The heavy rains of spring continued right through the first week of July before finally giving way to a more typical summertime pattern. Rainfall totals during July were particularly excessive from south central through east central Oklahoma, with widespread amounts of 10-15 inches through that area. According to preliminary data from the Oklahoma Mesonet, the statewide average for the month was 5.89 inches, 3.01 inches above normal and the sixth wettest July since records began in 1895. East central and south central sections of the state were 6.44 inches and 4.04 inches above normal, respectively. Haskell led the

## July 2015 Statewide Extremes

| Description | Extreme | Station | Day |
| :--- | :---: | :--- | :---: |
| High Temperature | $108^{\circ} \mathrm{F}$ | Buffalo | 13 |
| Low Temperature | $52^{\circ} \mathrm{F}$ | Goodwell | 8 |
| High Precipitation | 15.47 in. | Haskell | -- |
| Low Precipitation | 0.16 in. | Altus | -- |

Mesonet with 15.05 inches during July, and seven other stations registered double-digit rainfall amounts. The Altus and Tipton Mesonet sites finished with less than an inch, the former receiving a paltry 0.16 inches. Idabel came in with a total of just 1.04 inches, more than 2.5 inches below normal for that location.

The 2015 calendar year is on pace to top 1957 as the wettest on record. The moisture in July brought the January-July rainfall total up to a statewide average of 34.73 inches, nearly 13 inches above normal and ranked as the wettest first seven months of the year on record. That tops the previous record holder's total of 34.17 inches set back in 1957, on its way to a record annual total of 47.88 inches. The Mesonet site at Tishomingo led the state over that period with 56.67 inches of precipitation. The annual average at Tishomingo is 44 inches. Many other stations across south central and east central Oklahoma have already surpassed their annual average in just the first seven months alone.

Although July's statewide average temperature was just a tad below normal at 81.4 degrees, the state still had plenty of hot, miserable weather. A large area of high pressure camped over the state for much of the second half of the month. That persistent summertime feature of the Southern

Plains provided ample sunshine and steered storms system up and around Oklahoma. Heat alerts were fairly common during the second half of the month with heat index values of 105-115 across much of the state. Vinita captured both the number one and two spot in the unbearable category with heat index readings of 118 degrees on the 24th and 116 degrees on the 19th. The 120 Mesonet stations registered a heat index of at least 110 degrees 169 times during July. A

July 2015 Statewide Statistics
Temperature

|  | Average | Depart. | Rank (1895-2015) |
| :--- | :---: | :---: | :--- |
| Month (July) | $81.4^{\circ} \mathrm{F}$ | $-0.1^{\circ} \mathrm{F}$ | 58th Warmest |
| Season-to-Date <br> (Jun-Jul) | $80.0^{\circ} \mathrm{F}$ | $1.0^{\circ} \mathrm{F}$ | 26th Coolest |
| Year-to-Date <br> (Jan-Jul) | $59.4^{\circ} \mathrm{F}$ | $-0.1^{\circ} \mathrm{F}$ | 53rd Warmest |


| Precipitation |  |  |  |
| :--- | :---: | :---: | :--- |
|  | Total | Depart. | Rank (1895-2015) |
| Month (July) | 5.89 in. | 3.01 in. | 6th Wettest |
| Season-to-Date <br> (Jun-Jul) | 10.67 in. | 3.27 in. | 9th Wettest |
| Year-to-Date <br> (Jan-Jul) | 34.73 in. | 12.82 in. | 1st Wettest |

Depart. = departure from 30-year normal
heat index of at least 105 degrees was recorded 930 times. The highest actual air temperature during the month was 108 degrees at Buffalo on the 13th. Arnett was held to a raincooled 68 degrees for the lowest maximum temperature. The lowest minimum temperature recorded was 52 degrees at three Panhandle stations on July 8. The January-July statewide average of 59.4 degrees was near normal and ranked that period as the 53 rd warmest on record.

## JULY 2015 DAILY SUMMARIES

JuLY 1: Conditions were hot and muggy with showers and thunderstorms in northwest and north-central OK. Three stations reported rainfall: Kenton with .70 inches, Boise City with .47 inches, and Medford with .10 inches. Highs ranged from 88 degrees in Westville to 104 degrees in Buffalo. Lows were between 66 degrees in Kenton and 79 degrees in Tulsa. Average wind speeds were between 5 and 17 mph .

JULY 2: Temperatures dropped as a cold front pushed in from the northwest and stalled. Storms developed over southern Oklahoma in the morning and then over northern Oklahoma by the afternoon. The storms caused a severe wind gust of 74 mph in Slapout, flooding in Edmond, and heavy rain in much of the state. Rainfall amounts ranged from a tenth of an inch to 3.47 inches in Guthrie. The rain-cooled air dropped the maximum temperature range down between 84 degrees in Kenton and 95 degrees in Lahoma. Minimum temperatures were similar to the previous day's with a range between 64 and 76 degrees. Daily average wind speeds were generally 5 to 13 mph .

