Oklahoma Monthly Climate Summary

# FEBRUARY 2016

OKLAHOMA CLIMATOLOGICAL SURVEY

A warm, windy and dry February, plagued by wildfires, served as a fitting epitaph for a winter that largely failed to materialize. According to preliminary data from the Oklahoma Mesonet, the month ended more than 5 degrees above normal to rank as the ninth warmest February since records began in 1895. That propelled the climatological winter, December through February, to the fourth warmest on record at nearly 4 degrees above normal. February high temperatures rose consistently into the 70s and 80s according to the Mesonet, with Buffalo reaching the month's highest reading of 91 degrees on the 18th. The lowest temperature of 2 degrees was recorded at Kenton on the third. Only three single-digit low temperatures were reported by the 120 Mesonet stations during February. The 91 degrees at Buffalo was also the winter's highest reported temperature. Somewhat more unusual was the lack of any temperatures that fell below zero during the winter. Kenton fell to zero degrees on Dec. 17th for the Mesonet's lowest winter temperature, and the National Weather Service (NWS) cooperative observers at Okay and Ralston matched that mark.

Giving February an extra day this leap year helped improve the rainfall statistics with a burst of spring weather to end the month. Storms, severe at times, fired early in the evening across western Oklahoma before progressing east overnight. The rainfall amounts were spotty, but added enough moisture to bump the statewide average for the month to 1.13 inches, 0.7 inches below normal. The NWS cooperative site at Broken Bow led the state with 2.55 inches during February while Idabel led the Mesonet with 2.15 inches. The Boise City Mesonet site brought up the rear with 0.09 inches. The wettest December on record helped boost the winter to rank as the 15th wettest for the state at 1.5 inches above normal, despite the 19th driest January-February period. The first two months of the year saw a statewide average of 1.64 inches, nearly 2 inches below normal.

The spate of dry weather since the beginning of 2016 left the state with something it had not seen since late last fall – a splotch of color on the U.S. Drought Monitor map. Granted, there was no drought indicated on that map, but small patches of abnormally dry (D0) conditions were noted across south central and west central Oklahoma. Although not a drought designation, the abnormally dry label can indicate areas that are either entering or exiting drought; the former in this case. The dry start to the year combined with the warm and windy weather during February to create numerous days with high fire danger. The worst of those days came on Feb. 18 when highs in the 80s and 90s combined with winds gusting up to 60 mph and relative humidity readings in the teens to spark several large fires across the state. Tens of thousands of acres were burned, including a 22,000 acre fire in Okmulgee and Okfuskee counties and a 17,000 acre fire in Harper County. The fire danger remained high through the month's final day.

## February 2016 Statewide Extremes

| Description | Extreme | Station | Day |
|---|---|---|---|
| High Temperature | 91°F | Buffalo | 18 |
| Low Temperature | 2°F | Kenton | 3 |
| High Precipitation | 3.39 in. | Idabel | -- |
| Low Precipitation | 0.09 in. | Boise City | -- |

## February 2016 Statewide Statistics

Temperature

| | Average | Depart. | Rank (1895-2016) |
|---|---|---|---|
| Month (February) | 47.2°F | 5.1°F | 9th Warmest |
| Season-to-Date (Dec-Feb) | 43.3°F | 3.8°F | 4th Warmest |
| Year-to-Year (Jan-Feb) | 42.5°F | 2.7°F | 19th Warmest |

Precipitation

| | Total | Depart. | Rank (1895-2016) |
|---|---|---|---|
| Month (February) | 1.13 in. | -0.70 in. | 47th Driest |
| Season-to-Date (Dec-Feb) | 6.99 in. | 1.54 in. | 15th Wettest |
| Year-to-Year (Jan-Feb) | 1.66 in. | -1.73 in. | 21st Driest |

Depart. = departure from 30-year normal

## FEBRUARY 2016 DAILY SUMMARIES

**FEBRUARY 1-3:** February started with unseasonably warm temperatures just before acclimating with a cooling trend. The highest temperature measurements in the state, which occurred in southeast Oklahoma, decreased from 71 degrees to 52 degrees during this period. The coolest maximum temperatures fell from the upper 30s to the low 30s. The warmest minimum temperatures fell from the mid-40s to the low 30s and the coolest minimum temperatures plummeted from 21 degrees on the 1st and 2nd to 2 degrees on the 3rd. Showers and thunderstorms developed from an approaching low pressure system on the 1st and 2nd. The widespread rain caused many areas to receive a quarter to an inch of rain. The highest daily rainfall measurements on the 1st and 2nd were 1.12 inches in El Reno and .65 inches in Hectorville. With cooler temperatures on the 3rd, an estimated 1 inch of snow fell in Cimarron County. The highest daily average wind speeds were 15mph on the 1st and 3rd, and a breezy 24mph on the 2nd. Peak wind gusts were as high as 56mph in Ninnekah and Tipton (Feb. 1), 47mph in Boise City (Feb. 2), and 39mph in May Ranch (Feb. 2).

**FEBRUARY 4-7:** Despite a weak cold front in the region, temperatures managed to rebound from the previous cooling trend. The highest maximum temperatures climbed into the mid-60s and the lowest maximum temperatures climbed into the low 50s. The highest minimum temperatures in Oklahoma reached into the upper 30s by the 7th, and the lowest minimum temperatures made it to the upper teens. The passing front caused some light rain in the panhandle and northern Oklahoma on the 4th and 5th and in southern Oklahoma on the 6th. Although precipitation amounts were generally less than a tenth of an inch, Durant measured .36 inches, Lane measured .21 inches, and Tishomingo measured .16 inches on the 6th. The highest average wind speeds in the state were 11-17mph.

**FEBRUARY 8-10:** Cold air advection from the northwest caused temperatures to cool on the 8th. During the following two days, however, temperatures increased yet again. The highest temperature increased from 56 degrees in the southwest to 84 degrees in Butler over the three day span. The lowest maximum temperature recorded increased from 43 degrees to 54 degrees in the northeast. The highest minimum temperatures ranged between 32 and 39 degrees and the lowest minimum temperatures, which all occurred in the panhandle, ranged from 15 to 20 degrees. Even with a frontal boundary entering the state on the 10th, skies remained rain-free. The highest daily average wind speeds gradually decreased from 24mph on the 8th to 16mph on the 9th and 10th.

**FEBRUARY 11-13:** Temperatures were fairly consistent during these three days. Maximum highs were in the 70s and minimum highs were in the upper 40s. Similarly consistent, maximum lows were in the upper 30s to mid-40s and minimum low temperatures were in the upper teens and low 20s. Rainfall played hooky yet again. The highest daily average wind speeds were 12-17mph with the windiest day occurring on the 13th.

**FEBRUARY 14-15:** A cold front passed through on the 14th and light rain returned to south-central and southeast Oklahoma on the 15th. Highs were between 42 (Cookson and Sallisaw) and 68 degrees (Burneyville) on the 14th, and between 60 (Westville and Cookson) and 71 degrees (Mangum) on the 15th. The highest minimum temperatures were in the mid-upper 40s and the lowest minimum temperatures were in the mid-20s. The highest amount of precipitation was .43 inches in Idabel on the 15th. All other rain gauges measured less than a tenth of an inch. Daily average wind speeds were less than 13mph.

