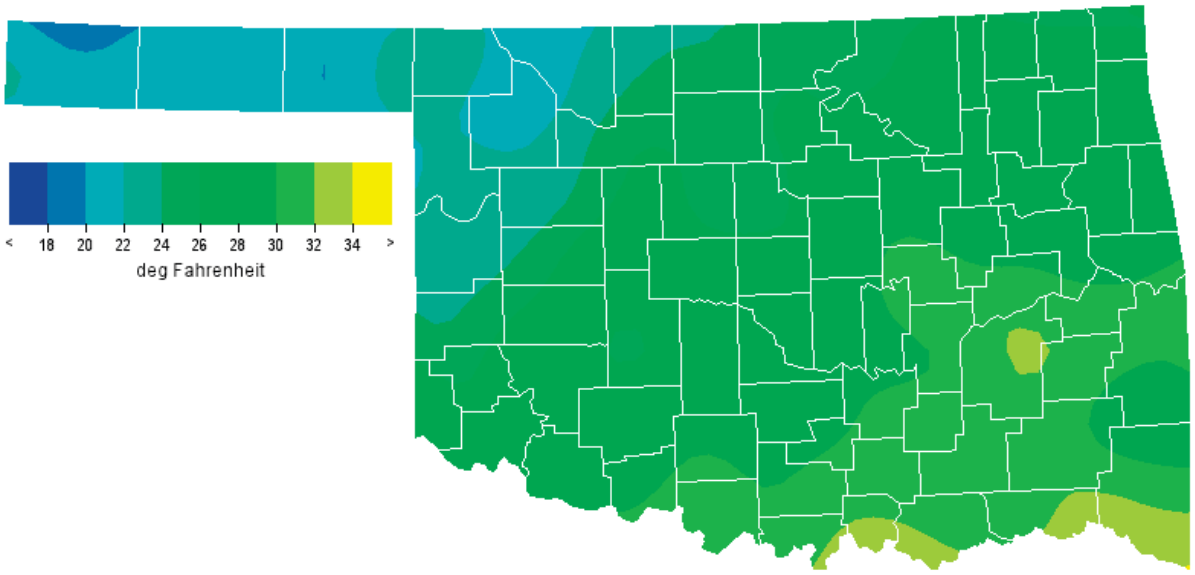
Tornadoes are not a regular December feature. Only 22, occurring in seven different years, are included in the comprehensive database that begins in 1950. Four tornadoes were reported in Oklahoma during each of 1971, 1975, and 1982.

***Tornadoes***
Average December Tornadoes: 0.4
Most: 4 (1982)

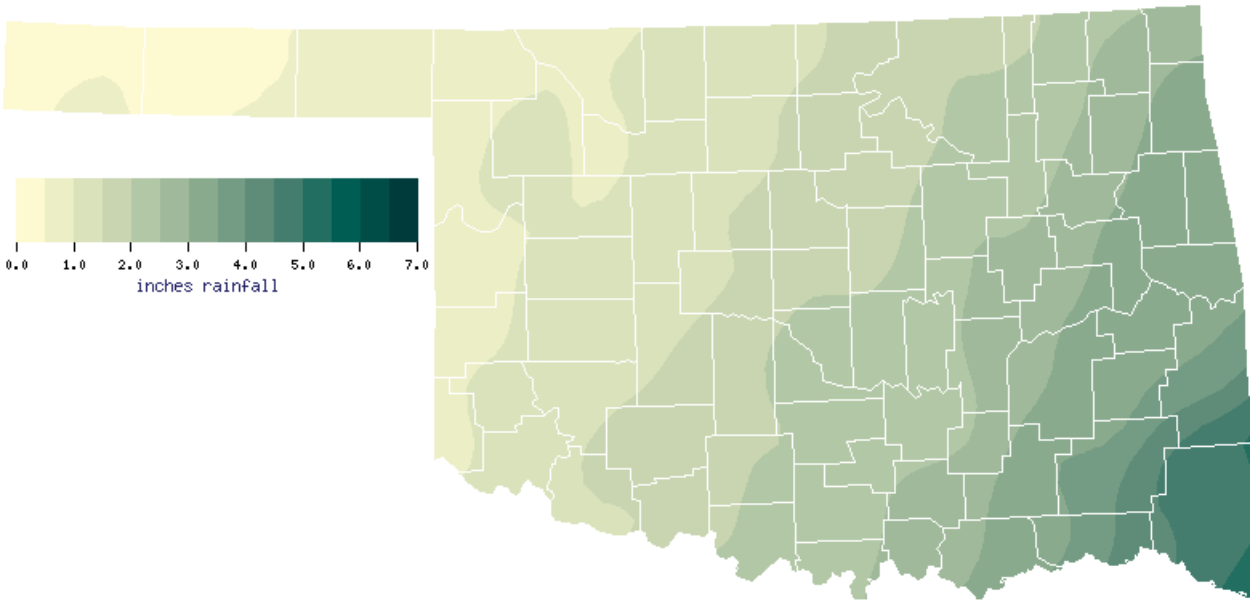
## *December Normal Daily Maximum Temperature (1971-2000)*



