Oklahoma Monthly Climate Summary

Largely deprived of its primary rainy season, Oklahoma saw

four Mesonet stations out of 120 to receive at least 5 inches of rain. Sixty-seven sites recorded less than 2 inches for the month. Tulsa had the state's lowest total at 0.11 inches, its driest June since local records began in 1893. The January-June precipitation total of 20.1 inches was 1.07 inches above normal to rank as the 33rd wettest on record, but rainfall varied wildly from one region to the next. Deficits across the northwestern half of the state ranged from 2-6 inches while the southeastern half saw surpluses balloon to nearly 17 inches above normal.

June's weather was scorching hot during the first half of the month, and ended much the same. Sandwiched in between was a 10-day period of pleasantly cooler than normal weather, a fringe benefit of the mid-month storm system that brought moisture to the state. Altogether, the statewide average of 78.5 degrees was 2 degrees above normal to rank

	Average	Depart.	Rank (1895-2020)							
Month (Jun)	78.5°F	2.0°F	32nd Warmest							
Year-to-Date (Jan-Jun)	57.2°F	1.5°F	16th Warmest							
Precipitation										
	Rank (1895-2020)									
Month (Jun)	1.97 in.	-2.55 in.	15th Driest							
Year-to-Date (Jan-Jun)	20.10 in.	1.07 in.	33rd Wettest							

June 2020 Statewide Statistics Temperature

Depart. = departure from 30-year normal

as the 32nd warmest June on record. The top reading in the state was 109 degrees at Altus and Erick on June 30, and the lowest was a chilly 40 degrees from both Eva and Kenton on June 10. The mid-month moisture made for sultry conditions when the heat returned to end the month. The heat index soared as high as 113 degrees at several locations on June 30. The Mesonet's 120 stations reported a heat index of at least 105 degrees 191 times during the month. The warm June continued a pattern for 2020. The January-June statewide average of 57.2 degrees was 1.5 degrees above normal to rank as the 16th warmest such period on record.

drought surge across the state during June. A mid-month bout with showers and storms managed to stem the flash drought's intensification and spread with beneficial rains across northwestern Oklahoma. The respite was brief, however. Dry weather and intense heat returned by the end of the month and drought was again on the move to the south and east. Contained wholly within the western half of the state at the end of May, drought had progressed to the state's eastern border by the end of June. Drought coverage leapt from 14% of the state to 43% over that same period according to the U.S. Drought Monitor. That was the highest coverage of drought Oklahoma had seen since Aug. 14, 2018. Much of the western Panhandle was covered by extreme drought, and exceptional drought bled down from Kansas and Colorado into far northern Cimarron and Texas counties. The Drought Monitor's intensity scale slides from moderate-severe-extreme-exceptional, with exceptional being the worst classification.

Description	Extreme	Station	Day
High Temperature	109°F	Altus, Eric	30
Low Temperature	40°F	Eva, Kenton	10
High Precipitation	6.32 in.	Walters	
Low Precipitation	0.13 in.	Tahlequah	

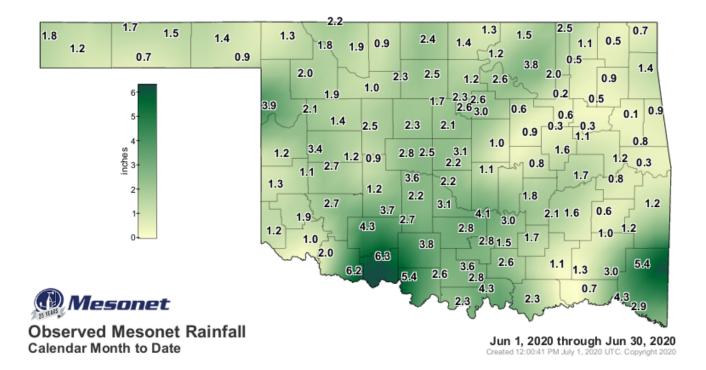
June 2020 Statewide Extremes

Normally the wettest part of the year in Oklahoma, the mid-May through mid-June period was dominated by a large dome of high pressure over the Southern Plains that limited chances for significant moisture. The mid-month storm system managed to partially salvage the primary spring rainy season for Oklahoma, but significant deficits remained following its exit. According to preliminary data from the Oklahoma Mesonet, the statewide average rainfall total was 1.97 inches, 2.55 inches below normal and ranked as the 15th driest June since records began in 1895. Most of the state ended with deficits of 1-3 inches, with the lowest totals being reported across eastern Oklahoma. Deficits there reached 5 inches in some locations and amounted to less than 10 percent of their normal June rainfall. The Mesonet site at Walters led the reports with 6.32 inches, one of only