**FEBRUARY 16-18:** There was a slight cool down on the 16th, but it was short-lived as another warming trend ensued. Skies were mainly sunny and the warmest reported temperatures in Oklahoma increased from 69 degrees in Valliant to 91 degrees in Buffalo. The lowest maximum temperatures increased from 53 degrees to 72 degrees. The highest minimum temperature was 46 degrees on the 16th, 40 degrees on the 17th, and 55 degrees on the 18th. The lowest minimum temperatures were between 23 (Hooker on the 17th) and 33 degrees (Wister on the 18th). Oklahoma City tied its 1986 daily high temperature record on the 18th with 78 degrees. The highest daily average wind speeds gradually increased from 16mph on the 16th to 17mph on the 17th and a gusty 27mph on the 18th. The combination of warm temperatures, low relative humidity, and high wind speeds caused a number of fires on the 18th with Buffalo reporting the largest acreage burned.

**FEBRUARY 19-20:** Skies were once again rain-free despite a warm front passing through on the 19th and a cold front passing through on the 20th. The warmest temperatures measured climbed from 79 degrees in Burneyville on the 19th to 86 degrees in Altus on the 20th. The coolest maximum temperatures were in the mid-upper 60s. The highest minimum temperatures were in the low 60s and the lowest minimum temperature was 36 degrees in Hooker and Kenton on the 19th and 31 degrees again in Kenton on the 20th. Tulsa broke its daily high temperature record on the 19th with 78 degrees. Daily average wind speeds were less than 14mph.

**FEBRUARY 21-23:** A cold front stretched across the state and caused a cooling trend to ensue. The highest maximum temperature decreased from 73 degrees in Sallisaw on the 21st to 55 degrees in Freedom on the 23rd. The lowest maximum temperature fell from 53 degrees in the panhandle to 44 degrees in the south and southeast. The highest minimum temperature plummeted from 59 degrees to 42 degrees and the lowest minimum temperatures

remained in the low 20s. Rain fell in southern Oklahoma on the 22nd and 23rd with the highest accumulations occurring in south-central and southeast OK. The highest daily rainfall amounts were 1.24 inches in Idabel on the 22nd and 2.15 inches in Wister on the 23rd. The highest average wind speed was 17mph on the 21st, 13mph on the 22nd, and 20mph on the 23rd.

**FEBRUARY 23-26:** Rain was absent from the picture from the 23rd through the 26th. The warmest temperatures recorded in the state fluctuated from the mid-upper 60s to the mid-50s every other day. The coolest maximum temperatures were in the mid-upper 40s from the 23rd-25th and in the mid-50s on the 26th. The warmest minimum temperatures decreased from 42 degrees in Walters on the 23rd to 30 degrees in Medicine Park, Oklahoma City North, and Grandville on the 26th. The coolest minimum temperatures fell from 23 degrees in Boise City to 15 degrees in Camargo and Buffalo. Average wind speeds were less than 20mph on the 23rd, less than 16mph on the 24th, less than 17mph on the 25th, and less than 15mph on the 26th.

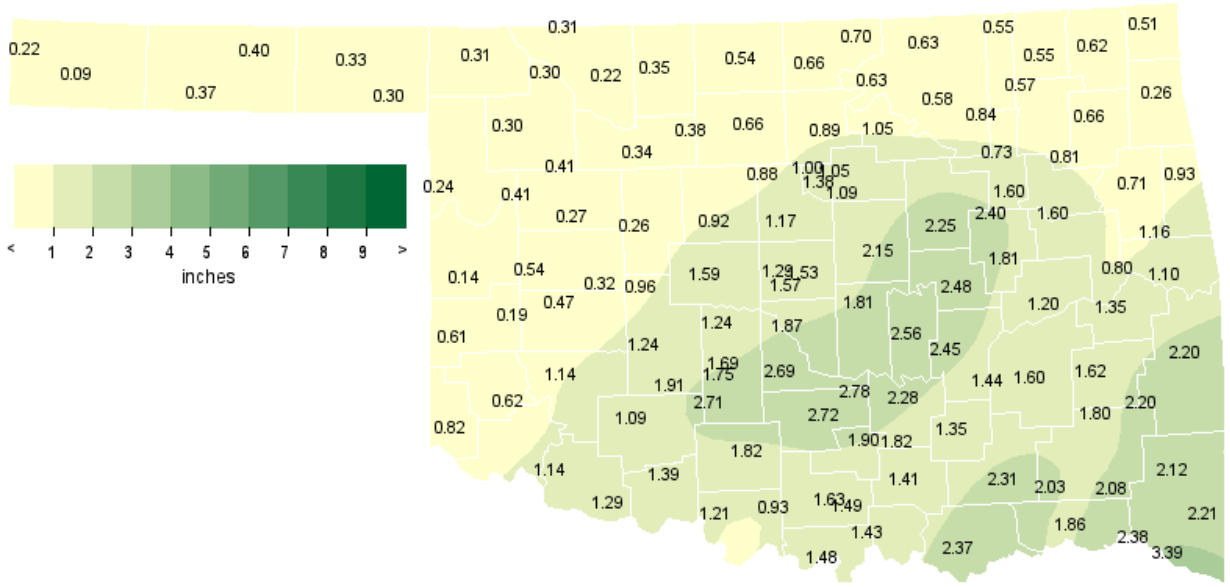
**FEBRUARY 27-28:** Clouds increased as a cold front moved in on the 28th. The highest maximum temperatures were in the upper 70s. The lowest maximum temperature slightly decreased from 67 degrees in Mt. Herman on the 27th to 62 degrees in Kenton on the 28th. The highest minimum temperatures actually managed to increase from 45 degrees to 54 degrees. And, similarly, the lowest minimum temperatures increased from 22 degrees to 29 degrees. Rainfall was negligible. Average wind speeds were 5-18mph each day. Freedom reported the highest wind gusts at 43mph on the 27th and 48mph on the 28th.

**FEBRUARY 29:** Skies were mainly clear on Leap Day until a line of storms moved into western Oklahoma that evening. Highs ranged from 70 degrees in Westville, Mt. Herman, Tahlequah, and Kenton to 80 degrees in Waurika. Lows ranged from 26 degrees in Camargo, Butler, and Buffalo to 46 degrees in Medicine Park and Sulphur. The top three rainfall accumulations occurred in Acme (1.09 inches), Apache (.73 inches), and Hectorville (.67 inches). Average wind speeds were 3-15mph. The highest wind gust was 50mph in Acme.

