#### Oklahoma Monthly Climate Summary

# **MARCH 2015**



It took nearly the entire month, but severe weather finally made a rather abrupt return to Oklahoma during the last week of March. Two separate storm systems brought severe winds, large hail and tornadoes after a hiatus filled mostly with winter weather headlines. On March 25, a combination of thunderstorm winds and an intermittent tornado that reached EF-2 in strength traveled through southwest Oklahoma City and Moore before dissipating in north Norman. The twister caused significant damage to Southgate Elementary in central Moore and the surrounding neighborhood. Seven injuries were reported with that storm. The worst news came with another EF-2 twister that struck near Sand Springs that same day, killing one resident and injuring 30 others. A weak EF-0 tornado was confirmed to have touched down in northeast Tulsa, damaging homes and businesses. The death near Sand Springs marks the first tornado related fatality in Oklahoma since one person was killed near Quapaw on April 27, 2014. Three other fatalities were attributed to the March 25 storms by the State Medical Examiner. One person died in a single-vehicle traffic accident in Norman and two others were drowned

#### **March 2015 Statewide Extremes**

Description	Extreme	Station	Day
High Temperature	85°F	Arnett	7
Low Temperature	1°F	Kenton	24
High Precipitation	9.29 in.	Broken Bow	
Low Precipitation	0.30 in.	Cheyenne	

by flash flood waters as they were swept off a bridge near Webbers Falls. Severe weather struck on the month's final day with large hail, damaging winds of over 80 mph and flash flooding from southwestern through east central Oklahoma. The Bowlegs Mesonet station in Seminole County reported 5.85 inches of rain in a 6-hour period. As mentioned previously, winter weather had a hand in March weather as well. A blanket of snow and sleet from 2-4 inches deep covered a good portion of the state on March 4, closing schools and creating hazardous driving conditions.

Oklahoma's other weather disaster, the ongoing multi-year drought, continued to intensify across western and northern Oklahoma, although some relief did occur in the southeast. According to preliminary data from the Oklahoma Mesonet,

the statewide average precipitation total was 2.63 inches, 0.41 inches below normal. That does not give an accurate picture of the moisture fortunes for the differing areas of the state, however. The southeast saw an average of nearly 6 inches, 1.45 inches above normal, to rank as the 17th wettest March on record for that area. The west central and north central regions experienced deficits greater than 1.5 inches each and ranked as the 33rd driest and 31st driest March on record for those areas, respectively. Broken Bow led the state with 9.29 inches while Cheyenne only managed 0.3 inches for the month. Most of the northwestern half of the state ended March with 60 percent to less than 20 percent of normal rainfall. The statewide average temperature was 51.5 degrees, more than a degree above normal to rank as the 41st warmest March on record. Hollis led all high temperatures in the state with 92 degrees recorded on the 25th. Tipton and Kingfisher reported the lowest readings at minus 1 degree on March 5.

Even with the generous moisture totals in the southeast, the month's final U.S. Drought Monitor report indicated nearly 51 percent of the state was in at least severe drought and 36 percent in extreme-to-exceptional drought. Both percentages are increases from February's final map.

#### **March 2015 Statewide Statistics**

Temperature

	Average	Depart.	Rank (1895-2015)
Month (March)	51.5°F	1.1°F	41st Warmest
Year-to-Date (Jan-Mar)	42.6°F	-0.8°F	56th Warmest

#### Precipitation

	Total	Depart.	Rank (1895-2015)
Month (March)	2.63 in.	-0.41 in.	51st Wettest
Year-to-Date (Jan-Mar)	4.90 in.	-1.53 in.	49th Driest

Depart. = departure from 30-year normal

#### **MARCH 2015 DAILY SUMMARIES**

MARCH 1-2: The highest temperatures in the state peaked at 43 degrees on both the 1st and 2nd in Broken Bow, Idabel, Arnett, and Talihina. The coolest high was 29 degrees in

Goodwell and Boise City on March 1st, followed by 34 degrees in May Ranch and Skiatook the following day. Minimum temperatures were between 18 degrees and 37 degrees. The maximum daily precipitation readings recorded by the Mesonet were .53 inches in Sallisaw on Sunday and .34 inches in McAlester on Monday. The highest daily average wind speeds were 9mph and 21mph each consecutive day.