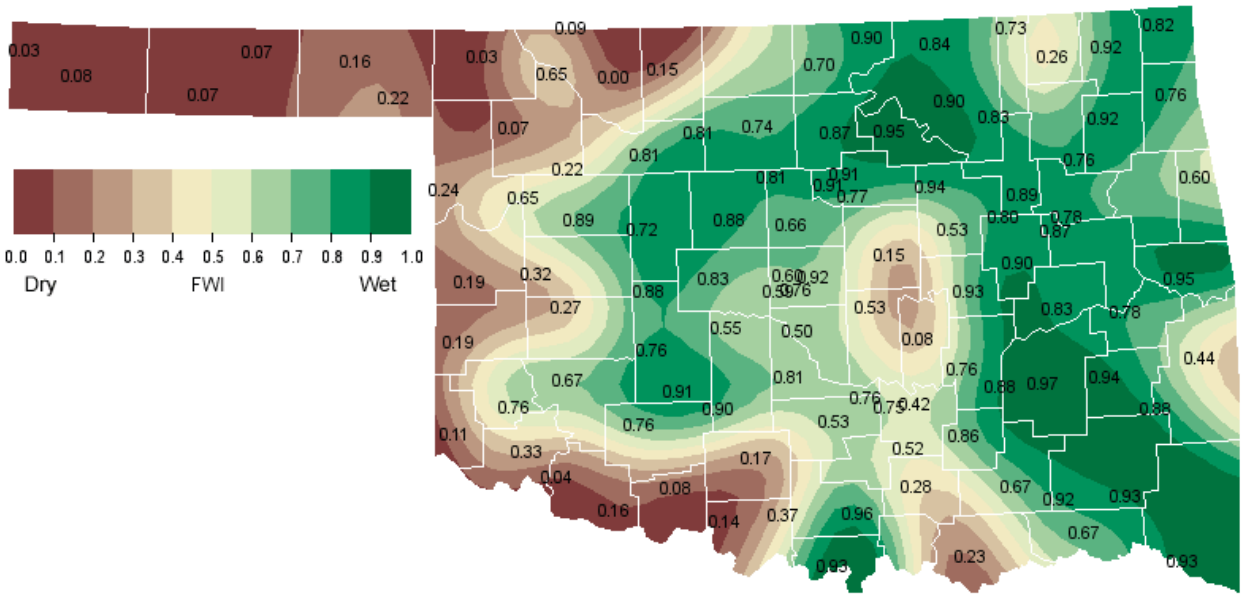

## *December Normal Daily Minimum Temperature (1971-2000)*



## *December Normal Precipitation (1971-2000)*




## *December 1, 2007 Soil Moisture Conditions at 25cm*



## *December 2007 Drought Indices*

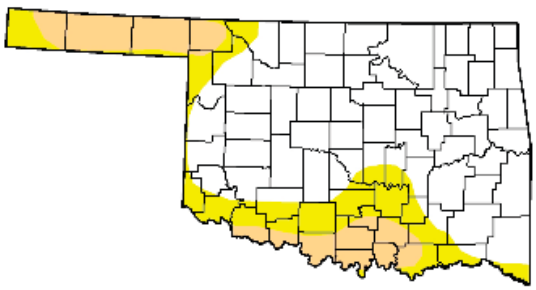
# U.S. Drought Monitor

**Oklahoma**

**November 27, 2007**
Valid 7 a.m. EST

*Drought Conditions (Percent Area)*

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|---|---|---|---|---|---|---|
| Current | 68.9 | 31.1 | 13.6 | 0.0 | 0.0 | 0.0 |
| Last Week (11/20/2007 map) | 68.7 | 31.3 | 11.6 | 0.0 | 0.0 | 0.0 |
| 3 Months Ago (09/04/2007 map) | 87.5 | 12.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| Start of Calendar Year (01/02/2007 map) | 31.3 | 68.7 | 39.8 | 24.5 | 18.2 | 0.0 |
| Start of Water Year (10/02/2007 map) | 95.6 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| One Year Ago (11/28/2006 map) | 10.8 | 89.2 | 68.7 | 38.9 | 23.7 | 10.2 |