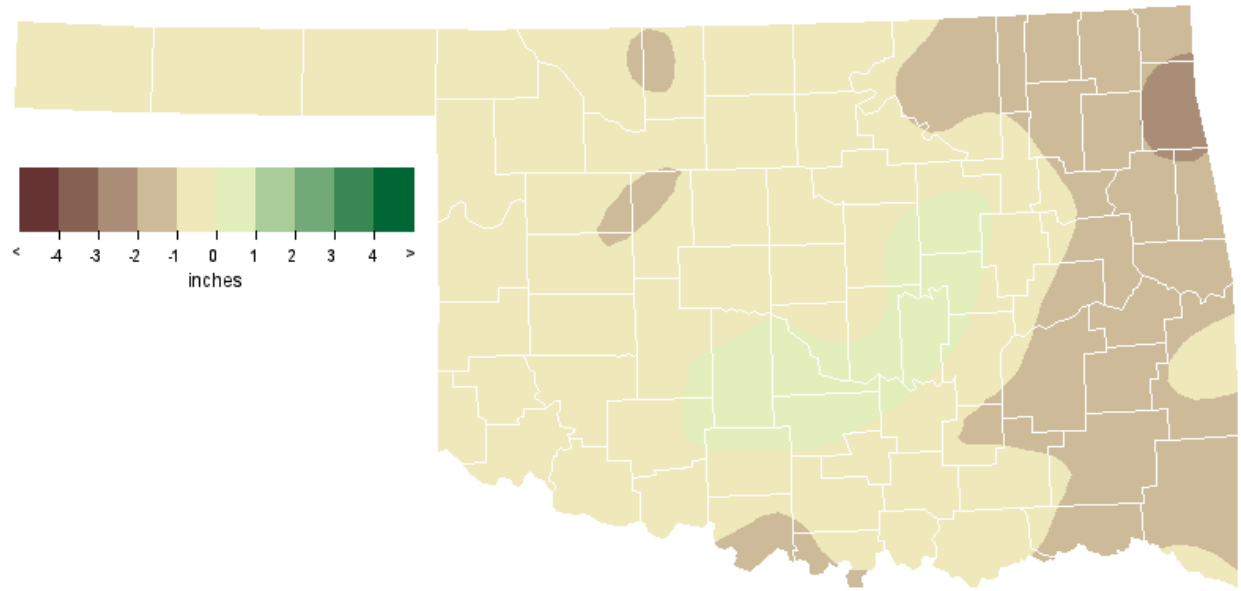
## FEBRUARY 2016 SEVERE WEATHER

No severe weather reported.