JULY 3-4: Showers and strong thunderstorms continued over much of the state. The top three highest rainfall amounts on Friday were 5.57 inches in Sulphur, 3.50 inches in Pauls Valley, and 2.94 inches in Sallisaw; however, McAlester broke its daily maximum rainfall record with .98 inches that day. The top three rainfall amounts on Independence Day were 1.74 inches in Broken Bow, 1.24 inches in Antlers, and 1.24 inches in Cloudy. There were severe reports of flooding in Murray County on the 3rd and a 75 mph wind gust in Dover on the 4th. A cold front along the I-44 corridor had stalled on the 4th. The highest maximum temperature was 97 degrees on both days, first in Grandville and then in Altus. The lowest maximum temperature was 84 degrees in Cloudy and Mt. Herman on the 3rd and 80 degrees in Broken Bow on the 4th. The highest minimum temperatures were 74 and 73 degrees, and the lowest minimum temperature was 60 degrees on both days. Daily average wind speeds were less than 9 mph on Friday and less than 16 mph on the 4th of July.

JULY 5: The rain let off a bit with the highest 24 -hour rainfall amount only measuring . 16 inches in Foraker. Highs were between 89 degrees and 99 degrees, and lows were between 64 degrees and 75 degrees. Winds were $5-20 \mathrm{mph}$. July 6-8: A cooling trend ensued as a cold front moved in from the northwest and caused showers and thunderstorms. The highest rainfall amounts each day were 3.57 inches in Watonga, 4.63 inches in Grandville, and 4.99 inches in Stuart, respectively. Flooding was reported in Woods and Custer County on the 6th; Hughes, Comanche, Cherokee, Okmulgee, McIntosh, Adair, and Muskogee County on the 7th; and again in Muskogee County on the 8th. The National Weather Service posted a preliminary report of an EF-1 tornado in LeFlore County on the 7th. The highest maximum temperatures dropped from 99 degrees in Freedom to 87 degrees in Idabel and the lowest maximum temperatures dropped from 78 degrees to 70 degrees during this three day stretch. The highest minimum temperatures were in the mid-70s and the coolest temperatures in the state decreased from 64 degrees in Boise City to 52 degrees in the panhandle. Tulsa, McAlester, and Bartlesville broke their daily low maximum temperature records on the 8th at 74, 78 , and 76 degrees, respectively. The highest daily average
wind speeds in the state decreased from 19 mph on the 6 th, to 15 mph on the 7 th , and 9 mph on the 8 th .

JULY 9: Although showers and thunderstorms continued, temperatures warmed ever so slightly. Highs were between 71 degrees in Jay and 91 degrees in Idabel. Lows were between 55 degrees in Kenton and 74 degrees in Madill and Durant. Over 2 inches of rain fell in north-central and northeast Oklahoma, flooding was reported in Mayes and Delaware County, and preliminary reports of an EF-1 tornado were called in from Cherokee and Adair County. Average wind speeds were less than 11 mph .

JULY 10-13: Apart for some scattered showers and light thunderstorms in northwest and north-central OK on the 10th, this four day period was fairly dry. The warmest temperatures in the state climbed from 93 degrees in Wister on the 10th to a scorching 108 degrees in Buffalo on the 13th. The lowest maximum temperatures increased from 86 degrees to 92 degrees. The warmest minimum temperatures were in the mid-upper 70s and the lowest minimum temperatures were in the low-mid 60s. As temperatures and heat indices soared, heat advisories were issued for many portions of Oklahoma from the 11th-13th. Daily average wind speeds were generally less than 16 mph . July 14-16: There was a very minor cooling trend as high maximum temperatures dropped from 103 degrees in Altus to 101 degrees in the west. The lowest maximum temperatures were primarily in the low 90s. The highest minimum temperatures fell from 80 degrees to 77 degrees and the coolest temperatures reported were 63 and 64 degrees. An excessive heat warning was in effect in northcentral OK on the 14th with heat indices between 110-115 degrees. Light showers passed through the panhandle on the 14th and 15th and the northwest on the 16th. Rainfall amounts were miniscule. The highest daily average wind speeds were $11 \mathrm{mph}, 13 \mathrm{mph}$, and 16 mph each consecutive day.

JULY 17-20: This period was hot and rainy with a few thunderstorms. The highest maximum temperatures were consistently over 100 degrees. The warmest Mesonet site was Buffalo at 106 degrees on the 18th. The lowest maximum temperatures were generally in the low 90s. The highest minimum temperatures were in the upper 70s and the lowest minimum temperatures were in the lowmid 60s. Although each day received rainfall, the 17th and 20th were much wetter. The top ranked Mesonet sites for rainfall each day were Medford with 1.16 inches on the 17th, Goodwell with .39 inches on the 18th, Boise City with .20 inches on the 19th, and Erick with 1.78 inches on the 20th. Flooding was reported at 3 NW Weatherford on Monday. Daily average wind speeds were less than 16mph (Friday), 18mph (Saturday), 14mph (Sunday), and 11 mph (Monday). There were a few wind gusts in the 50s every day during this period, except on the 19th.