MARCH 3-5: A cold front moved into northwest Oklahoma. Ahead of the front, the warmest highs reached 62 degrees in Bristow and Hollis. As the days proceeded, the warmest temperatures only made it into the low 50s. The lowest maximum temperatures fluctuated between 26 and 46 degrees. The highest minimum temperatures dropped from 39 to 24 degrees and the lowest minimums dropped drastically from 26 degrees in Boise City and Kenton to -1 degrees in Tipton and Kingfisher. Oklahoma City broke a daily minimum temperature record with 10 degrees on the 4th. That same day, light freezing drizzle fell in the northwest as temperatures dropped below freezing in many areas. Eventually, a wintry mix transitioned into snow, accumulating between 1 and 4 inches in most places. Oklahoma City also broke a daily maximum snowfall record with 3 inches that day. As the sky cleared on the 5th, much of the snow melted. Maximum liquid precipitation measurements from the Mesonet equaled .72 inches on the 3rd, 1.36 inches on the 4th, and .36 inches on the 5th. Daily average wind speeds were less than 19mph (March 3rd), 26mph (March 4th), and 11mph (March 5th).

MARCH 6-8: Temperatures rebounded from the cold front and warmed during this period. Maximum highs increased from 66 degrees in Buffalo on the 6th to 72 degrees in Alva, Seiling, and Freedom the following two days. Low maximums varied between 49 degrees on the 6th, 60 degrees on the 7th, and 48 degrees on the 8th. High minimums increased from 31 degrees to 48 degrees, and low minimums increased from 14 degrees to 29 degrees. Mesonet precipitation measurements were negligible on the 6th and 7th, and less than a tenth of an inch in southern portions of the state on the 8th. Average wind speeds were generally less than 15mph.

MARCH 9: Most areas in Oklahoma received much needed rainfall. With the rain and cloudy skies, temperatures were much cooler. Highs ranged from 48 degrees in the southeast half of the state to 66 degrees in Hooker. Lows ranged from 28 degrees in Kenton to 47 degrees in central and southwest OK. Rainfall amounts surpassed an inch in southern portions of the state with the highest amounts measuring 1.8 inches in Broken Bow and 1.85 inches in Idabel. Average wind speeds were light, measuring less than 8mph.

MARCH 10-12: Light rain ended by day-break on the 10th, just in time for dense fog to develop over northern and southeast OK. Fog redeveloped over southern, western, and central OK on the morning of the 11th and rain returned to eastern Oklahoma by the 12th. Maximum high temperatures were in the mid-upper 70s and the coolest highs were reported at 55 degrees on the 10th, 70 degrees on the 11th, and 60 degrees on the 12th. Minimum temperatures ranged from the upper 20s to the upper 40s. The most rain that fell during this period was .21 inches in Broken Bow on the 12th. The majority of the state had daily average wind speeds less than 10mph.

MARCH 13-15: A mid-level disturbance brought a decent chunk of rain to south-central and southeast Oklahoma on the 13th and 14th. As much as 2.44 inches fell in Broken Bow on the 13th and .78 inches in McAlester on the 14th. Although rain-cooled air dropped the warmest high temperature down to 71 degrees on the 14th, the warmest high temperatures remained in the 70s. The coolest high temperatures increased from 55 degrees to 64 degrees. The highest minimum temperature was 55 degrees each day. The lowest minimums dropped from 32 degrees in Boise City to 26 degrees in Hooker and Seiling. Daily average wind speeds were less than 17mph on the 13th, less than 16mph on the 14th, and less than 13mph on the 15th. The highest wind gusts were 42mph in Kenton on Friday, 37mph in McAlester on Saturday, and 34mph in Goodwell on Sunday.

MARCH 16-19: Temperatures were much cooler around Oklahoma as a cold front moved in overnight on the 16th and into the morning of the 17th. High maximum temperatures dropped from 91 degrees in Beaver to 65 degrees in Talihina over this four-day stretch. Low maximum temperatures decreased from 70 degrees to 44 degrees. The highest minimum temperatures were in the 50s and the lowest minimum temperatures were in the 30s. Fog blanketed portions of southeast OK on the 16th and much of the region on the 19th. Light showers started falling in the western half of the state on the 17th and spread through the eastern half on the 18th. As light rain continued to fall on the 19th, isolated strong-severe storms formed near the frontal boundary. The maximum amount of precipitation was about three-quarters of an inch (Antlers and Woodward) on the 18th and 19th. Wind speeds started off pretty breezy on the 16th and 17th, averaging 5-20mph. Dying down just a bit, average wind speeds were less than 11mph on the 18th and less than 14mph on the 19th.