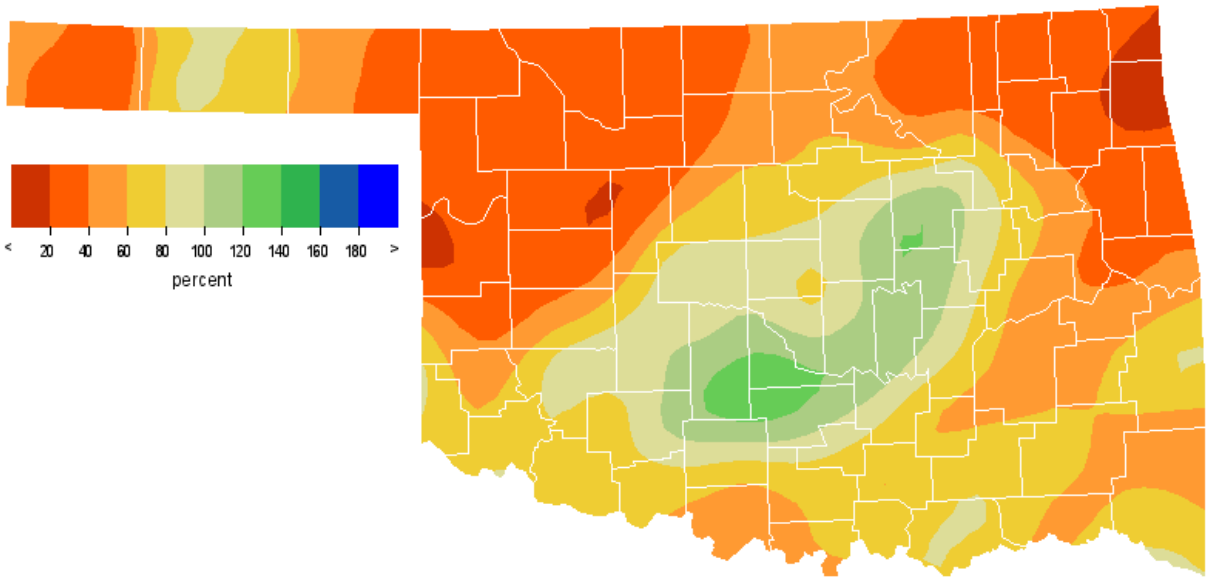
## FEBRUARY 2016 OBSERVED PRECIPITATION



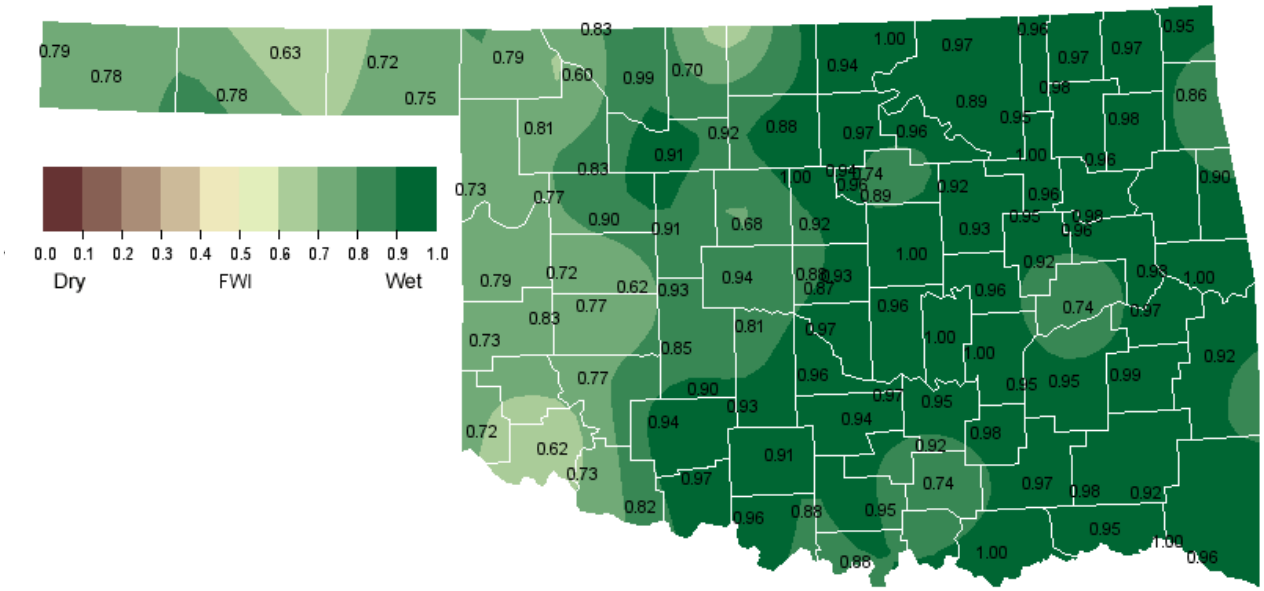

## FEBRUARY 2016 DEPARTURE FROM NORMAL PRECIPITATION



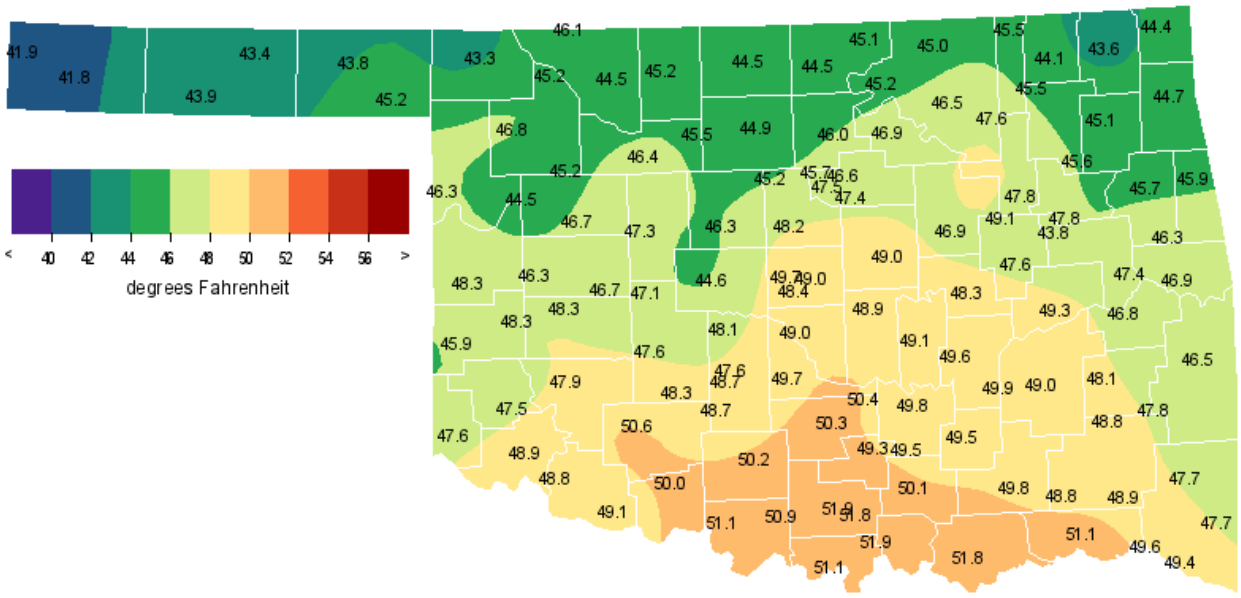
## FEBRUARY 2016 PERCENT OF NORMAL PRECIPITATION