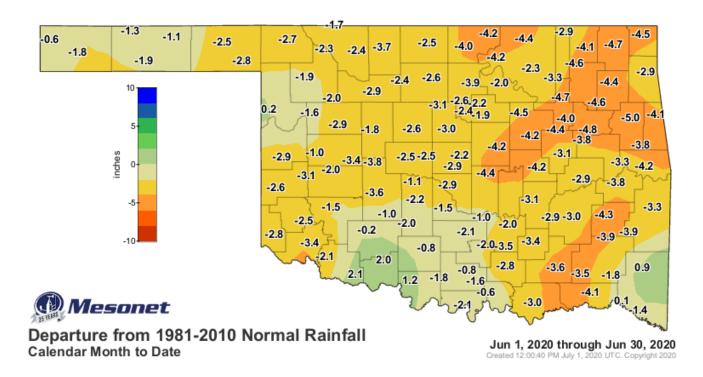


Drought development across the remainder of Oklahoma – save for the southeast quarter – is considered "likely" according to the Climate Prediction Center's (CPC) drought outlook for July. The existing drought across the northwestern third of the state is expected to persist and possibly intensify. CPC's negative stance is a result of equally unpleasant July outlooks for precipitation and temperature that indicate increased odds for above normal temperatures and below normal precipitation are enhanced across much of western and central Oklahoma.