MARCH 20-24: Despite a weak cool front on the 23rd, warm temperatures made a comeback during this period. The warmest temperatures in the state climbed from 68 degrees in Beaver and Talihina on the 20th to 87 degrees in Burneyville on the 24th. Temperatures remained warm as a warm front stalled in northern Oklahoma on the 23rd. McAlester managed to break a daily high temperature record with 83 degrees on the 24th. The coolest maximum temperatures increased from the 50s to the 70s. The warmest minimums increased from the low 50s to the low 60s and the coolest minimums remained in the 30s. Some showers fell on the

20th, accumulating as much as .67 inches in Idabel. A few brief showers continued to fall in southern OK on the 21st and 22nd before making way for clearer skies. Average wind speeds were less than 8mph on the 20th and 21st, less than 13mph on the 22nd, less than 17mph on the 23rd, and less than 15mph on the 24th. Pryor had a wind gust as high as 48mph on Tuesday.

MARCH 25: A cold front pushed into the region with warm temperatures ahead of it and cool temperatures behind. The front produced a large range in maximum temperature, measuring between 57 degrees in Kenton and 92 degrees in Hollis. Minimum temperatures were between 32 degrees in Kenton and 60 degrees in Hugo. The frontal boundary also caused rain and severe thunderstorms to stretch from southwest Oklahoma to northeast Oklahoma before moving east-northeast. Almost every type of severe weather event that could be associated with thunderstorms occurred that day. The highest amount of rain measured by the Mesonet was 2.07 inches in Tulsa, followed by 1.44 inches in Jay, and 1.25 inches in Bixby. Thus, flooding was reported in Tulsa and Pawnee Counties. Wind gusts over 70mph were reported in Canadian, Oklahoma, Pawnee, and Rogers County. There were reports of 2 inch diameter hail and greater in Payne, Canadian, Pawnee, Tulsa, Adair, Osage, and Delaware County with Tulsa measuring hail as big as 4.35 inches. That same day, four tornadoes occurred in the state of Oklahoma and two of them were significant with an EF-2 rating in Osage/Tulsa and Cleveland County.

MARCH 26-27: The cold front on the 25th produced much cooler temperatures the following two days. The highest maximum temperature was 68 degrees in Idabel and Beaver on the 26th, and 71 degrees in Kenton on the 27th. The coolest maximum temperatures were in the low 50s. Minimum temperatures ranged from 28 degrees in Beaver to 45 degrees in Newport and Medicine Park. Lingering rain from the previous day's storms fell in southeast Oklahoma, leaving as much as .69 inches in Broken Bow and .60 inches in Idabel. Skies were rain-free by the 27th. Average wind speeds were 5-18mph on the 26th and 5-12mph on the 27th.

MARCH 28-31: Even with a passing cold front, the maximum high temperatures were pretty consistent at the end of March, measuring in the 80s each day. The minimum high temperatures jumped from the low 60s on the 28th and 29th to the low 70s on the 30th and 31st. The warmest low temperatures increased from 49 degrees in Slapout on the 28th to 63 degrees in Clayton on the 31st. The coolest temperatures remained in the 30s all four days. A warm front that had advanced northward on the 31st caused morning fog followed by rain and isolated severe storms. Maximum rainfall amounts in the state measured a whopping 5.36 inches in Bowlegs. The next highest amounts of precipitation were 1.72 inches in Shawnee, 1.39 inches in El Reno, and 1.34 inches at the Oklahoma City West Mesonet site. Rainfall was less than one inch elsewhere. Severe storms produced hail over 2 inches in diameter in Seminole, Pottawatomie, Lincoln, and Okfuskee County. Although average wind speeds were less than 13mph on the 28th, less than 18mph on the 29th, less than 14mph on the 30th, and less than 12mph on the 31st, severe wind gusts over 70mph were reported on the last day of the month. Union City and Mustang measured just over 80mph wind gusts that day.

