Oklahoma Monthly Climate Summary

JANUARY 2013

OKLAHOMA CLIMATOLOGICAL SURVEY

January seemed destined to finish on the dry side of normal, just as the eight months previous to it had, before a late-month burst of spring changed its fortunes. Tornado watches covered much of the eastern two-thirds of the state on the 29th, a by-product of the storm system that also dumped 1-3 inches of rain across parts of that same area. There were no confirmed tornadoes in Oklahoma, but reports of large hail and wind damage were scattered across the state. The late-month frenzy from Mother Nature brought January's precipitation total 0.2 inches above normal and a final statewide average of 1.6 inches according to data from the Oklahoma Mesonet. That ranks the month as the 45th wettest January since records began in 1895, and the first month since April 2012 to finish with above normal precipitation. Not all areas of the state were so fortunate. Parts of western Oklahoma finished the month with less than an inch of rainfall. Combined with December, the first two months of winter finished 0.9 inches below normal at 2.5 inches, the 39th driest December-January period on record. Coming off the driest May-December on record for the state, the May-January statewide average of 15.4 inches ranked as the third driest such period on record, behind similar periods in 1910-11 (14.5 inches) and 1952-53 (15.2 inches).

To the delight of some and the chagrin of cold-weather enthusiasts, January's temperatures did continue a trend. The month became the 28th out of the last 34 to finish warmer than normal, a rarely-interrupted streak that began with April 2010. Included in that streak are the warmest month (July 2011) and summer (2011) for any state on record, the warmest Oklahoma spring (2012) on record, and the warmest Oklahoma year (2012) on record. According to preliminary data from the Oklahoma Mesonet, the statewide average temperature was 40 degrees, 3.9 degrees above normal and the 28th warmest January on record. Despite the lofty ranking, there were still a few bouts with frigid weather. Kenton recorded the state's lowest temperature for the month at minus 10 degrees on the second. That is the lowest temperature recorded by the Mesonet since Nowata broke the state's all-time low temperature record with minus 31 degrees back on Feb. 10, 2011. The highest temperature of the month was 81 degrees, recorded at Grandfield on the 28th. The first two months of winter had a statewide average temperature of 40.9 degrees, 3.3 degrees above normal and ranked as the 17th warmest December-January period on record.

The U.S. Drought Monitor ended the month with 92 percent of the state in at least Extreme (D3) drought, and 37 percent of that in the Exceptional (D4) category. The Drought Monitor's intensity scale slides from moderate-severe-extreme-exceptional, with exceptional being the worst category. Oklahoma reservoirs, some of which have fallen to historic lows, made some gains in eastern Oklahoma. Broken Bow Lake in McCurtain County rose to 77 percent of capacity, a nine percent rise in about a month's time. Hugo Lake in Choctaw County rose from 37 percent to 61 percent. The lakes farther to the west still remain near those historic lows, however. The reservoir at Altus-Lugert remained at 16 percent of capacity, and nearby Tom Steed Lake hovered at 35 percent.

January 2013 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	81°F	Grandfield	28
Low Temperature	-10°F	Kenton	2
High Precipitation	4.45 in.	Mt. Herman	--
Low Precipitation	0.28 in.	Boise City	--

January 2013 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2013)
Month (January)	40.0°F	3.9°F	28th Warmest
Season-to-Date (Dec - Jan)	40.9°F	3.4°F	17th Warmest

Precipitation

	Average	Depart.	Rank (1895-2013)
Month (January)	1.60 in.	0.15 in.	45th Wettest
Season-to-date (Dec-Jan)	2.53 in.	-0.94 in.	39th Driest

Depart. = departure from 30-year normal

JANUARY 1: A cold front that moved through New Year's Eve night left temperatures on the cooler side for New Year's Day. Maximum temperatures ranged between the 20s and 40s with southeast Oklahoma receiving the upper end. Minimum temperatures had an extremely large spread with the warmest lows in the 30s (southeast) and the coolest lows in the single digits (panhandle). Trace amounts of precipitation fell in the form of light snow in northern Oklahoma and light freezing rain and drizzle in southern Oklahoma. Wind speeds averaged between 5 and 15 mph.

JANUARY 2-7: Rebounding from the cold front, temperatures started to gradually warm. The highest maximum temperatures climbed from the upper 40s to the upper 50s. The lows mirrored the same gradual warming trend, but started off even colder than the previous day's minimums. Kenton had the lowest temperatures from the second to the sixth, increasing from a frigid -10 degrees to 6 degrees. Lows elsewhere averaged between the mid-teens and 20s during mid-week and between the 20s and 30s by the weekend. Trace amounts of precipitation were recorded in the northwest throughout this period. The only station reaching above a tenth of an inch was May Ranch on the fourth at 0.17inches. Wind speeds were slightly calmer, averaging between 3 and 10 mph.