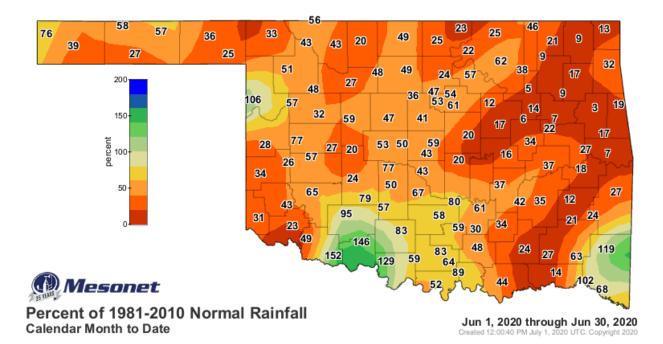
JUNE 2020 OBSERVED PRECIPITATION



JUNE 2020 DEPARTURE FROM NORMAL PRECIPITATION

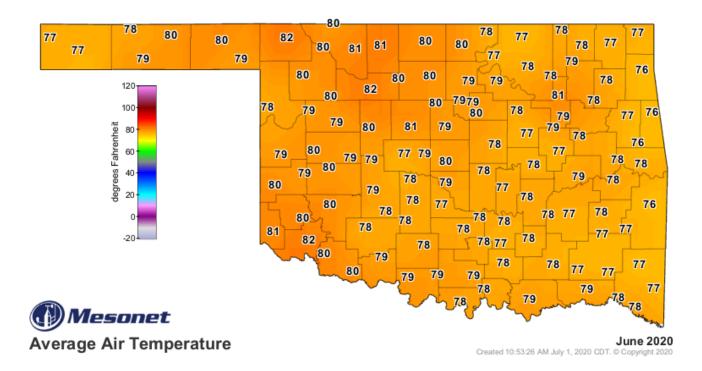


JUNE 2020 PERCENT OF NORMAL PRECIPITATION

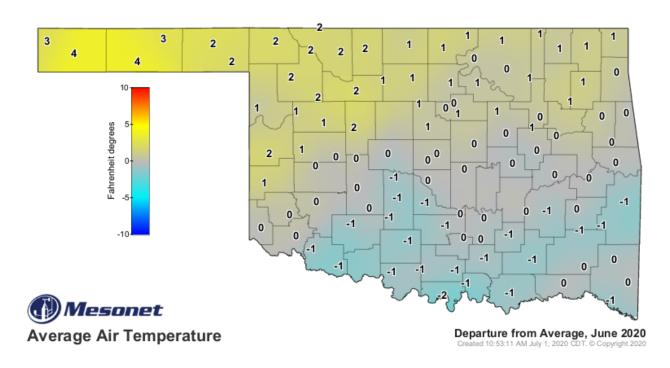


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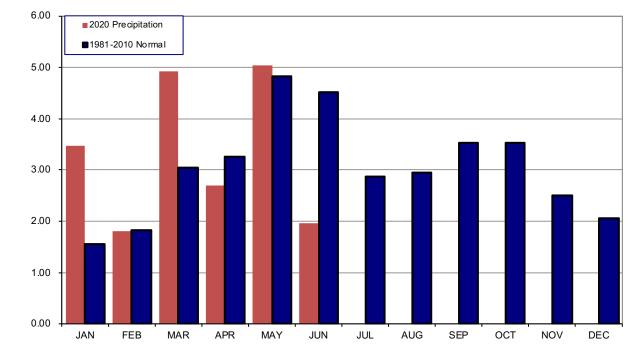
JUNE 2020 DEPARTURE FROM NORMAL TEMPERATURE