# **MARCH 2015 SEVERE WEATHER**

# **Significant Tornadoes (EF2 or greater)**

EF-rating	County	Day
2	Osage/Tulsa	25
2	Cleveland	25

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

Size (in.)	Location	County	Day
2.00	5 E Stillwater	Payne	25
2.00	Stillwater	Payne	25
2.75	8 SE Stillwater	Payne	25
2.00	4 SW El Reno	Canadian	25
2.50	4 SE Yukon	Canadian	25
2.50	4 SE Westport	Pawnee	25
4.25	Tulsa	Tulsa	25
2.50	Watts	Adair	25
2.00	2 NE Westport	Osage	25
2.00	1 W Sand Springs	Tulsa	25
3.00	Sand Springs	Tulsa	25
2.50	Kansas	Delaware	25
2.50	10 N Seminole	Seminole	31
2.75	2 N Bowlegs	Seminole	31
2.75	Bowlegs	Seminole	31
2.75	Shawnee	Pottawatomie	31
2.75	Meeker	Lincoln	31
2.50	1 SE Meeker	Lincoln	31
2.50	Welty	Okfuskee	31
2.50	1 SE Welty	Okfuskee	31

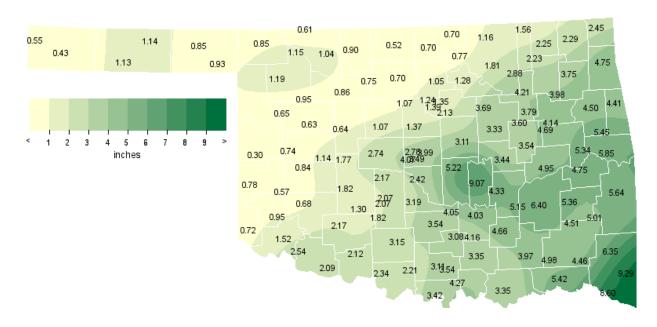
# Wind Gusts (70 mph or greater)

Speed (m.p.h)	Location	County	Day
73.00	3 S Mustang	Canadian	25
72.00	Will Rogers Airport	Oklahoma	25
80.00	4 SE Westport	Pawnee	25
80.00	2 W Catoosa	Rogers	25
81.00	Union City	Canadian	31
72.00	Mustang	Canadian	31
75.00	7 ESE Lawton	Comanche	31
82.00	Mustang	Canadian	31
84.00	Mustang	Canadian	31

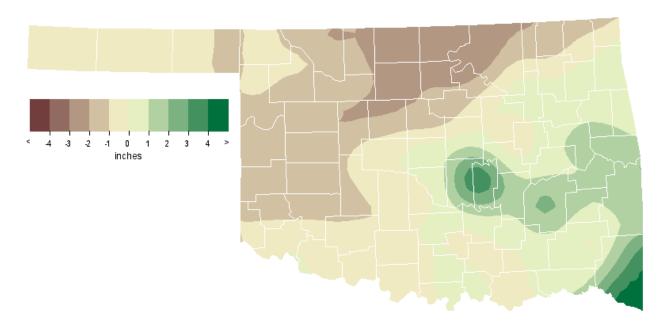
# **Flooding**

Location	County	Day
Tulsa	Tulsa	25
Cleveland	Pawnee	25
Broken Arrow	Tulsa	25

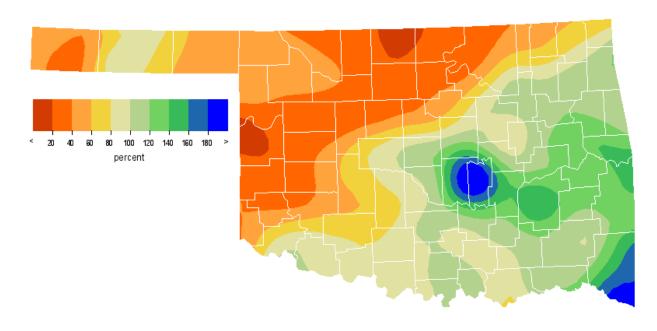
#### **MARCH 2015 OBSERVED PRECIPITATION**



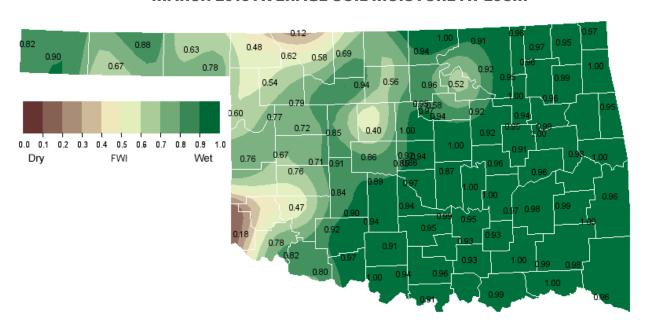
# **MARCH 2015 DEPARTURE FROM NORMAL PRECIPITATION**