JANUARY 8-10: Rain returned to the picture, producing over half an inch of precipitation in southeast Oklahoma on the eighth and ninth, and northwest and west-central OK on the 10th. The highest amounts, measuring just over an inch, were reported at Broken Bow and Idabel on the ninth. Temperatures remained on the warm side with highs in the 50s and mid-60s. Lows were up as well, ranging from the 20s to the low 50s. With moisture present and temperatures nearing their dew point, dense fog was able to form in portions of central and northern Oklahoma. This dropped visibility below half a mile at times. Wind speed averages were generally between 5 and 10 mph, but managed to bump as high as 17 mph on the ninth.

JANUARY 11: The 11th was a warm and rain-free day. Maximum temperatures were mainly in the 60s and 70s, peaking at 75 in Waurika and 73 in other portions of south-central Oklahoma. Minimum temperatures ranged from 23 in Boise City to 48 in Byars. Winds were brisk at 10-20 mph with gusts as high as 63 in Goodwell and Boise City.

JANUARY 12-15: A cold front moved through the state on the 12th producing chilly temperatures behind it, scattered light rain and light freezing rain, and a few thunderstorms. As isolated storms popped up, they produced rainfall accumulations over an inch in portions of southeast Oklahoma. Despite Mt. Herman almost reaching the 2-inch mark with a reported 1.90 inches, most towns received half an inch or less. Light rain lingered from the 13th-15th and supplied less than a tenth of an inch to southeast and northwest Oklahoma. Maximum temperatures were still in the 60s and 70s ahead of the front on the 12th, but quickly cooled in the days that followed. Highs dropped between the 20s and 40s, and lows ranged between the single digits in the panhandle and the 30s in the southeast. Winds were pretty gusty, hitting over 40 mph on the 12th and 13th and averaging between 10 and 25 mph.

JANUARY 16-20: Sunny skies throughout the majority of the state allowed temperatures to slowly hoist themselves up. The highest maximum temperatures increased from 56 in the panhandle on the 16th to the mid-60s on the 19th. Minimum temperatures had the largest climb, however, measuring between the teens and 20s on the 16th and then the 20s and 40s by the 19th. Wind speeds tended to stay under 10 mph, except on the 18th where a few areas averaged just above 15 mph. Fog affected Durant and Ardmore on the 19th by reducing visibility below a quarter of a mile.

JANUARY 21-24: This period started off fairly cool, but temperatures gradually rebounded despite multiple cold front passages. While highs ranged between the 30s and 50s, they quickly pushed into the 60s and 70s. This climb in temperature marked unseasonably warm highs in much of the state, such as Burneyville (75), Kenton (74), and Boise City (74), to name a few. Lows were predominantly between the teens and 30s, except for in southeast Oklahoma where they only dipped into the 40s on that Thursday. Fog was becoming a familiar event as it returned to southern Oklahoma once again on the 24th. Wind speeds were usually in the region of 5-10 mph for much of Oklahoma.

JANUARY 25: The 25th was somewhat of an outlier as its temperatures were much cooler than the surrounding days. Oklahoma's slight break from the warming trend allowed areas to only reach as high as 57. Most of the state had maximums in the 40s and 50s and lows in the 20s and 30s. Wind speeds were less than 10 mph and patches of fog revisited southern portions of the state.

JANUARY 26: Drastically different in temperature than the day before, the 26th had highs in the 60s and one report of 70 in Kenton. Minimums ranged between 21 in El Reno and 43 in Idabel. As moisture came in the form of patchy-dense fog over central and south-central Oklahoma, it presented itself as negligible amounts of light drizzle in the northern half of the state. Wind speeds were between 5 and 10 mph.

JANUARY 27-28: The 27th and 28th recorded the warmest daily temperatures for the entire month. Maximums in the 60s and 70s were common on Sunday, while temperatures in the 70s were felt throughout the majority of the state on the following day. Temperatures peaked as high as 80 degrees in Hollis on the 27th and 81 degrees in Grady on the 28th. A dryline moved in from the west during this period, which caused a schism of low temperatures and wind speeds on the west and east side of the state. Ahead of the front, lows were in the 50s and 60s and wind speeds were between 15 and 20 mph. Behind the dryline, lows were in the 30s and 40s and winds fluctuated between 10 and 15 mph. On the 28th, winds gusted in the 50s in the panhandle and Oklahoma City tied its daily warmest low temperature at 60 degrees.