MESONET MONTHLY SUMMARY FOR JUNE 2020

NAME	MEAN TEMP			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 Eva	78.0 79.8 76.9 81.5 77.5	102 104 102 108 106	30 30 5 30 29	50 46 44 54 40	10 10 10 10 10	1 1 3 0 10	390 444 359 496 385	3.94 1.43 1.16 1.33 1.72	1.59 1.02 .90 .91 1.00	19 21 19 21 19	Goodwell Hooker Kenton Slapout	79.1 79.2 77.2 78.9	105 105 102 105	29 29 5 30	43 44 40 48	10 10 10 9	5 4 2	427 429 369 419	.70 1.48 1.84 .94	.56 .60 1.03 .39	22 11 19 21
NORTH CENTRAL Alva Blackwell Breckinridge Cherokee Fairview Freedom Lahoma	80.2 79.3 79.7 81.2 81.3 80.5 79.9	104 97 100 105 104 107 102	30 30 4 30 30 30 4	52 52 53 51 59 56 52	11 11 11 10 10 11	0 0 0 0 0 0	455 428 440 485 488 465 447	1.85 1.35 2.51 .90 1.03 1.76 2.25	1.25 1.16 1.34 .64 .61 1.25 1.72	21 19 19 19 19 21 19	May Ranch Medford Newkirk Red Rock Seiling Woodward	79.4 79.8 78.2 78.9 80.1 79.8	105 101 94 96 105 104	30 4 30 30 30 30	54 51 57 52 52 53	9 11 11 11 11 10	0 0 0 0 0	432 444 395 418 453 443	2.24 2.41 1.27 1.23 1.87 1.97	.98 2.09 1.07 1.03 1.01 1.17	19 19 19 21 21
NORTHEAST Bixby Burbank Copan Foraker Inola Jay Miami Nowata	78.7 77.3 78.2 77.1 77.8 76.4 77.1 77.4	95 94 92 92 93 93	9 30 9 6 6 6 6 6	54 50 53 55 53 51 53 50	11 11 11 11 11 11 11 11	0 0 0 0 0 0 0	411 370 396 362 384 341 364 371	.64 1.19 2.48 1.45 .46 1.40 .67 1.07	.57 1.11 1.86 1.32 .33 .74 .59 .72	23 19 19 19 19 4 4 19	Pawnee Porter Pryor Skiatook Talala Tulsa Vinita Wynona	78.6 78.0 78.3 78.8 80.1 76.8 77.9	95 95 94 94 95 93 93	6 9 6 6 6 6 6	52 53 57 55 56 52 52	11 11 11 11 11 11 11 11	0 0 0 **** 0 0	409 407 390 399 **** 454 355 386	2.62 .34 .93 2.04 .46 .24 .48 3.77	2.14 .18 .39 1.91 .43 .14 .22 3.70	19 22 19 19 19 19 19 30 19
WEST CENTRAL Bessie Butler Camargo Cheyenne Elk City	79.5 79.7 78.7 79.3 79.2	104 105 105 105 108	30 30 30 30 30	52 51 48 52 50	10 10 10 9 10	0 0 0 1 0	436 441 410 429 425	2.69 3.36 2.13 1.15 1.10	1.21 1.21 .90 .44 .58	21 21 19 22 22	Erick Putnam Watonga Weatherford	79.9 79.2 80.3 79.2	109 105 103 101	30 30 4 4	51 54 57 47	10 10 10 10	0 0 0 0	448 427 460 426	1.32 1.36 2.48 1.24	1.00 .74 1.19 .99	4 19 19 21
CENTRAL Acme Bristow Lake Carl Blac Chandler Chickasha El Reno Guthrie Kingfisher Marena Minco Marshall Marshall	77.9 76.7 78.3 78.2 77.8 76.7 79.5 80.6 77.9 77.7 79.3 84.0	96 93 97 98 98 102 95 96 98 106	4 4 4 4 4 4 4 4 4 4 4 22	52 50 48 54 50 58 51 55 54 51 64	11 11 11 11 11 11 11 11 11 10 11 4	0 0 0 0 0 0 0 0 0 0 0 0	386 350 399 384 352 434 467 386 380 429 590	2.72 .86 2.28 1.02 2.22 2.76 2.13 2.33 2.60 3.59 1.73 1.92	1.32 .36 1.81 .82 1.01 1.45 1.48 1.31 1.84 1.92 .87 1.41	19 23 19 19 19 19 19 21 19 21 19 3	Norman Oilton OKC East Okemah Perkins Seminole Shawnee Spencer Stillwater Washington Yukon	78.6 77.7 79.3 77.9 79.6 77.2 78.6 78.5 78.8 77.2 78.5	94 93 96 94 97 93 94 97 96 94 97	4 4 4 5 30 4 4 4 4	53 49 53 53 55 54 57 51 51 56	11 11 11 11 11 11 11 11 11 11	0 0 0 0 0 0 0 0 0 0	408 380 428 387 438 366 408 405 415 365 406	2.19 .60 2.19 .81 3.04 1.88 1.07 3.09 2.60 3.14 2.52	1.48 .49 1.61 .67 2.87 .89 .80 2.94 2.08 1.47 1.64	19 19 22 19 19 19 19 19 21 19
EAST CENTRAL Cookson Eufaula Haskell Hectorville Holdenville McAlester Okmulgee	76.4 78.6 77.9 78.6 78.1 77.4 77.0	93 94 95 93 93 93	6 9 9 6 5 6 6	51 55 54 58 58 52 51	11 11 11 11 11 11 11	0 0 0 0 0 0	341 408 386 408 393 371 359	.78 1.72 1.05 .27 1.80 1.61 1.60	.25 .95 .82 .11 1.07 .68 .88	23 23 22 19 22 23	Sallisaw Stigler Stuart Tahlequah Webbers Falls Westville	77.8 77.8 77.9 76.9 78.2 75.7	95 94 93 93 96 92	6 9 6 9 6	53 53 55 51 55 53	11 11 11 11 11 11	0 0 0 0 0	384 385 386 357 397 322	.31 .81 2.07 .13 1.23 .93	.09 .44 1.39 .11 .63 .85	20 20 23 22 23 4
SOUTHWEST Altus Apache Fort Cobb Grandfield Hinton Hobart	81.4 78.1 78.6 80.2 78.6 80.2	109 98 100 101 100 103	30 4 4 4 4 30	54 52 53 52 52	10 10 10 10 10 10	0 0 0 0 0 ****	493 394 408 457 407 ****	1.02 3.68 1.15 6.22 .92 2.74	.84 2.10 .73 3.62 .46 1.39	19 19 21 19 21 23	Hollis Mangum Medicine Park Tipton Walters	80.2 79.9 78.2 80.0 78.8	108 107 96 102 100	30 30 4 30 4	50 47 54 49 52	10 10 10 10 10	0 0 0 ****	457 446 395 450 ****	1.24 1.91 4.30 2.03 6.32	.85 .75 2.86 1.59 3.14	19
SOUTH CENTRAL Ada Ardmore Burneyville Byars Centrahoma Durant Fittstown Ketchum Ranch	77.9 78.9 78.0 78.2 77.7 78.9 76.9 78.1	94 96 95 94 95 93 96	4 4 4 6 5 4	51 57 52 57 51 55 52 54	11 11 11 11 11 11 11 11	0 0 0 0 0 0 0	386 417 389 397 380 417 358 392	3.02 2.84 2.29 4.10 1.70 2.33 1.50 3.83	1.42 1.05 .67 2.18 .82 .89 .52 2.37	21 21 21 22 22 23 19	Lane Madill Newport Pauls Valley Ringling Sulphur Tishomingo Waurika	78.0 78.1 78.2 78.4 79.1 77.9 77.8 79.0	94 93 95 97 94 94 98	6 5 4 4 4 4 6 4	52 51 52 52 51 53 52	11 11 10 11 10 11 11 11	0 0 **** 0 0 0 0 0	390 394 **** 401 424 386 385 421	1.10 4.26 3.60 2.83 2.58 2.84 2.55 5.42	.57 2.10 1.42 1.45 .85 1.05 1.13 2.79	22 21 19 19 4 19 19 21
SOUTHEAST Antlers Broken Bow Clayton Cloudy Hugo Idabel	77.6 77.2 77.9 77.3 79.0 78.5	95 95 94 96 96	6 6 9 9	50 53 51 52 56 54	11 11 11	0 **** 0 0 ****	386 368	1.28 3.71 1.01 2.99 .69 2.90	.75 2.68 .39 1.24 .37 1.04	21 21 21 21 22 21	Mt Herman Talihina Valliant Wilburton Wister	76.9 77.6 78.9 78.2 76.3	94 95 98 94 94	9 6 9 5	52 49 53 51 49	11 11 11 11 11	**** 0 0 0 0	377 416 395	5.37 1.24 4.27 .57 1.23	4.31 .87 2.27 .29 .67	21 21 21 22 4