JULY 21-24: Showers and thunderstorms were once again the name of the game. With the rain-cooled air, the highest temperature in the state only reached 98 degrees on the 21st. The following days, however, had maximum highs shoot back up into the low 100s. The lowest maximum temperatures increased from 77 degrees to 93 degrees. The highest minimum temperatures were in the upper 70s and the lowest minimum temperatures were in the low-mid 60s. Although storms started to die out by the 23rd, not a single day escaped rain-free. As much as 5.14 inches fell in Buffalo on the 21st, 2.75 inches in Beaver on the 22nd, 2.06 inches in Blackwell on the 23rd, and .41 inches in Boise City on the 24th. Oklahoma City broke a daily rainfall record with 1.96 inches on the 21 st. Daily average wind speeds were less than 12 mph with a peak wind gust of 88 mph in Newkirk on the 21 st .

JULY 25-27: Showers and thunderstorms produced less than an inch of rain in most areas they passed over. The highest rainfall measurements ranged between . 05 inches at Kenton on the 27th and .78 inches at May Ranch on the 26th. Highs ranged from the low 90s to the low 100s. Lows were between 63 and 80 degrees. Daily average wind speeds were less than 13 mph on the 25 th, less than 14 mph on the 26 th, and less than 17 mph on the 27 th.

JULY 28-29: A few storms brought isolated amounts of rainfall to northwest Oklahoma. Goodwell measured 1.42 inches of rain on the 28th, while the rest of the state remained dry. Some storms continued on the 29th, leaving a tenth of an inch to .67 inches (Elk City) of rain in its wake. A weak cold front that had stalled in western OK on the 29th was barely noticeable as the highest maximum temperature was 104 degrees in Freedom and Buffalo on the 28th and 103 degrees in Talihina on the 29th. The lowest maximum temperatures were between 84 and 88 degrees. Minimum temperatures were between 61 degrees (Kenton on the 29th) and 80 degrees (Tulsa and Buffalo on the 28th). Daily average wind speeds were less than 16 mph on the 28 th and less than 14 mph on the 29 th . Hollis reported a 64 mph wind gust on Wednesday.

JULY 30-31: The month of July ended with a shallow decline in temperatures due to a passing cold front and a good soaking of rain. Showers and thunderstorms passed over northern Oklahoma and the eastern one-third of Oklahoma on the 30th. Those storms continued over central, northwest, and southwest Oklahoma on the 31st. The Mesonet sites that received the heaviest amounts of rainfall were Slapout ( 2.57 inches), May Ranch (2.28 inches), and Cookson (1.86 inches) on the 30th, and Boise City ( 4.29 inches), Minco ( 2.00 inches), and Ninnekah (1.93 inches) on the 31st. The warmest highs fell from 102 degrees in Talihina to 98 degrees in Altus. The lowest maximum temperature was 80 degrees both days. Minimum temperatures were between 63 and 76 degrees. Daily average temperatures were less than 12 mph on the 30th and less than 10 mph on the 31st. The highest wind gusts were 53 mph in Elk City and Grandville on the last day of the month.

## JULY 2015 SEVERE WEATHER

Flooding

| Location | County | Day |
| :--- | :--- | :--- |
| Edmond | Oklahoma | 2 |
| 5 NE Edmond | Oklahoma | 2 |
| Sulphur | Murray | 3 |
| Davis | Murray | 3 |
| Waynoka | Woods | 6 |
| Clinton | Custer | 6 |
| Holdenville | Hughes | 7 |
| 3 W Lawton | Comanche | 7 |
| 3 S Tahlequah | Cherokee | 7 |
| 3 SE Henryetta | Okmulgee | 7 |
| Checotah | McIntosh | 7 |
| 1 S Christie | Adair | 7 |
| Muskogee | Muskogee | 7 |
| S Muskogee | Muskogee | 8 |
| Locust Grove | Mayes | 9 |
| Pryor | Mayes | 9 |
| Jay | Delaware | Custer |
| 3 NW Weatherford |  |  |

Wind Gusts (70 mph or greater)

| Speed <br> (m.p.h) | Location | County | Day |
| :---: | :--- | :--- | :--- |
| 74 | 8 W Slapout | Beaver | 2 |
| 75 | 2 NW Dover | Kingfisher | 4 |