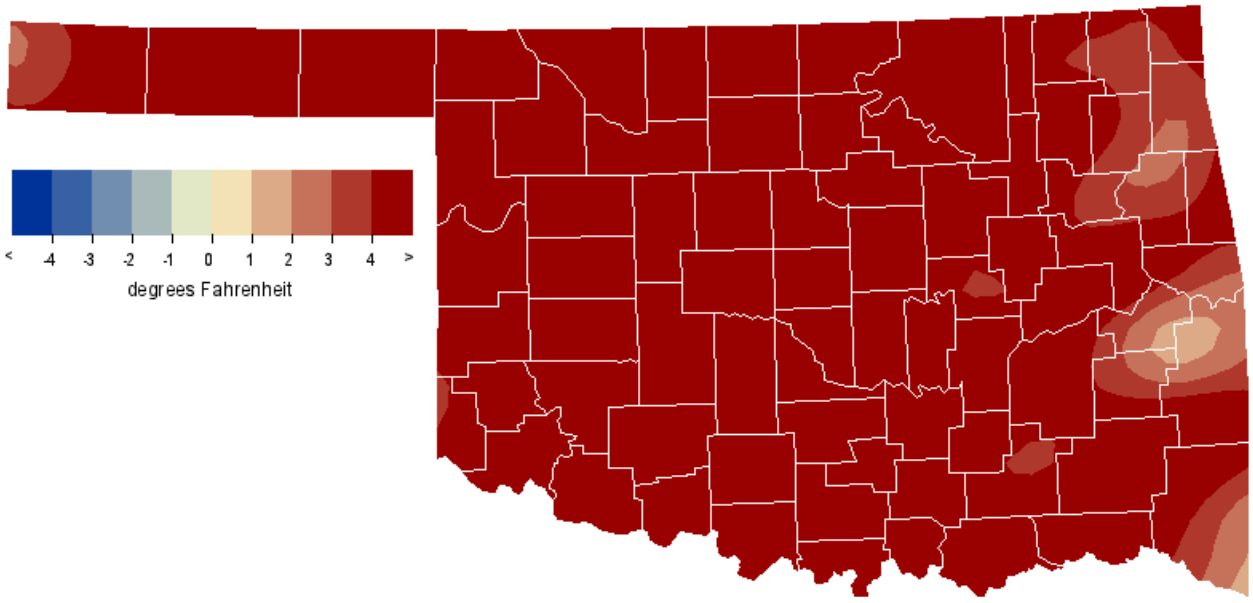

## FEBRUARY 2016 AVERAGE SOIL MOISTURE AT 25CM



## FEBRUARY 2016 AVERAGE TEMPERATURE




## FEBRUARY 2016 DEPARTURE FROM NORMAL TEMPERATURE

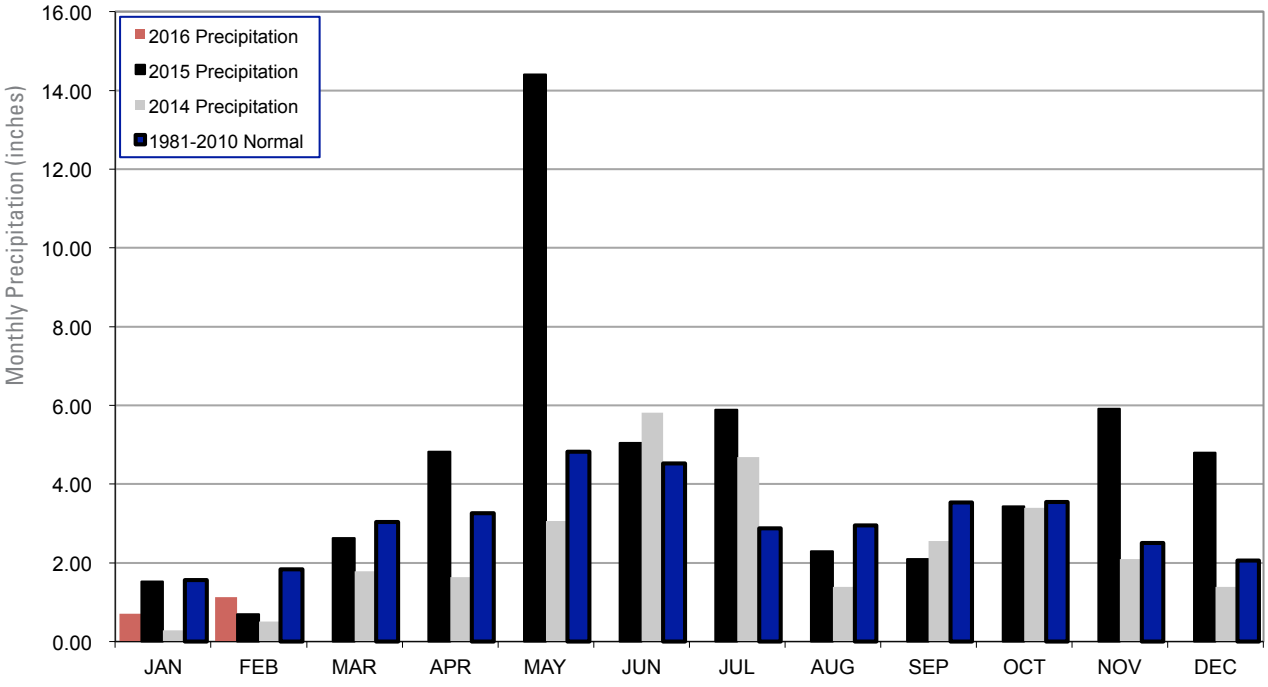


# MESONET MONTHLY SUMMARY FOR FEBRUARY 2016

| NAME | MEAN TEMP | HIGH TEMP | HIGH DAY | LOW TEMP | LOW DAY | HDD | CDD | TOT PPT | HIGH 24-HR | HIGH DAY |
|---|---|---|---|---|---|---|---|---|---|---|
| **PANHANDLE** | | | | | | | | | | |
| Arnett | 46.3 | 89 | 18 | 19 | 4 | 543 | 1 | .24 | .23 | 1 |
| Beaver | 43.9 | 90 | 18 | 14 | 4 | 618 | 5 | .33 | .29 | 1 |
| Boise City | 41.9 | 84 | 18 | 7 | 4 | 670 | 0 | .09 | .06 | 1 |
| Buffalo | 43.4 | 91 | 18 | 15 | 26 | 634 | 7 | .31 | .31 | 1 |
| **NORTH CENTRAL** | | | | | | | | | | |
| Alva | 44.4 | 81 | 10 | 19 | 26 | 597 | 0 | .22 | .21 | 1 |
| Blackwell | 44.5 | 77 | 18 | 16 | 26 | 595 | 0 | .66 | .49 | 1 |
| Breckinridge | 44.9 | 79 | 10 | 19 | 26 | 583 | 0 | .66 | .57 | 1 |
| Cherokee | 45.1 | 79 | 10 | 20 | 26 | 576 | 0 | .35 | .30 | 1 |
| Fairview | 46.4 | 82 | 10 | 22 | 26 | 539 | 0 | .34 | .33 | 1 |
| Freedom | 45.2 | 85 | 18 | 17 | 4 | 577 | 3 | .30 | .30 | 1 |
| Lahoma | 45.5 | 79 | 10 | 21 | 26 | 566 | 0 | .38 | .33 | 1 |
| **NORTHEAST** | | | | | | | | | | |
| Bixby | 47.7 | 81 | 20 | 23 | 26 | 503 | 2 | 1.60 | .67 | 23 |
| Burbank | 45.3 | 78 | 18 | 16 | 4 | 571 | 0 | .63 | .43 | 1 |
| Copan | 45.5 | 81 | 20 | 17 | 4 | 568 | 1 | .55 | .31 | 2 |
| Foraker | 44.9 | 80 | 20 | 16 | 4 | 582 | 0 | .63 | .28 | 1 |
| Inola | 45.5 | 79 | 20 | 17 | 4 | 564 | 0 | .81 | .43 | 23 |
| Jay | 44.8 | 75 | 18 | 15 | 4 | 587 | 0 | .26 | .19 | 23 |
| Miami | 44.4 | 78 | 20 | 18 | 4 | 598 | 1 | .51 | .35 | 23 |
| Nowata | 44.1 | 79 | 20 | 14 | 4 | 606 | 0 | .55 | .30 | 23 |
| **WEST CENTRAL** | | | | | | | | | | |
| Bessie | 48.4 | 82 | 20 | 20 | 4 | 482 | 0 | .47 | .28 | 1 |
| Butler | 46.3 | 84 | 10 | 16 | 4 | 542 | 1 | .54 | .29 | 29 |
| Camargo | 44.5 | 85 | 18 | 15 | 26 | 595 | 0 | .41 | .41 | 1 |
| Cheyenne | 48.3 | 85 | 18 | 21 | 3 | 487 | 2 | .14 | .08 | 1 |
| Elk City | 48.3 | 84 | 18 | 21 | 4 | 485 | 0 | .19 | .14 | 1 |
| **CENTRAL** | | | | | | | | | | |
| Acme | 48.7 | 82 | 20 | 20 | 4 | 478 | 6 | 2.71 | 1.21 | 23 |
| Bowlegs | 49.0 | 82 | 20 | 21 | 26 | 472 | 10 | 2.56 | 1.98 | 23 |
| Bristow | 46.9 | 83 | 20 | 17 | 4 | 529 | 4 | 2.25 | 1.05 | 23 |
| Lake Carl Blac | 45.7 | 78 | 18 | 17 | 26 | 560 | 0 | 1.00 | .71 | 1 |
| Chandler | 49.0 | 83 | 20 | 21 | 4 | 471 | 7 | 2.15 | 1.07 | 23 |
| Chickasha | 47.6 | 81 | 20 | 20 | 4 | 507 | 2 | 1.69 | .78 | 23 |
| El Reno | 46.2 | 81 | 20 | 20 | 4 | **** | **** | 1.59 | 1.12 | 1 |
| Guthrie | 48.2 | 78 | 20 | 20 | 4 | 489 | 1 | 1.17 | .88 | 1 |
| Kingfisher | 46.3 | 78 | 18 | 20 | 26 | 542 | 0 | .92 | .76 | 1 |
| Marena | 47.5 | 79 | 20 | 21 | 4 | 507 | 0 | 1.38 | 1.04 | 1 |
| Minco | 48.1 | 82 | 20 | 24 | 10 | 490 | 2 | 1.24 | .51 | 23 |
| Marshall | 45.2 | 77 | 18 | 17 | 26 | 574 | 0 | .88 | .70 | 1 |
| **EAST CENTRAL** | | | | | | | | | | |
| Cookson | 46.3 | 74 | 18 | 17 | 4 | 544 | 0 | 1.16 | .77 | 23 |
| Eufaula | 49.2 | 77 | 20 | 22 | 4 | 461 | 3 | 1.20 | 1.13 | 23 |
| Haskell | 47.1 | 79 | 20 | 21 | 10 | **** | **** | ***** | ***** | *** |
| Hectorville | 49.1 | 81 | 20 | 21 | 4 | 468 | 7 | 2.40 | 1.08 | 23 |
| Holdenville | 49.6 | 81 | 20 | 24 | 10 | 455 | 7 | 2.45 | 2.07 | 23 |
| McAlester | 48.9 | 76 | 20 | 18 | 4 | 471 | 5 | 1.60 | 1.57 | 23 |
| Okmulgee | 47.5 | 81 | 20 | 20 | 10 | 509 | 3 | 1.81 | 1.23 | 23 |
| **SOUTHWEST** | | | | | | | | | | |
| Altus | 48.9 | 86 | 20 | 24 | 3 | 467 | 0 | ***** | ***** | *** |
| Apache | 48.4 | 83 | 20 | 22 | 4 | 485 | 3 | 1.91 | .81 | 23 |
| Fort Cobb | 47.6 | 80 | 20 | 20 | 4 | 504 | 1 | 1.24 | .55 | 1 |
| Grandfield | 49.1 | 84 | 20 | 22 | 4 | 465 | 3 | 1.29 | .77 | 23 |
| Hinton | 47.0 | 79 | 20 | 23 | 4 | 522 | 0 | .96 | .80 | 1 |
| Hobart | 47.9 | 80 | 20 | 21 | 4 | 495 | 0 | 1.14 | .72 | 1 |
| **SOUTH CENTRAL** | | | | | | | | | | |
| Ada | 49.8 | 81 | 20 | 21 | 4 | 449 | 8 | 2.28 | 1.95 | 23 |
| Ardmore | 51.8 | 80 | 20 | 26 | 4 | 390 | 9 | 1.49 | 1.40 | 23 |
| Burneyville | 51.1 | 82 | 20 | 20 | 4 | 414 | 10 | 1.48 | 1.35 | 23 |
| Byars | 50.4 | 82 | 20 | 23 | 4 | 430 | 8 | 2.78 | 2.12 | 23 |
| Centrahoma | 49.5 | 78 | 20 | 18 | 4 | 455 | 6 | 1.35 | 1.34 | 23 |
| Durant | 51.8 | 77 | 20 | 23 | 4 | 389 | 6 | 2.37 | 1.94 | 23 |
| Fittstown | 49.6 | 79 | 20 | 21 | 4 | 452 | 5 | 1.82 | 1.82 | 23 |
| Ketchum Ranch | 50.2 | 81 | 20 | 24 | 4 | 435 | 6 | 1.82 | 1.24 | 23 |
| **SOUTHEAST** | | | | | | | | | | |
| Antlers | 48.7 | 75 | 18 | 20 | 5 | 472 | 1 | 2.03 | 1.80 | 23 |
| Broken Bow | 47.7 | 75 | 18 | 20 | 5 | 501 | 0 | 2.21 | 1.63 | 23 |
| Clayton | 48.8 | 75 | 29 | 20 | 5 | 469 | 0 | 1.80 | 1.73 | 23 |
| Cloudy | 48.9 | 74 | 18 | 23 | 5 | 466 | 0 | 2.08 | 1.61 | 23 |
| Hugo | 51.1 | 75 | 18 | 24 | 5 | 405 | 2 | 1.86 | 1.75 | 23 |
| Idabel | 49.4 | 75 | 18 | 22 | 5 | 452 | 0 | 3.39 | 1.72 | 23 |