JANUARY 29: Ahead of an approaching cold front, a line of showers and strong-to-severe thunderstorms moved east-northeast across the state. Accumulations of precipitation generally measured anywhere between a quarter of an inch and 1.5 inches. The highest amounts were observed in northeast Oklahoma with Newkirk and Jay receiving 2.67 and 2.57 inches, respectively. The far northwest was the only region void of any precipitation. Although wind speeds averaged between 10 and 15 mph, gusts were reported in the 50s with

one severe report of 70 mph from Copan. Severe weather conditions became even more evident in the afternoon as an EF-2 tornado formed in far eastern Sequoyah County and continued into Arkansas. Maximum temperatures ranged between the 40s in the panhandle to the mid-70s in south-central Oklahoma; lows were anywhere from 20 degrees in Boise City to 52 degrees in Idabel.

JANUARY 30-31: Skies started to clear and weather conditions became milder for the last two days in January. Even with a dusting of light snow present in portions of north central and central Oklahoma, statewide precipitation amounts were trivial. Maximum temperatures averaged in the 40s and 50s on the 30th and jumped into the mid-60s on the 31st. Low temperatures were between 13 degrees in Kenton and 37 degrees in Hugo. Wind speeds averaged from roughly 10-15 mph on Wednesday, but reduced by about 5 mph on Thursday.

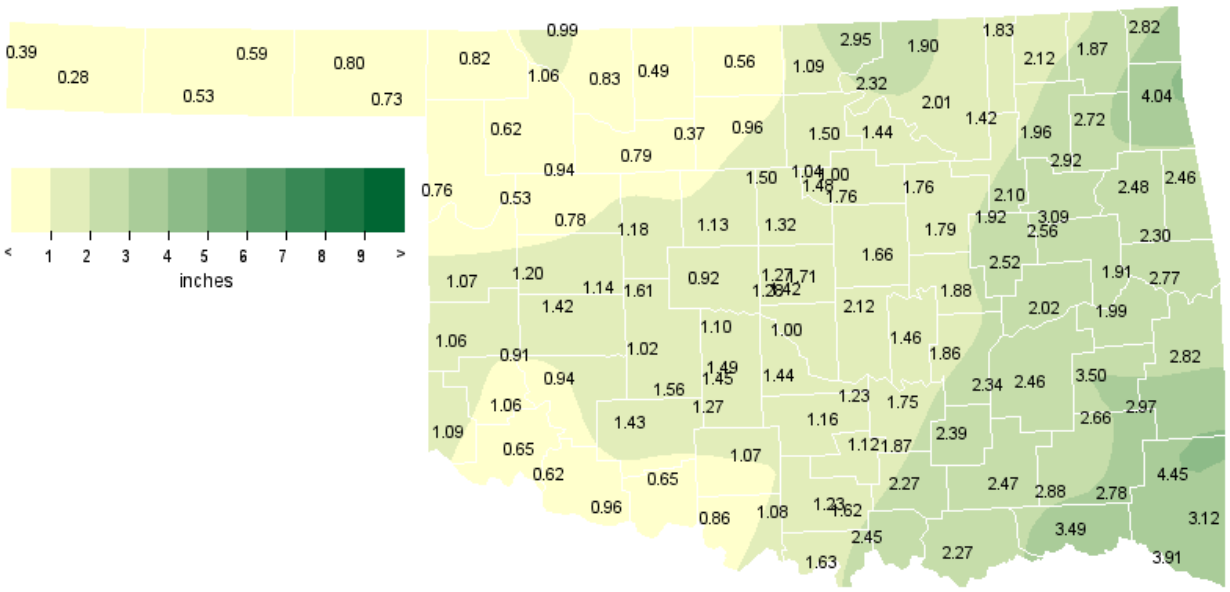
Significant Tornadoes (EF2 or greater)