*Intensity:*

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

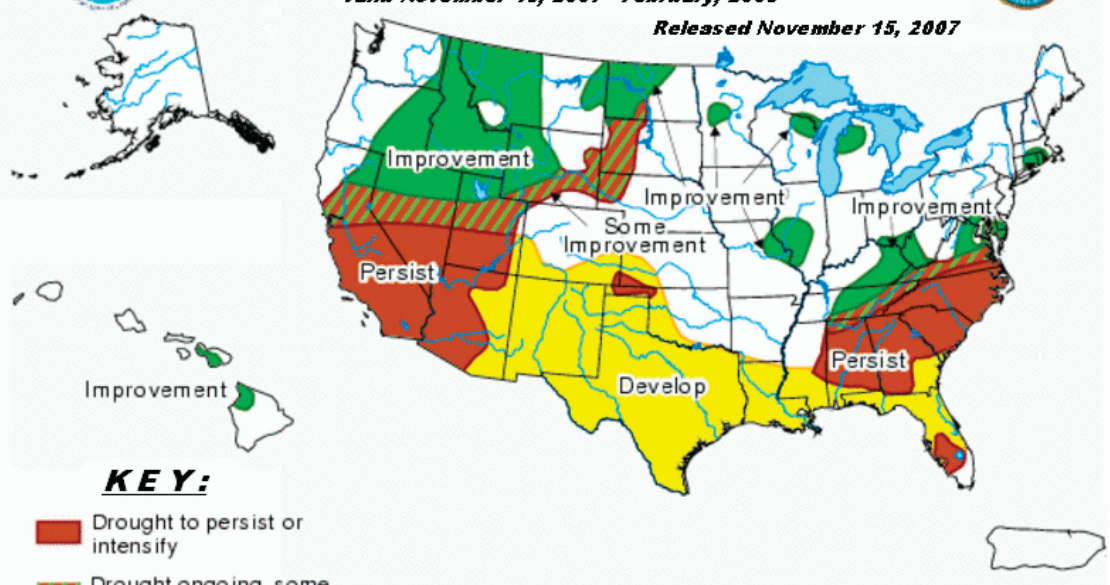
*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements*

**http://drought.unl.edu/dm**

***Released Thursday, November 29, 2007***
***Author: Brad Rippey, U.S. Department of Agriculture***

# U.S. Seasonal Drought Outlook

**Drought Tendency During the Valid Period**
***Valid November 15, 2007 - February, 2008***
***Released November 15, 2007***

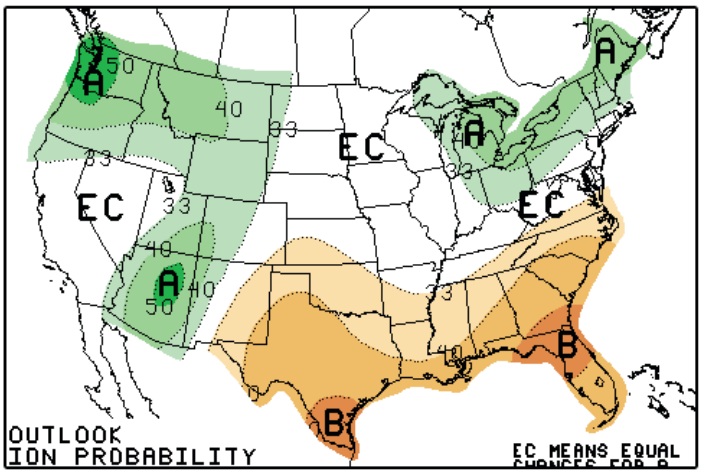



***KEY:***

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

Depicts large-scale trends based on subjectively derived probabilities guided by 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. Use caution for applications -- such as crops -- that can be affected by such events. 'Ongoing' drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. 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.