## JULYT 2015 OBSERVED PRECIPITATION



## JULY 2015 DEPARTURE FROM NORMAL PRECIPITATION



## JULY 2015 PERCENT OF NORMAL PRECIPITATION



## JULY 2015 AVERAGE SOIL MOISTURE AT 25CM



## JULY 2015 AVERAGE TEMPERATURE



## JULY 2015 DEPARTURE FROM NORMAL TEMPERATURE



## MESONET MONTHLY SUMMARY FOR JULY 2015

| NAME | MEAN TEMP | $\begin{aligned} & \text { HIGH } \\ & \text { TEMP } \end{aligned}$ | DAY | LOW TEMP | DAY | HDD | CDD | $\begin{aligned} & \text { TOT } \\ & \text { PPT } \end{aligned}$ | HIGH $24-H R$ | DAY | NAME | MEAN TEMP | $\begin{aligned} & \text { HIGH } \\ & \text { TEMP } \end{aligned}$ | DAY | LOW TEMP | DAY | HDD | CDD | $\begin{aligned} & \text { TOT } \\ & \text { PPT } \end{aligned}$ | $\begin{aligned} & \text { HIGH } \\ & 24-H R \end{aligned}$ | DAY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PANHANDLE |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Arnett | 80.0 | 101 | 13 | 58 | 8 | 2 | 466 | 4.50 | 1.13 | 7 | Goodwe 11 | 79.7 | 105 | 18 | 52 | 8 | 0 | 456 | 4.11 | 1.42 | 28 |
| Beaver | 79.8 | 101 | 13 | 52 | 8 | 0 | 459 | 6.78 | 2.75 | 22 | Hooker | 80.7 | 105 | 13 | 52 | 8 | 0 | 485 | 2.14 | . 57 | 22 |
| Boise City | 77.4 | 99 | 27 | 56 | 8 | 0 | 385 | 8.90 | 4.29 | 31 | Kenton | 76.8 | 100 | 27 | 55 | 9 | 0 | 367 | 4.26 | 1.52 | 9 |
| Buffalo | 83.4 | 108 | 13 | 59 | 8 | 0 | 571 | 8.37 | 5.14 | 21 | Slapout | ***** | *** | *** | *** | *** | **** | **** | 6.41 | 2.57 | 30 |
| NORTH CENTRAL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Alva | 82.1 | 101 | 13 | 59 | 7 | 0 | 529 | 7.00 | 1.49 | 30 | May Ranch | 81.8 | 105 | 13 | 59 | 7 | 1 | 521 | 5.05 | 2.28 | 30 |
| Blackwel1 | 81.5 | 101 | 1 | 63 | 7 | 0 | 511 | 6.47 | 2.43 | 6 | Medford | 82.4 | 102 | 1 | 63 | 8 | 0 | 540 | 7.73 | 2.94 | 6 |
| Breckinridge | 82.2 | 100 | 13 | 63 | 8 | 0 | 534 | 6.24 | 2.48 | 6 | Newkirk | 80.9 | 98 | 1 | 62 | 7 | 0 | 492 | 8.67 | 3.97 | 21 |
| Cherokee | 83.2 | 103 | 28 | 61 |  | 0 | 563 | 5.51 | 1.66 | 30 | Red Rock | 81.8 | 98 | 24 | 63 | 8 | 0 | 520 | 8.68 | 3.37 | 6 |
| Fairview | 82.7 | 101 | 28 | 60 | 8 | 0 | 548 | 8.80 | 3.09 | 2 | Seiling | 81.6 | 100 | 28 | 59 | 7 | 0 | 513 | 4.35 | 1.39 | 2 |
| Freedom | 82.4 | 106 | 13 | 58 | 7 | 1 | 540 | 3.33 | 1.03 | 7 | Woodward | 45.9 | 101 | 13 | *** | 28 | 2 | 471 | 3.38 | . 84 | 6 |
| Lahoma | 82.0 | 103 | 19 | 62 | 8 | 0 | 527 | 6.44 | 2.73 | 6 |  |  |  |  |  |  |  |  |  |  |  |
| NORTHEAST |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bixby | 82.9 | 98 | 14 | 67 |  | 0 | 554 | 7.16 | 1.50 | 20 | Pawnee | 81.1 | 96 | 24 | 64 | 8 | 0 | 500 | 6.01 | 2.13 | 21 |
| Burbank | 80.3 | 95 | 24 | 63 | 8 | 0 | 474 | 6.31 | 2.82 | 6 | Porter | 81.4 | 95 | 29 | 67 | 7 | 0 | 509 | 13.03 | 2.74 | 21 |
| Copan | 80.9 | 96 | 24 | 64 | 7 | 0 | 493 | 4.15 | 1.42 | 8 | Pryor | 81.5 | 95 | 20 | 66 | 7 | 0 | 510 | 5.49 | 2.59 | 9 |
| Foraker | 79.7 | 95 | 24 | 62 | 7 | 0 | 456 | 4.64 | 2.28 | 6 | Skiatook | 46.4 | 95 | 24 | *** | 29 | 0 | 485 | 5.46 | 2.05 | 9 |
| Inola | 81.4 | 95 | 24 | 66 | 7 | 0 | 509 | 7.02 | 2.00 | 9 | Talala | 80.9 | 96 | 24 | 65 | 7 | 0 | 492 | 5.88 | 1.98 | 8 |