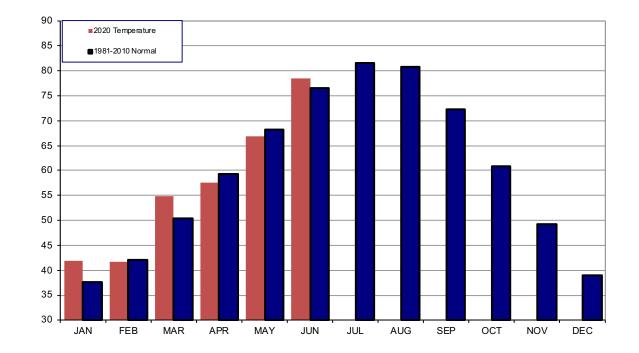


June 2020 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Jun-19 (inches)
Panhandle	1.62	-1.55	29th Driest	7.09 (1962)	0.29 (1911)	3.24
North Central	1.74	-2.79	12th Driest	10.87 (2007)	0.40 (1933)	4.40
Northeast	1.27	-3.97	3rd Driest	12.64 (2007)	0.28 (1933)	7.19
West Central	1.87	-2.28	26th Driest	8.90 (1962)	0.30 (1933)	3.48
Central	2.15	-2.77	27th Driest	12.63 (2007)	0.41 (1933)	5.07
East Central	1.10	-3.70	6th Driest	12.47 (1935)	0.69 (2011)	6.26
Southwest	2.87	-1.40	54th Driest	9.96 (2007)	0.43 (1911)	2.52
South Central	2.92	-1.81	42nd Driest	11.30 (1908)	0.25 (1933)	5.06
Southeast	2.15	-2.50	20th Driest	11.51 (1935)	0.77 (1933)	8.55
Statewide	1.97	-2.55	15th Driest	9.52 (2007)	0.44 (1933)	5.09

2020 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL

Main Temperature (degrees F)