## *December 2007 U.S. Precipitation Forecast*



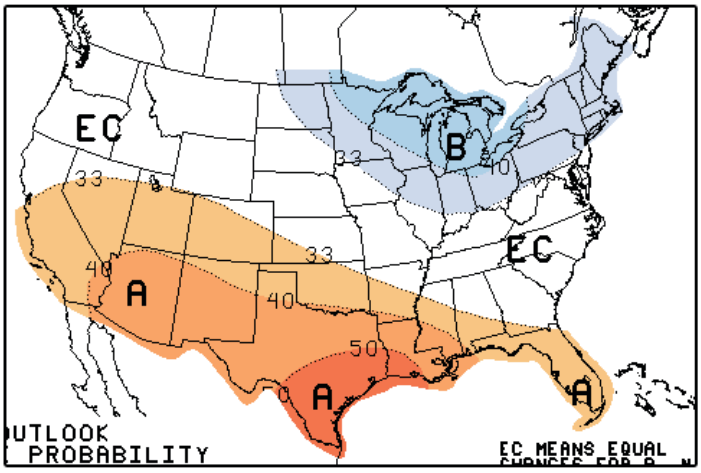

Percent Likelihood of Above or Below Average Precipitation*

5% - 10%
0% - 5%
A = Above

0% - 5%
5% - 10%
B = Below

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

## *December 2007 U.S. Temperature Forecast*




Percent Likelihood of Above and Below Average Temperatures*

10% - 20%
5% - 10%
0% - 5%
A = Above

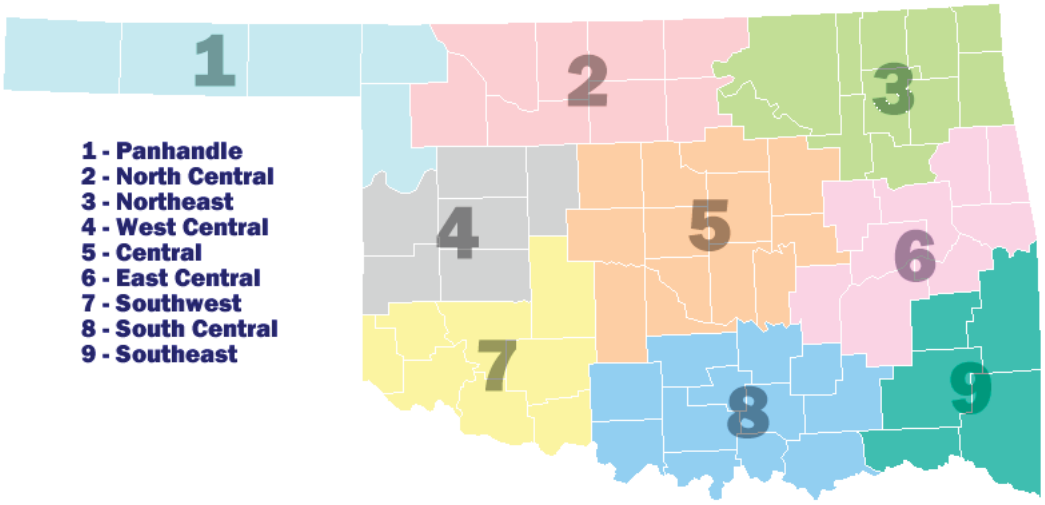
0% - 5%
5% - 10%
B = Below

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

## *December Climate Normals*

| Climate Division | Max. Temperature (°F) | Min. Temperature (°F) | Avg. Temperature (°F) | Precipitation (inches) |
|---|---|---|---|---|
| 1 | 49.2 | 21.7 | 35.5 | 0.68 |
| 2 | 47.2 | 23.9 | 35.6 | 1.30 |
| 3 | 49.4 | 27.8 | 38.6 | 2.29 |
| 4 | 48.8 | 25.3 | 37.1 | 1.11 |
| 5 | 50.2 | 28.0 | 39.1 | 1.98 |
| 6 | 51.2 | 30.0 | 40.6 | 3.01 |
| 7 | 51.6 | 27.1 | 39.4 | 1.39 |
| 8 | 53.3 | 30.4 | 41.9 | 2.54 |
| 9 | 53.9 | 30.7 | 42.3 | 4.21 |
| Statewide | 50.5 | 27.3 | 38.9 | 2.14 |

## *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

**Climate Calendars and other local weather and climate information**
Oklahoma Climatological Survey: http://climate.mesonet.org or
http://climate.ok.gov/
E-mail (ocs@ou.edu) or telephone (405/325-2541)

OKLAHOMA CLIMATOLOGICAL SURVEY

Oklahoma Climatological Survey is the State Climate Office for Oklahoma

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