| Jay | 80.0 | 94 | 24 | 63 | 31 | 0 | 464 | 8.18 | 3.21 | 9 | Tulsa | 83.1 | 97 | 24 | 66 | 7 | 0 | 561 | 6.87 | 2.07 | 8 |
| Miami | 80.8 | 95 | 24 | 65 | 31 | **** | **** | 5.66 | 3.58 | 8 | Vinita | 79.8 | 94 | 29 | 65 | 7 | **** | **** | 5.59 | 1.98 | 21 |
| Nowata | 81.0 | 95 | 24 | 64 | 4 | 0 | 495 | 7.28 | 2.48 | 8 | Wynona | 81.1 | 96 | 24 | 64 | 8 | 0 | 500 | 6.25 | 1.81 | 9 |
| WEST CENTRAL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bessie | 82.2 | 101 | 26 | 60 | 8 | 0 | 534 | 3.83 | 1.79 | 6 | Erick | 80.4 | 99 | 20 | 61 | 8 | 0 | 477 | 5.23 | 1.78 | 20 |
| Butler | 80.8 | 100 | 28 | 60 | 8 | 0 | 489 | 5.16 | 2.64 | 6 | Putnam | 80.7 | 97 | 28 | 58 | 8 | 0 | 487 | 2.61 | 1.33 | 6 |
| Camargo | 80.0 | 98 | 13 | 59 | 8 | 0 | 465 | 7.96 | 3.02 | 21 | Watonga | 81.5 | 100 | 28 | 60 | 8 | 0 | 511 | 5.70 | 3.57 | 6 |
| Cheyenne | 79.4 | 96 | 28 | 58 | 8 | 1 | 446 | 5.55 | 2.40 | 6 | Weatherford | 82.0 | 99 | 13 | 61 | 8 | 0 | 528 | 5.12 | 2.20 | 6 |
| Elk City | 80.9 | 101 | 28 | 60 | 8 | 0 | 492 | 5.41 | 2.57 | 6 |  |  |  |  |  |  |  |  |  |  |  |
| CENTRAL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Acme | 81.6 | 97 | 29 | 64 | 8 | 0 | 514 | 3.82 | 1.82 | 7 | Ninnekah | 82.2 | 99 | 20 | 65 | 8 | 0 | 534 | 5.44 | 1.93 | 31 |
| Bowlegs | 81.2 | 95 | 20 | 67 | 4 | **** | **** | 5.98 | 3.48 | 7 | Norman | 81.9 | 99 | 20 | 65 | 8 | 0 | 522 | 7.46 | 2.61 | 3 |
| Bristow | 80.7 | 96 | 20 | 66 | 8 | 0 | 487 | 8.11 | 4.02 | 21 | 0ilton | 81.3 | 96 | 20 | 65 | 8 | 0 | 506 | 6.90 | 1.67 | 9 |
| Lake Carl Blac | 81.7 | 97 | 24 | 64 | 8 | 0 | 516 | 3.77 | 1.23 | 7 | OKC East | 82.4 | 98 | 20 | 64 | 8 | 0 | 539 | 6.02 | 1.68 | 2 |
| Chandler | 81.3 | 96 | 20 | 65 | 8 | 0 | 506 | 4.13 | 1.57 | 7 | OKC North | 82.8 | 97 | 14 | 64 | 8 | 0 | 551 | 6.22 | 2.51 | 2 |
| Chickasha | 82.7 | 100 | 20 | 65 | 8 | 0 | 549 | 3.98 | . 93 | 31 | Okemah | 81.3 | 96 | 20 | 68 | 8 | 0 | 507 | 9.77 | 3.23 | 7 |
| E1 Reno | 80.5 | 97 | 20 | 62 | 8 | 0 | 480 | 5.84 | 2.35 | 6 | Perkins | 82.6 | 99 | 24 | 64 | 8 | 0 | 546 | 3.87 | 1.32 | 9 |
| Guthrie | 82.3 | 99 | 19 | 64 | 8 | 0 | 536 | 8.63 | 3.47 | 2 | Shawnee | 82.2 | 97 | 20 | 65 | 8 | 0 | 532 | 7.79 | 3.41 | 21 |
| Kingfisher | 83.0 | 101 | 19 | 63 | 8 | 0 | 559 | 5.33 | 1.54 | 6 | Spencer | 81.7 | 96 | 20 | 64 | 8 | 0 | 517 | 5.52 | 2.45 | 21 |
| Marena | 81.4 | 98 | 24 | 64 | 8 | 0 | 509 | 3.00 | 1.01 | 6 | Stillwater | 82.4 | 98 | 24 | 64 | 8 | 0 | 539 | 3.83 | 1.63 | 6 |
| Minco | 81.0 | 98 | 20 | 63 | 8 | 0 | 495 | 5.74 | 2.00 | 31 | Washington | 80.4 | 96 | 20 | 66 | 8 | 0 | 478 | 8.42 | 4.23 | 21 |
| Marshal 1 | 82.5 | 99 | 14 | 64 | 8 | **** | **** | 5.63 | 1.84 | 6 |  |  |  |  |  |  |  |  |  |  |  |
| EAST CENTRAL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cookson | 80.5 | 94 | 27 | 64 | 4 | 0 | 480 | 14.66 | 4.98 | 21 | Sallisaw | 82.3 | 98 | 28 | 67 | 4 | 0 | 536 | 7.66 | 2.94 | 3 |
| Eufaula | 82.3 | 95 | 27 | 70 | 4 | 0 | 536 | 8.37 | 2.70 | 8 | Stigler | 82.2 | 97 | 27 | 68 | 4 | 0 | 534 | 7.59 | 2.43 | 7 |
| Haskel 1 | 46.8 | 97 | 14 | *** | 23 | 0 | 496 | 15.47 | 3.76 | 21 | Stuart | 82.1 | 97 | 29 | 67 | 3 | 0 | 529 | 8.18 | 4.99 | 8 |