| NAME | MEAN TEMP | HIGH TEMP | HIGH DAY | LOW TEMP | LOW DAY | HDD | CDD | TOT PPT | HIGH 24-HR | HIGH DAY |
|---|---|---|---|---|---|---|---|---|---|---|
| Goodwell | 43.9 | 86 | 18 | 16 | 3 | 613 | 2 | .37 | .26 | 1 |
| Hooker | 43.5 | 87 | 18 | 16 | 4 | 625 | 1 | .40 | .36 | 1 |
| Kenton | 41.9 | 84 | 18 | 2 | 3 | 671 | 0 | .22 | .10 | 4 |
| Slapout | 45.2 | 90 | 18 | 18 | 6 | 576 | 3 | .30 | .29 | 1 |
| May Ranch | 46.1 | 85 | 18 | 20 | 4 | 552 | 3 | .31 | .26 | 1 |
| Medford | 44.5 | 77 | 18 | 16 | 26 | 594 | 0 | .54 | .42 | 1 |
| Newkirk | 45.0 | 78 | 18 | 19 | 4 | 579 | 0 | .70 | .57 | 1 |
| Red Rock | 45.9 | 79 | 18 | 19 | 26 | 554 | 0 | .89 | .67 | 1 |
| Seiling | 45.1 | 81 | 10 | 16 | 4 | 576 | 0 | .41 | .40 | 1 |
| Woodward | 46.7 | 87 | 18 | 18 | 4 | 535 | 4 | .30 | .29 | 1 |
| Pawnee | 46.8 | 81 | 20 | 17 | 4 | 526 | 0 | 1.05 | .61 | 1 |
| Porter | 47.8 | 78 | 20 | 21 | 10 | 503 | 4 | 1.60 | .83 | 23 |
| Pryor | 45.1 | 78 | 20 | 16 | 4 | 578 | 1 | .66 | .41 | 23 |
| Skiatook | 47.6 | 82 | 20 | 19 | 4 | 510 | 6 | .84 | .54 | 23 |
| Talala | 45.5 | 81 | 20 | 16 | 4 | 566 | 2 | .57 | .35 | 23 |
| Tulsa | ***** | *** | *** | *** | *** | **** | **** | .73 | .58 | 23 |
| Vinita | 43.6 | 77 | 20 | 15 | 4 | 620 | 0 | .62 | .36 | 23 |
| Wynona | 46.6 | 83 | 20 | 17 | 4 | 536 | 1 | .58 | .32 | 23 |
| Erick | 46.0 | 85 | 18 | 17 | 4 | 551 | 0 | .61 | .39 | 29 |
| Putnam | 46.6 | 81 | 10 | 20 | 4 | 533 | 0 | .27 | .27 | 1 |
| Watonga | 47.4 | 80 | 10 | 21 | 4 | 512 | 0 | .26 | .26 | 1 |
| Weatherford | 46.7 | 79 | 20 | 18 | 4 | 530 | 0 | .32 | .29 | 1 |
| Ninnekah | 48.8 | 83 | 20 | 19 | 4 | 477 | 5 | 1.75 | .94 | 23 |
| Norman | 49.0 | 83 | 20 | 22 | 4 | 469 | 4 | 1.87 | .83 | 23 |
| Oilton | ***** | *** | *** | *** | *** | **** | **** | ***** | ***** | *** |
| OKC East | 48.5 | 83 | 20 | 24 | 26 | 483 | 4 | 1.57 | .62 | 23 |
| OKC North | 49.7 | 82 | 20 | 26 | 4 | 450 | 6 | 1.29 | .42 | 1 |
| Okemah | 48.3 | 81 | 20 | 18 | 4 | 493 | 8 | 2.48 | 1.68 | 23 |
| Perkins | 47.5 | 80 | 20 | 22 | 4 | 509 | 1 | 1.09 | .66 | 1 |
| Shawnee | 48.9 | 81 | 20 | 23 | 4 | 474 | 7 | 1.81 | 1.19 | 23 |
| Spencer | 49.1 | 83 | 20 | 23 | 4 | 468 | 6 | 1.53 | .72 | 23 |
| Stillwater | 46.5 | 79 | 20 | 20 | 26 | 536 | 0 | 1.05 | .71 | 1 |
| Washington | 49.6 | 84 | 20 | 23 | 4 | 453 | 8 | 2.69 | 1.25 | 23 |
| Sallisaw | 46.9 | 77 | 18 | 19 | 4 | 525 | 0 | 1.10 | 1.09 | 23 |
| Stigler | 46.8 | 76 | 18 | 19 | 4 | 529 | 0 | 1.35 | 1.33 | 23 |
| Stuart | 49.9 | 79 | 20 | 22 | 4 | 444 | 6 | 1.44 | 1.31 | 23 |
| Tahlequah | 45.7 | 74 | 18 | 17 | 4 | 560 | 0 | .71 | .42 | 23 |
| Webbers Falls | 47.4 | 77 | 18 | 20 | 10 | 509 | 0 | .80 | .74 | 23 |
| Westville | 45.8 | 74 | 18 | 18 | 10 | 556 | 0 | .93 | .60 | 23 |
| Hollis | 47.7 | 86 | 18 | 20 | 3 | 503 | 0 | .82 | .64 | 23 |
| Mangum | 47.5 | 86 | 18 | 18 | 26 | 508 | 0 | .62 | .36 | 23 |
| Medicine Park | 50.6 | 82 | 20 | 27 | 4 | 424 | 5 | 1.09 | .69 | 23 |
| Tipton | 48.8 | 85 | 20 | 24 | 4 | 470 | 1 | 1.14 | .79 | 23 |
| Walters | 50.0 | 82 | 20 | 22 | 4 | 440 | 4 | 1.39 | .72 | 23 |
| Lane | 49.7 | 75 | 20 | 22 | 5 | 447 | 4 | 2.31 | 2.06 | 23 |
| Madill | 51.8 | 78 | 20 | 22 | 4 | 390 | 8 | 1.43 | 1.38 | 23 |
| Newport | 51.9 | 81 | 20 | 26 | 4 | 388 | 8 | 1.63 | 1.56 | 23 |
| Pauls Valley | 50.3 | 83 | 20 | 24 | 4 | 434 | 7 | 2.72 | 1.71 | 23 |
| Ringling | 51.0 | 81 | 20 | 23 | 4 | 412 | 6 | .93 | .80 | 23 |
| Sulphur | 49.2 | 82 | 20 | 16 | 4 | 465 | 8 | 1.90 | 1.90 | 23 |
| Tishomingo | 50.1 | 78 | 20 | 22 | 26 | 437 | 5 | 1.41 | 1.24 | 23 |
| Waurika | 51.1 | 83 | 20 | 22 | 4 | 410 | 7 | 1.21 | .91 | 23 |
| Mt Herman | 47.7 | 73 | 18 | 21 | 4 | 502 | 0 | 2.12 | 1.54 | 23 |
| Talihina | 47.9 | 75 | 18 | 17 | 4 | 498 | 0 | 2.20 | 2.14 | 23 |
| Valliant | 49.6 | 75 | 18 | 21 | 5 | 448 | 0 | 2.38 | 1.86 | 23 |
| Wilburton | 48.1 | 76 | 29 | 19 | 4 | 491 | 0 | 1.62 | 1.61 | 23 |
| Wister | 46.5 | 77 | 18 | 18 | 10 | 536 | 0 | 2.20 | 2.15 | 23 |