June 2020 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Jun-19 (F)
Panhandle	78.7	4.5	13th Warmest	82.9 (1953)	67.0 (1903)	72.0
North Central	79.9	3.3	17th Warmest	85.2 (1953)	69.1 (1903)	75.0
Northeast	77.6	1.8	39th Warmest	84.4 (1911)	70.3 (1903)	75.0
West Central	79.5	2.8	22nd Warmest	85.7 (1953)	70.0 (1903)	75.2
Central	78.3	1.5	39th Warmest	85.2 (1911)	71.1 (1903)	75.8
East Central	77.6	1.2	49th Warmest	84.5 (1953)	70.3 (1903)	75.7
Southwest	79.3	1.0	51st Warmest	87.3 (2011)	72.4 (1903)	77.2
South Central	78.2	0.3	60th Coolest	85.7 (1911)	72.0 (1903)	76.8
Southeast	77.6	1.5	39th Warmest	83.5 (1953)	70.6 (1903)	75.6
Statewide	78.5	2.0	32nd Warmest	84.8 (1953)	70.3 (1903)	75.4

MESONET EXTREMES FOR JUNE 2020

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	108	30th	Buffalo	40	10th	Kenton	3.94	Arnett	1.59	19th	Arnett
North Central	107	30th	Freedom	51	11th	Cherokee	2.51	Breckinridge	2.09	19th	Medford
Northeast	95	6th	Pryor	50	11th	Burbank	3.77	Wynona	3.70	19th	Wynona
West Central	109	30th	Erick	47	10th	Weatherford	3.36	Butler	1.21	21st	Bessie
Central	102	4th	Kingfisher	48	11th	Lake Carl Blackwell	3.59	Minco	2.94	19th	Spencer
East Central	96	9th	Webbers Falls	51	11th	Okmulgee	2.07	Stuart	1.39	23rd	Stuart
Southwest	109	30th	Altus	47	10th	Mangum	6.32	Walters	3.62	19th	Grandfield
South Central	98	4th	Waurika	51	11th	Ada	5.42	Waurika	2.79	21st	Waurika
Southeast	98	9th	Valliant	49	11th	Talihina	5.37	Mt Herman	4.31	21st	Mt Herman
Statewide	109	30th	Altus	40	10th	Kenton	6.32	Walters	4.31	21st	Mt Herman

Oklahoma Climate Divisions



U.S. Drought Monitor **Oklahoma**

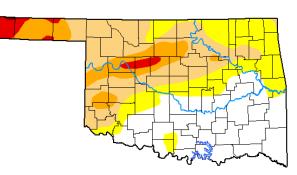
June 30, 2020 (Released Thursday, Jul. 2, 2020) Valid 8 a.m. EDT

Drought Conditions (Percent Area) None D0-D4 D1-D4 D2-D4 D3-D4

15.39 4.46

D4

0.10



Last Week 56.75 34.75 43.25 13.95 0.00 4.26 06-23-2020 3 Month s Ago 03-31-2020 95.89 4.11 2.52 0.84 0.00 0.00 Start of Calendar Year 23.55 76.45 10.47 3.64 0.00 0.00 Start of Water Year 10-01-2019 28.06 71.94 11.08 1.01 0.00 0.00 One Year Ago 07-02-2019 99.98 0.02 0.00 0.00 0.00 0.00

65.13 43.03

34.87

Intensity:

Current

None D0 Abnormally Dry

NDMO

D2 Severe Drought D3 Extreme Drought

D1 Moderate Drought D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

<u>Author:</u> Adam Hartman NOAA/NWS/NCEP/CPC

USDA



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.

ADDITIONAL RESOURCES

SUNRISE / SUNSET TABLES U.S. Naval Observatory: <u>http://aa.usno.navy.mil/data</u>

SEVERE STORM REPORTS Storm Prediction Center: <u>http://spc.noaa.gov/climo/</u>

National Centers for Environmental Information: https://www.ncdc.noaa.gov/stormevents/

SEASONAL OUTLOOKS Climate Prediction Center: http://www.cpc.ncep.noaa.gov/products/OUTLOOKS_index.shtml

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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