| Hectorville | 81.4 | 94 | 24 | 66 | 7 | **** | **** | 9.54 | 2.64 | 21 | Tahlequah | 80.8 | 95 | 14 | 66 | 4 | 0 | 490 | 12.28 | 3.12 | 21 |
| Holdenville | 81.6 | 95 | 29 | 68 | 4 | **** | **** | 8.80 | 3.73 | 7 | Webbers Falls | 83.5 | 98 | 14 | 70 | 3 | 0 | 574 | 6.04 | 1.44 | 8 |
| McAlester | 82.2 | 98 | 29 | 68 | 4 | 0 | 533 | 4.48 | 1.53 | 8 | Westville | 80.2 | 93 | 20 | 66 | 4 | 0 | 471 | 9.13 | 2.67 | 7 |
| Okmulgee | 81.5 | 95 | 14 | 68 | 7 | 0 | 510 | 13.45 | 4.39 | 21 |  |  |  |  |  |  |  |  |  |  |  |
| SOUTHWEST |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Altus | 84.4 | 104 | 13 | 64 | 8 | 0 | 602 | . 16 | . 06 | 9 | Hollis | 82.9 | 102 | 28 | 63 | 8 | 0 | 555 | 4.36 | 2.14 | 6 |
| Apache | 81.0 | 98 | 29 | 63 | 8 | 0 | 497 | 2.57 | 1.05 | 31 | Mangum | 82.1 | 101 | 26 | 62 | 8 | 0 | 531 | 3.05 | 2.31 | 6 |
| Fort Cobb | 82.8 | 101 | 20 | 63 | 8 | 0 | 550 | 4.00 | 1.80 | 6 | Medicine Park | 82.6 | 100 | 29 | 63 | 8 | 0 | 544 | 2.11 | 1.34 | 7 |
| Grandfield | 84.3 | 101 | 29 | 66 | 8 | 0 | 597 | 9.12 | 4.63 | 7 | Tipton | 85.0 | 103 | 26 | 64 | 8 | 0 | 619 | 1.30 | . 71 | 3 |
| Hinton | 81.1 | 99 | 24 | 61 | 8 | 0 | 500 | 3.89 | 2.10 | 6 | Walters | 82.5 | 99 | 30 | 66 | 8 | 0 | 543 | 3.56 | 1.68 | 7 |
| Hobart | 83.1 | 102 | 26 | 61 | 8 | 0 | 563 | 2.89 | . 97 | 20 |  |  |  |  |  |  |  |  |  |  |  |
| SOUTH CENTRAL |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ada | 82.5 | 97 | 30 | 69 | 8 | 0 | 541 | 9.73 | 3.97 | 7 | Lane | 82.1 | 100 | 30 | 69 | 29 | 0 | 530 | 1.98 | 1.01 | 3 |
| Ardmore | 84.0 | 99 | 30 | 70 | 3 | 0 | 588 | 8.53 | 4.66 | 8 | Madi 11 | 83.2 | 99 | 30 | 70 | 10 | 0 | 564 | 4.09 | 2.34 | 8 |
| Burneyville | 82.9 | 99 | 30 | 67 | 26 | 0 | 556 | 5.98 | 3.00 | 8 | Newport | 82.4 | 99 | 30 | 68 | 8 | 0 | 541 | 5.75 | 3.14 | 8 |
| Byars | 81.6 | 95 | 29 | 67 | 3 | 0 | 514 | 11.39 | 3.94 | 7 | Pauls Valley | 82.3 | 97 | 29 | 67 | 8 | 0 | 535 | 10.38 | 4.56 | 7 |
| Centrahoma | 81.8 | 97 | 30 | 69 | 4 | 0 | 521 | 6.90 | 4.15 | 8 | Ringling | 82.4 | 99 | 30 | 67 | 8 | 0 | 540 | 4.05 | 1.41 | 7 |
| Durant | 82.9 | 99 | 30 | 71 | 16 | 0 | 554 | 4.16 | 2.03 | 8 | Sulphur | 81.8 | 98 | 30 | 67 | 3 | 0 | 521 | 12.90 | 5.57 | 3 |
| Fittstown | 80.9 | 99 | 30 | 67 | 3 | 0 | 492 | 7.48 | 4.31 | 8 | Tishomingo | 81.8 | 100 | 30 | 68 | 3 | 0 | 522 | 8.38 | 4.71 | 8 |
| Ketchum Ranch | 82.3 | 98 | 30 | 66 | 8 | 0 | 537 | 3.07 | 2.04 | 7 | Waurika | 83.1 | 101 | 30 | 67 | 8 | 0 | 560 | 3.89 | 2.66 | 7 |
| SOUTHEAST |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Antlers | 81.1 | 99 | 30 | 67 | 11 | 0 | 499 | 3.17 | 1.24 | 4 | Idabe 1 | 83.0 | 100 | 30 | 69 | 31 | 0 | 557 | 1.04 | . 55 | 4 |
| Broken Bow | 81.3 | 99 | 29 | 67 | 31 | 0 | 505 | 2.71 | 1.74 | 4 | Mt Herman | 81.7 | 99 | 25 | 68 | 4 | 0 | 519 | 1.45 | . 43 | 3 |
| Clayton | 83.4 | 100 | 27 | 70 | 3 | 0 | 571 | 1.93 | 1.13 | 8 | Talihina | 83.3 | 103 | 29 | 67 | 5 | 0 | 568 | 1.44 | . 91 | 8 |
| Cloudy | 81.0 | 97 | 29 | 68 | 31 | 0 | 496 | 3.75 | 1.24 | 4 | Wilburton | 82.8 | 100 | 27 | 69 | 4 | 0 | 552 | 2.46 | . 75 | 8 |
| Hugo | 83.5 | 100 | 30 | 71 | 5 | 0 | 575 | 2.68 | . 91 | 3 | Wister | 82.7 | 102 | 29 | 68 | 10 | 0 | 549 | 4.30 | 1.78 | 30 |