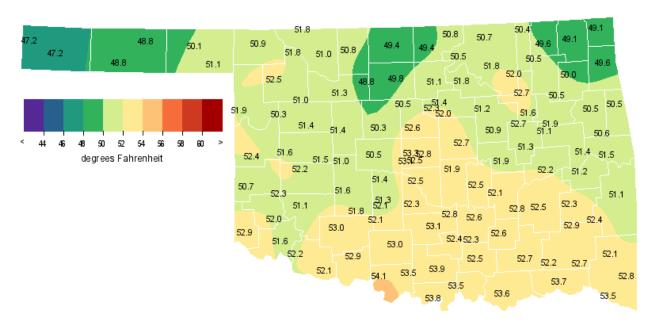
# **MARCH 2015 PERCENT OF NORMAL PRECIPITATION**



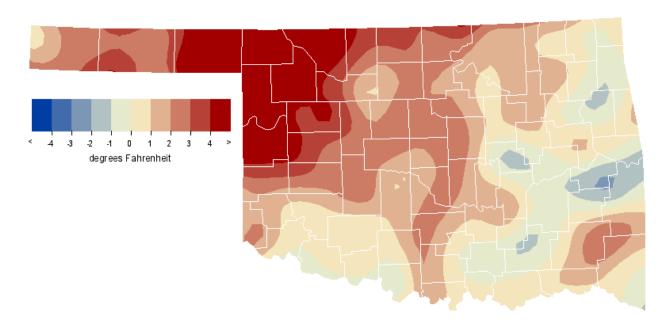
# **MARCH 2015 AVERAGE SOIL MOISTURE AT 25CM**



# **MARCH 2015 AVERAGE TEMPERATURE**



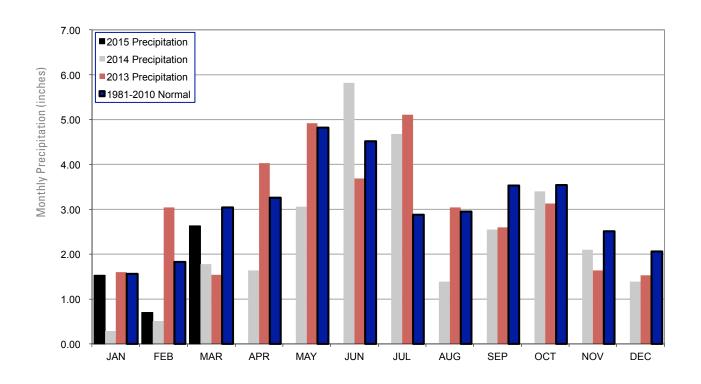
# **MARCH 2015 DEPARTURE FROM NORMAL TEMPERATURE**