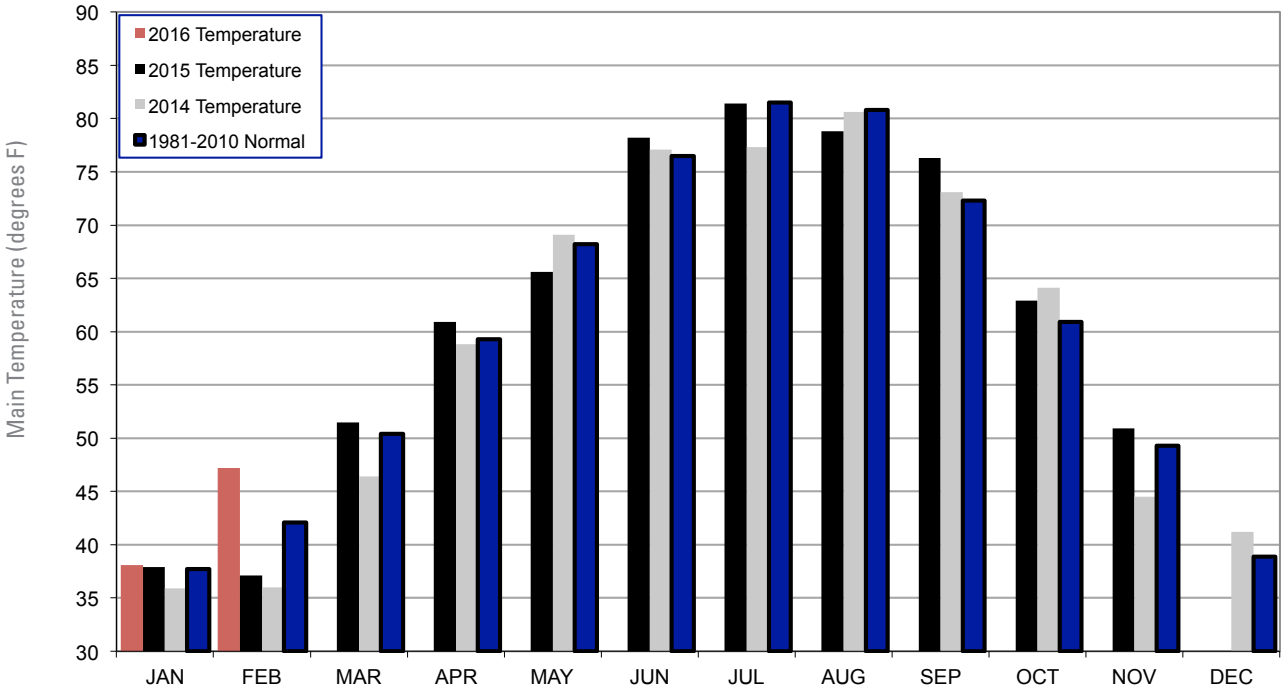
## 2014, 2015 AND 2016 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL




### February 2016 Mesonet Precipitation Comparison

| Climate Division | Precipitation (inches) | Departure from Normal (inches) | Rank since 1895 | Wettest on Record (Year) | Driest on Record (Year) | Feb-15 (inches) |
|---|---|---|---|---|---|---|
| Panhandle | 0.28 | -0.35 | 35th Driest | 2.95 (1911) | 0.00 (1904) | 0.71 |
| North Central | 0.47 | -0.82 | 32nd Driest | 3.97 (1911) | 0.01 (1904) | 0.95 |
| Northeast | 0.76 | -1.29 | 22nd Driest | 5.90 (1985) | 0.10 (1963) | 0.99 |
| West Central | 0.36 | -0.74 | 33rd Driest | 4.04 (2013) | 0.00 (1991) | 0.74 |
| Central | 1.67 | -0.14 | 45th Wettest | 4.91 (1938) | 0.04 (1947) | 1.04 |
| East Central | 1.41 | -1.17 | 40th Driest | 8.92 (1938) | 0.10 (1947) | 1.46 |
| Southwest | 1.16 | -0.23 | 51st Wettest | 3.68 (1997) | 0.01 (1916) | 0.59 |
| South Central | 1.81 | -0.58 | 60th Driest | 7.48 (1938) | 0.08 (1996) | 1.77 |
| Southeast | 2.17 | -1.20 | 43rd Driest | 9.53 (1945) | 0.34 (1895) | 2.48 |
| Statewide | 1.13 | -0.70 | 47th Driest | 4.57 (1938) | 0.18 (1996) | 1.18 |