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


July 2015 Mesonet Precipitation Comparison

| Climate Division | Precipitation <br> (inches) | Departure from <br> Normal (inches) | Rank since 1895 |  |  |  |  | Wettest on Record <br> (Year) | Driest on <br> Record (Year) | Jul-14 |
| :--- | :---: | :---: | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| Panhandle | 5.68 | 3.11 | 7th Wettest | $8.81(1950)$ | $0.44(1983)$ | 3.59 |  |  |  |  |
| North Central | 6.28 | 3.47 | 4th Wettest | $8.59(1950)$ | $0.12(1983)$ | 4.16 |  |  |  |  |
| Northeast | 6.56 | 3.18 | 11th Wettest | $9.52(1959)$ | $0.28(1946)$ | 3.58 |  |  |  |  |
| West Central | 5.39 | 3.13 | 3rd Wettest | $7.63(1950)$ | $0.04(1983)$ | 3.68 |  |  |  |  |
| Central | 5.95 | 3.11 | 9th Wettest | $9.61(1950)$ | $0.16(1980)$ | 4.95 |  |  |  |  |
| East Central | 9.73 | 6.44 | 2nd Wettest | $10.03(1950)$ | $0.36(1993)$ | 5.61 |  |  |  |  |
| Southwest | 3.26 | 0.99 | 30th Wettest | $6.60(1950)$ | $0.03(1980)$ | 3.47 |  |  |  |  |
| South Central | 6.79 | 4.04 | 5th Wettest | $8.46(1950)$ | $0.11(1998)$ | 5.31 |  |  |  |  |
| Southeast | 2.49 | -1.13 | 43rd Driest | $12.47(1950)$ | $0.19(1993)$ | 6.93 |  |  |  |  |
| Statewide | 5.89 | 3.01 | 6th Wettest | $9.07(1950)$ | $0.42(1980)$ | 4.57 |  |  |  |  |