# **MESONET MONTHLY SUMMARY FOR MARCH 2015**

NAME	MEAN TEMP		DAY	LOW TEMP	DAY	HDD	CDD		HIGH 24-HR	DAY	NAME	MEAN TEMP		DAY	LOW TEMP	DAY	HDD	CDD		HIGH 24-HR	DAY
PANHANDLE Arnett Beaver Boise City Buffalo	51.9 50.1 47.1 50.8	87 91 82 89	31 16 16 16	15 12 8 16	5 5 5 5	408 463 554 442	3 2 0 3	**** .85 .43 .85	**** .48 .22 .36	*** 19 19	Goodwell Hooker Kenton Slapout	48.8 48.8 47.2 51.2	86 88 82 89	16 16 16 16	14 3 5 15	5 5 5 5	501 501 553 430	0 0 0 2	1.13 1.14 .55 .93	.67 .40 .29	19 19 19
NORTH CENTRAL Alva Blackwell Breckinridge Cherokee Fairview Freedom Lahoma	51.0 49.4 49.9 50.8 51.4 51.9 16.6	87 85 85 86 85 88	16 31 31 31 31 16 31	14 6 7 17 14 13 ***	5 5 5 5 5 11	435 483 469 441 425 410 439	3 0 0 1 3 3	1.04 .70 .70 .90 .86 1.15	.51 .24 .33 .35 .53 .63	19 1 1 19 19 19	May Ranch Medford Newkirk Red Rock Seiling Woodward	51.8 49.4 50.8 51.1 51.0 52.5	88 85 85 86 85 86	16 31 31 31 16 16	18 12 13 8 8	5 5 5 5 5 5	413 482 444 432 434 391	3 0 2 2 1 4	.61 .52 .70 1.05 .95 1.19	.30 .23 .26 .28 .60	1 1 19 9 19
NORTHEAST Bixby Burbank Copan Foraker Inola Jay Miami Nowata	51.6 50.5 50.4 50.7 50.5 49.7 49.2 49.6	83 85 81 83 84 80 78	24 31 24 31 24 25 24 24	10 8 13 11 11 11 16 13	5 5 5 5 5 5 5 5	421 450 454 446 452 478 491 479	5 2 1 3 4 2 0	3.79 .77 1.56 1.16 3.98 4.75 2.45 2.25	1.25 .12 .41 .25 1.17 1.60 .55	25 13 25 13 13 13 13	Pawnee Porter Pryor Skiatook Talala Tulsa Vinita Wynona	51.8 51.9 50.0 52.0 50.5 52.7 49.2 51.7	86 84 82 82 81 82 80 84	31 24 24 31 24 31 24 31	10 15 12 16 15 18 15	5 5 5 5 5 5 5 5	416 418 467 410 452 392 491 417	6 11 2 8 2 12 0 6	1.28 4.14 3.75 2.88 2.23 4.21 2.29 1.81	.46 1.32 1.25 1.01 .79 2.07 .67	13 13 13 13 13 25 13
WEST CENTRAL Bessie Butler Camargo Cheyenne Erick	52.3 51.6 50.3 52.4 50.7	85 86 86 85 87	31 16 16 28 31	11 6 10 16 4	5 5 5 5 5	398 417 455 395 442	4 0 0 5 0	.84 .74 .65 .30	.37 .44 .44 .11	31 31 19 19	Putnam Retrop Watonga Weatherford	51.4 52.3 51.3 51.5	84 88 83 83	16 31 31 31	13 10 13 10	5 5 5 5	425 399 426 422	2 5 3 2	.63 .57 .64 1.14	.38 .14 .45 .65	19 5 19 31
CENTRAL Acme Bowlegs Bristow Lake Carl Blac Chandler Chickasha El Reno Guthrie Kingfisher Marena Minco Marshall	52.1 52.6 50.9 ***** 52.7 51.2 50.5 52.7 50.3 52.3 51.4 50.5	85 86 85 *** 87 88 83 87 86 87 84	31 31 31 *** 31 31 31 31 31 31	9 15 9 *** 14 3 4 11 -1 14 13 7	5 5 5 ** 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	408 397 439 **** 392 431 452 389 457 400 427 452	9 11 4 **** 11 4 2 7 2 6 6 2	1.82 9.07 3.33 1.24 3.11 2.07 2.74 1.37 1.07 1.39 2.17	.56 5.36 1.08 .41 .94 .64 1.39 .41 .44 .47 .61	9 31 13 9 25 9 31 9 31 9 25 9	Ninnekah Norman Oilton OKC East OKC North OKC West Okemah Perkins Shawnee Spencer Stillwater Washington	52.0 52.5 51.2 52.5 53.2 53.1 51.9 52.0 51.9 52.8 51.4 52.3	85 85 84 86 84 85 84 83 84 86	31 31 31 31 31 31 31 31 31 31	10 9 10 8 16 11 13 15 14 10 12	5 5 5 5 5 5 5 5 5 5 5	407 394 435 395 372 377 416 406 415 388 423 398	5 6 6 6 8 7 11 4 8 9 3	2.07 2.42 3.69 2.78 4.07 3.44 2.13 5.22 3.99 1.35 3.19	.67 .51 1.32 .90 .71 1.34 1.22 .50 1.72 1.02 .39 1.03	9 9 13 9 9 31 13 13 31 31 9
EAST CENTRAL Cookson Eufaula Haskell Hectorville Holdenville McAlester Okmulgee	50.6 52.3 51.1 52.7 52.2 52.4 51.3	84 84 83 85 85 85		12 16 12 15 13 18	5 5 5 5 5 5 5 5	453 409 438 394 410 409 432	7 14 6 12 15 20 7	5.45 4.95 4.69 3.60 4.33 6.40 3.54	1.85 1.61 1.96 1.28 1.42 1.87	13 13 13 13 13 13	Sallisaw Stigler Stuart Tahlequah Webbers Falls Westville	51.4 51.2 52.9 50.5 51.3 50.6	85 84 85 84 86 82	31 31 31 31 31 31	16 15 17 12 18 16	5 5 5 5 5 5	431 436 392 455 430 452	11 10 16 4 6 6	5.85 4.75 5.15 4.50 5.34 4.41	1.83 1.56 1.64 1.36 1.93 1.16	13 13 13 13 13
SOUTHWEST Altus Apache Fort Cobb Grandfield Hinton Hobart	51.6 51.9 51.6 52.1 51.1	89 86 86 84 83		5 9 8 11 8 6	5 5 5 5 5 5 5	419 415 419 405 435 434	4 8 4 5 2 3	1.52 1.30 1.82 2.09 1.77 .68	.48 .40 .51 .56 .67	9 9 31 9 31 19	Hollis Mangum Medicine Park Tipton Walters	52.9 52.0 53.0 52.2 52.8	92 88 85 87 84	25 31 31 31 31	4 8 13 -1 14	5 5 5 5 5	383 406 379 407 387	8 3 8 9 10	.72 .95 2.17 2.54 2.12	.20 .24 .67 1.03 .71	31 5 9 31 9
SOUTH CENTRAL Ada Ardmore Burneyville Byars Centrahoma Durant Fittstown Ketchum Ranch	52.5 ***** 53.8 52.8 52.6 53.5 52.3 52.9	86 *** 87 86 85 84 85 85	24 31 31 31 31	16 *** 13 15 16 20 18	5 5 5 5	403 **** 368 394 400 375 407 386	16 **** 20 15 15 18 13	4.03 3.54 3.42 4.05 4.66 3.35 4.16 3.15	1.29 .69 .56 .87 .98 .71 1.10	13 13 20 25 13 13 13	Lane Madill Newport Pauls Valley Ringling Sulphur Tishomingo Waurika	52.7 53.5 53.9 53.0 53.5 52.3 52.3 52.5 54.1	85 84 86 86 86 85 84	31 24 31 31 31 31 31 25	18 19 16 15 16 15 16	5 5 5 5 5 5 5 5 5	395 374 362 386 373 406 398 356	15 17 17 14 16 13 11	3.97 4.27 3.11 3.54 2.21 3.08 3.35 2.34	.98 .84 .59 .70 .36 .72 .69	9 25 13 13 9 13 13
SOUTHEAST Antlers Broken Bow Clayton Cloudy Hugo	52.2 52.8 52.9 52.7 53.7	84 84 82 80 83	25	14 21 18 20 17	6 6 6 5 5	408 382 393 390 371	12 4 17 9 20	4.98 9.29 4.51 4.46 5.42	1.15 2.44 1.04 .95 1.03	9 13 13 9	Idabel Mt Herman Talihina Wilburton Wister	53.6 52.1 52.4 52.3 51.1	81 79 82 83 83	17 17 24 31 31	21 19 16 19 17	6 5 6 5 5	363 407 406 410 436	9 7 14 17 6	8.60 6.35 5.01 5.36 5.64	1.85 1.56 1.39 1.42 1.84	