## 2014, 2015 AND 2016 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL




### February 2016 Mesonet Temperature Comparison

| Climate Division | Average Temp (F) | Departure from Normal (F) | Rank since 1895 | Hottest on Record (Year) | Coldest on Record (Year) | Feb-15 (F) |
|---|---|---|---|---|---|---|
| Panhandle | 43.7 | 5.3 | 9th Warmest | 47.3 (1954) | 23.6 (1899) | 37.1 |
| North Central | 45.4 | 5.8 | 8th Warmest | 49.6 (1930) | 25.3 (1978) | 35.5 |
| Northeast | 45.7 | 5.0 | 11th Warmest | 49.4 (1976) | 25.5 (1905) | 34.4 |
| West Central | 46.9 | 5.8 | 8th Warmest | 50.9 (1954) | 26.2 (1905) | 38.1 |
| Central | 47.8 | 5.4 | 9th Warmest | 51.5 (1954) | 27.5 (1905) | 38.1 |
| East Central | 47.5 | 4.3 | 17th Warmest | 51.8 (1930) | 29.5 (1905) | 37.2 |
| Southwest | 48.5 | 4.9 | 12th Warmest | 52.4 (1954) | 28.0 (1905) | 40.5 |
| South Central | 50.6 | 5.3 | 9th Warmest | 54.3 (1976) | 30.3 (1899) | 40.8 |
| Southeast | 48.6 | 3.9 | 18th Warmest | 52.5 (1976) | 31.9 (1905) | 39.1 |
| Statewide | 47.2 | 5.1 | 9th Warmest | 50.6 (1954) | 27.6 (1905) | 37.8 |

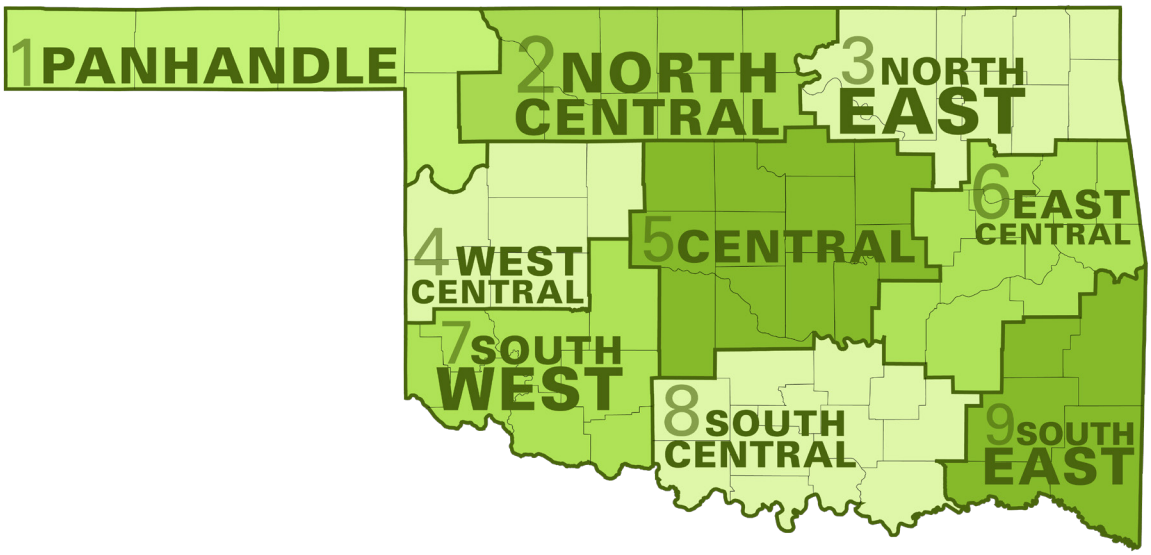
## RECORD EVENT REPORTS FEBRUARY 2016

| Description | Day | Location | Record | Previous Record | Year |
|---|---|---|---|---|---|
| Daily high temperature | 18 | Oklahoma City | 78 | 78 | 1986 |
| Daily high temperature | 19 | Tulsa | 78 | 77 | 2011 |

## MESONET EXTREMES FOR FEBRUARY 2016

| Climate Division | High Temp (F) | Day | Station | Low Temp (F) | Day | Station | High Monthly Rainfall (inches) | Station | High Daily Rainfall (inches) | Day | Station |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Panhandle | 91 | 18th | Buffalo | 2 | 3rd | Kenton | 0.40 | Hooker | 0.36 | 1st | Hooker |
| North Central | 87 | 18th | Woodward | 16 | 4th | Seiling | 0.89 | Red Rock | 0.67 | 1st | Red Rock |
| Northeast | 83 | 20th | Wynona | 14 | 4th | Nowata | 1.60 | Bixby | 0.83 | 23rd | Porter |
| West Central | 85 | 18th | Cheyenne | 15 | 26th | Camargo | 0.61 | Erick | 0.41 | 1st | Camargo |
| Central | 84 | 20th | Washington | 17 | 26th | Marshall | 2.71 | Acme | 1.98 | 23rd | Bowlegs |
| East Central | 81 | 20th | Hecktorville | 17 | 4th | Cookson | 2.45 | Holdenville | 2.07 | 23rd | Holdenville |
| Southwest | 86 | 18th | Magnum | 18 | 26th | Magnum | 1.91 | Apache | 0.81 | 23rd | Apache |
| South Central | 83 | 20th | Waurika | 16 | 4th | Sulphur | 2.78 | Byars | 2.12 | 23rd | Byars |
| Southeast | 77 | 18th | Wister | 17 | 4th | Talihina | 3.39 | Idabel | 2.15 | 23rd | Wister |
| Statewide | 91 | 18th | Buffalo | 2 | 3rd | Kenton | 3.39 | Idabel | 2.15 | 23rd | Wister |

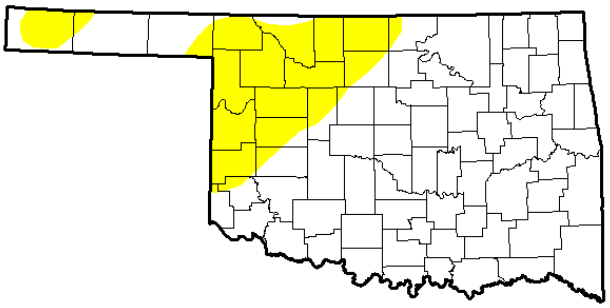
### Oklahoma Climate Divisions



# FEBRUARY 2016 DROUGHT MONITOR

***U.S. Drought Monitor***

## Oklahoma



**March 1, 2016**

*(Released Thursday, Mar. 3, 2016)*

Valid 7 a.m. EST

*Drought Conditions (Percent Area)*

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|---|---|---|---|---|---|---|
| **Current** | 78.72 | 21.28 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Last Week** 2/23/2016 | 98.99 | 1.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| **3 Months Ago** 12/1/2015 | 85.81 | 14.19 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Start of Calendar Year** 12/29/2015 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Start of Water Year** 9/29/2015 | 52.60 | 47.40 | 16.79 | 6.37 | 0.97 | 0.00 |
| **One Year Ago** 3/3/2015 | 1.48 | 98.52 | 65.55 | 47.81 | 28.29 | 5.75 |

*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:**
*David Miskus*
*NOAA/NWS/NCEP/CPC*

**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.

**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/

OKLAHOMA CLIMATOLOGICAL SURVEY

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