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


July 2015 Mesonet Temperature Comparison

| Climate Division | Average <br> Temp (F) | Departure from Normal (F) | Rank since 1895 | Hottest on Record (Year) | Coldest on Record (Year) | Jul-14 (F) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Panhandle | 79.7 | 0.4 | 54th Warmest | 86.0 (1934) | 72.8 (1906) | 77.0 |
| North Central | 81.7 | -0.1 | 58th Warmest | 89.6 (2011) | 75.9 (1950) | 77.4 |
| Northeast | 80.6 | -0.2 | 51st Coolest | 89.3 (1954) | 75.4 (1950) | 76.2 |
| West Central | 80.9 | -0.9 | 48th Coolest | 89.6 (2011) | 75.9 (1906) | 78.3 |
| Central | 81.6 | -0.3 | 53rd Coolest | 90.2 (2011) | 76.7 (1950) | 78.6 |
| East Central | 81.1 | -0.1 | 54th Coolest | 88.9 (2011) | 76.2 (1906) | 76.6 |
| Southwest | 82.7 | -0.5 | 56th Coolest | 91.7 (2011) | 78.0 (1908) | 80.5 |
| South Central | 82.4 | -0.1 | 57th Coolest | 90.5 (2011) | 77.9 (1950) | 79.3 |
| Southeast | 82.4 | 2.0 | 27th Warmest | 87.5 (2011) | 76.1 (1905) | 76.8 |
| Statewide | 81.4 | -0.1 | 58th Warmest | 89.2 (2011) | 76.4 (1906) | 77.9 |

## RECORD EVENT REPORTS JULY 2015



## MESONET EXTREMES FOR JULY 2015

| Climate Division | High Temp (F) | Day | Station | Low (F) | Day | Station | High Monthly Rainfall (inches) | Station | High Daily Rainfall (inches) | Day | Station |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Panhandle | 108 | 13th | Buffalo | 52 | 8th | Goodwell | 8.90 | Boise City | 5.14 | 21st | Buffalo |
| North Central | 106 | 13th | Freedom | 58 | 7th | Woodward | 8.80 | Fairview | 3.97 | 21st | Newkirk |
| Northeast | 98 | 14th | Bixby | 62 | 7th | Foraker | 13.03 | Porter | 3.58 | 8th | Miami |
| West Central | 101 | 26th | Bessie | 58 | 8th | Putnam | 7.96 | Camargo | 3.57 | 6th | Watonga |
| Central | 101 | 19th | Kingfisher | 62 | 8th | El Reno | 9.77 | Okemah | 4.23 | 21st | Washington |
| East Central | 98 | 14th | Webbers Falls | 64 | 4th | Cookson | 15.47 | Haskell | 4.99 | 8th | Stuart |
| Southwest | 104 | 13th | Altus | 61 | 8th | Hinton | 9.12 | Grandfield | 4.63 | 7th | Grandfield |
| South Central | 101 | 30th | Waurika | 66 | 8th | Ketchum Ranch | 12.90 | Sulphur | 5.57 | 3rd | Sulphur |
| Southeast | 103 | 29th | Talihina | 67 | 31st | Broken Bow | 4.30 | Wister | 1.78 | 30th | Wister |
| Statewide | 108 | 13th | Buffalo | 52 | 8th | Goodwell | 15.47 | Haskell | 5.57 | 3rd | Sulphur |

## Oklahoma Climate Divisions



## U.S. Drought Monitor Oklahoma



August 4, 2015
(Released Thursday, Aug. 6, 2015) Valid 8 a.m. EDT

Drought Conditions (Percent Area)

|  | Drought Conditions (Percent Area) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
| Current | 98.66 | 1.34 | 0.00 | 0.00 | 0.00 | 0.00 |
| Last Week 7282015 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| $\begin{gathered} 3 \text { Months Ago } \\ 55 / 2015 \end{gathered}$ | 29.24 | 70.76 | 59.05 | 46.19 | 17.95 | 4.03 |
| $\begin{gathered} \text { Start of } \\ \text { Calendar Year } \\ 12302014 \\ \hline \end{gathered}$ | 25.63 | 74.37 | 62.03 | 40.84 | 21.74 | 5.70 |
| $\begin{gathered} \text { Start of } \\ \text { Water Year } \\ 930 / 2014 \\ \hline \end{gathered}$ | 8.55 | 91.45 | 73.31 | 58.13 | 20.92 | 4.64 |
| $\begin{gathered} \text { One Year Ago } \\ 85 / 2014 \end{gathered}$ | 16.50 | 83.50 | 72.56 | 48.08 | 16.74 | 2.63 |
| intensity. |  |  |  |  |  |  |
|  | ally Dry te Droug Drought | ht |  | Extrem <br> Excepti | e Drough <br> onal Drou |  |
| The Drought Monitor focuses on broac-scale condtions. Local conditions may vary. See accompanying text summany for forecast statements. |  |  |  |  |  |  |
| Author: <br> Mark Svoboda |  |  |  |  |  |  |

## USDA <br> $\because$


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/

## C OKLAHOMA CLIMATOLOGICAL SURVEY

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