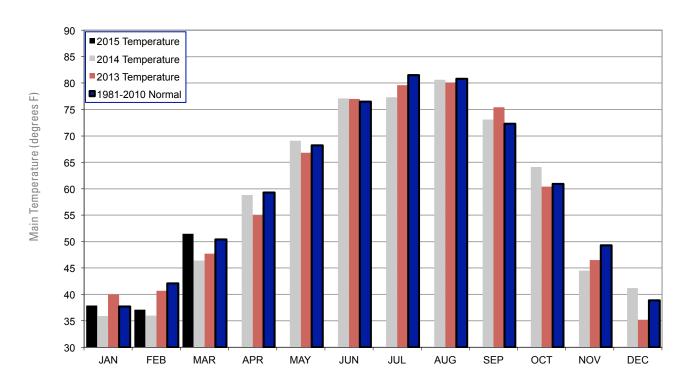
#### 2013, 2014 AND 2015 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



# **March 2015 Mesonet Precipitation Comparison**

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Mar-14
Panhandle	0.84	-0.69	57th Driest	5.66 (1973)	0.01 (1936)	0.19
North Central	0.86	-1.81	31st Driest	8.27 (1973)	0.00 (1936)	0.75
Northeast	2.71	-0.80	59th Driest	9.33 (1973)	0.33 (1971)	2.03
West Central	0.70	-1.59	33rd Driest	6.76 (1973)	0.00 (1971)	0.67
Central	2.85	-0.29	41st Wettest	7.45 (1990)	0.10 (1971)	1.73
East Central	4.84	0.96	25th Wettest	10.02 (1945)	0.52 (1941)	3.06
Southwest	1.61	-0.76	60th Wettest	5.61 (1973)	0.00 (1940)	1.20
South Central	3.51	0.03	36th Wettest	8.15 (1945)	0.28 (1950)	2.44
Southeast	5.96	1.45	17th Wettest	12.50 (1945)	0.96 (2011)	3.72
Statewide	2.63	-0.41	51st Wettest	7.43 (1973)	0.39 (1971)	1.74

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



# **March 2015 Mesonet Temperature Comparison**

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Mar-15 (F)
Panhandle	49.5	3.0	22nd Warmest	55.4 (2012)	34.1 (1958)	44.1
North Central	50.7	2.4	30th Warmest	58.5 (2012)	36.0 (1915)	43.8
Northeast	50.7	1.0	39th Warmest	59.7 (2012)	36.9 (1960)	44.9
West Central	51.5	2.1	30th Warmest	58.3 (1907)	37.2 (1915)	45.3
Central	51.9	1.0	42nd Warmest	60.7 (2012)	38.6 (1915)	46.5
East Central	51.6	-0.1	52nd Warmest	61.2 (2012)	39.8 (1915)	47.2
Southwest	52.0	0.0	49th Warmest	61.4 (1907)	40.6 (1915)	47.7
South Central	53.1	-0.3	54th Warmest	62.1 (1907)	41.6 (1915)	48.8
Southeast	52.6	0.1	50th Warmest	62.0 (1907)	40.3 (1915)	47.7
Statewide	51.5	1.1	41st Warmest	59.6 (2012)	38.5 (1915)	46.2

### **RECORD EVENT REPORTS MARCH 2015**

Description	Day	Location	Record	Previous Record	Year
Daily maximum snowfall	4	Oklahoma City	3	1.4	1915
Daily minimum temperature	4	Oklahoma City	10	10	1960
Daily high temperature	24	McAlester	83	82	2000
Daily high temperature	25	McAlester	84	82	2012

### **MESONET EXTREMES FOR MARCH 2015**

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	16th	Beaver	3	5th	Hooker	1.14	Hooker	0.67	19th	Goodwell
North Central	88	16th	Freedom	6	5th	Blackwell	1.19	Woodward	0.76	19th	Woodward
Northeast	86	31st	Pawnee	8	5th	Burbank	4.75	Jay	2.07	25th	Tulsa
West Central	88	31st	Retrop	4	5th	Erick	1.14	Weatherford	0.65	31st	Weatherford
Central	88	31st	Chickasha	-1	5th	Kingfisher	9.07	Bowlegs	5.36	31st	Bowlegs
East Central	86	31st	Webbers Falls	12	5th	Cookson	6.40	McAlester	1.96	13th	Haskell
Southwest	92	25th	Hollis	-1	5th	Tipton	2.54	Tipton	1.03	31st	Tipton
South Central	88	25th	Waurika	13	5th		4.66	Centrahoma	1.29	13th	Ada
Southeast	84	17th	Broken Bow	14	6th	Antlers	9.29	Broken Bow	2.44	13th	Broken Bow
Statewide	92	25th	Hollis	-1	5th	Tipton	9.29	Broken Bow	5.36	31st	Bowlegs

#### **Oklahoma Climate Divisions**



# **MARCH 2015 DROUGHT INDICES**

U.S. Drought Monitor Oklahoma

#### March 31, 2015

(Released Thursday, Apr. 2, 2015) Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Сиггепт	14.36	85.64	68.62	50.68	37.38	8.41
Last Week 3/24/2015	14.36	85.64	70.40	50.96	35.74	8.41
3 Months Ago 12/3/02/01/4	25.63	74.37	62.03	40.84	21.74	5.70
Start of Calendar Year 12/3/02/01/4	25.63	74.37	62.03	40.84	21.74	5.70
Start of Water Year 930/2014	8.55	91.45	73.31	58.13	20.92	4.64
One Year Ago 4/1/2014	4.05	95.95	77.48	50.67	24.03	8.61

Intensity:	
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought
D2 Severa Drought	

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

Author: Eric Luebehusen

U.S. Department of Agriculture









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: <a href="http://aa.usno.navy.mil/data">http://aa.usno.navy.mil/data</a>

#### SEVERE STORM REPORTS

Storm Prediction Center: http://spc.noaa.gov/climo/

National Climatic Data Center (more than about 4-5 months old): <a href="http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwEvent~Storms">http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwEvent~Storms</a>

#### **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 is the State Climate Office for Oklahoma

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