EF-Rating	County	Day
EF-2	Sequoyah County	29

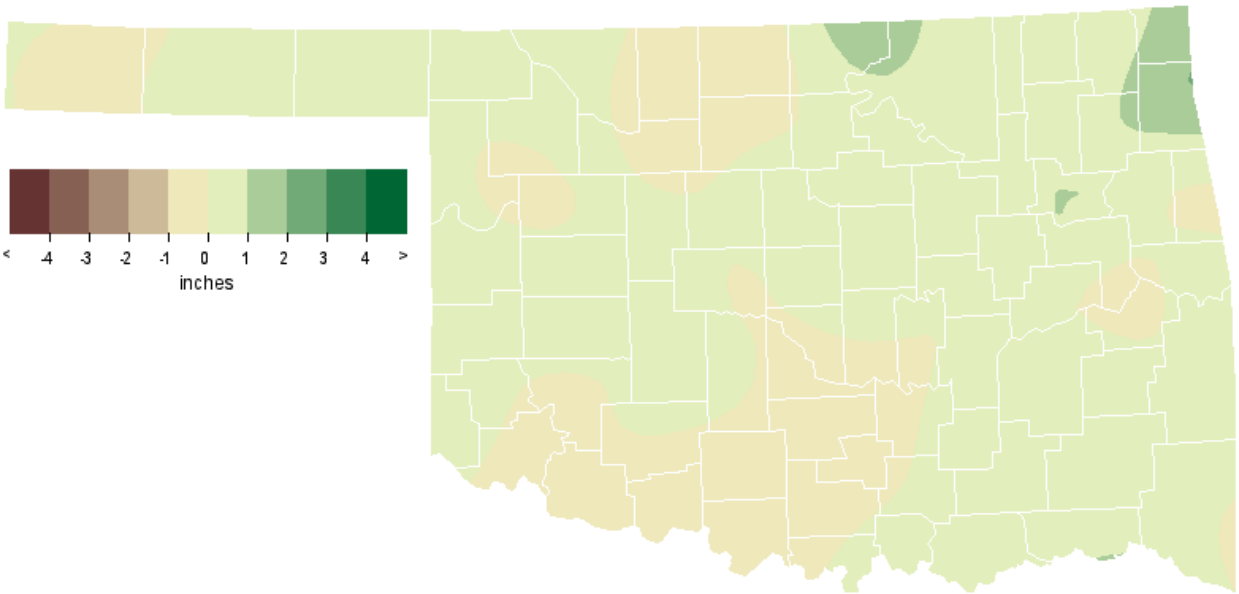
Wind Gusts (70 mph or greater)

Speed (m.p.h.)	Location	County	Day
70	2 ENE Copan	Washington	29

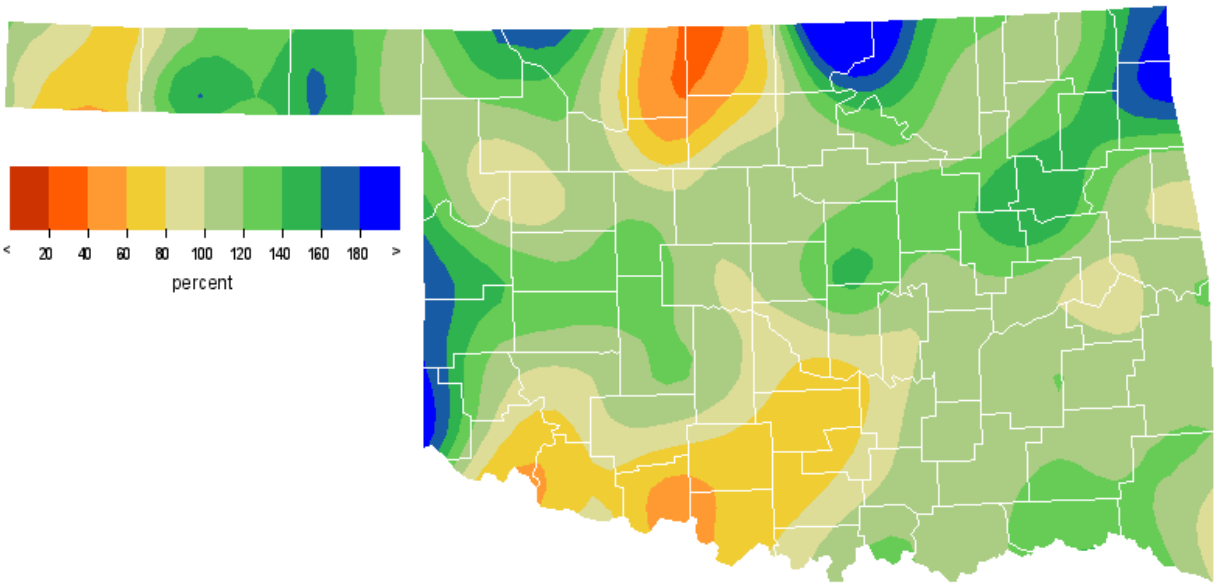
JANUARY 2013 OBSERVED PRECIPITATION



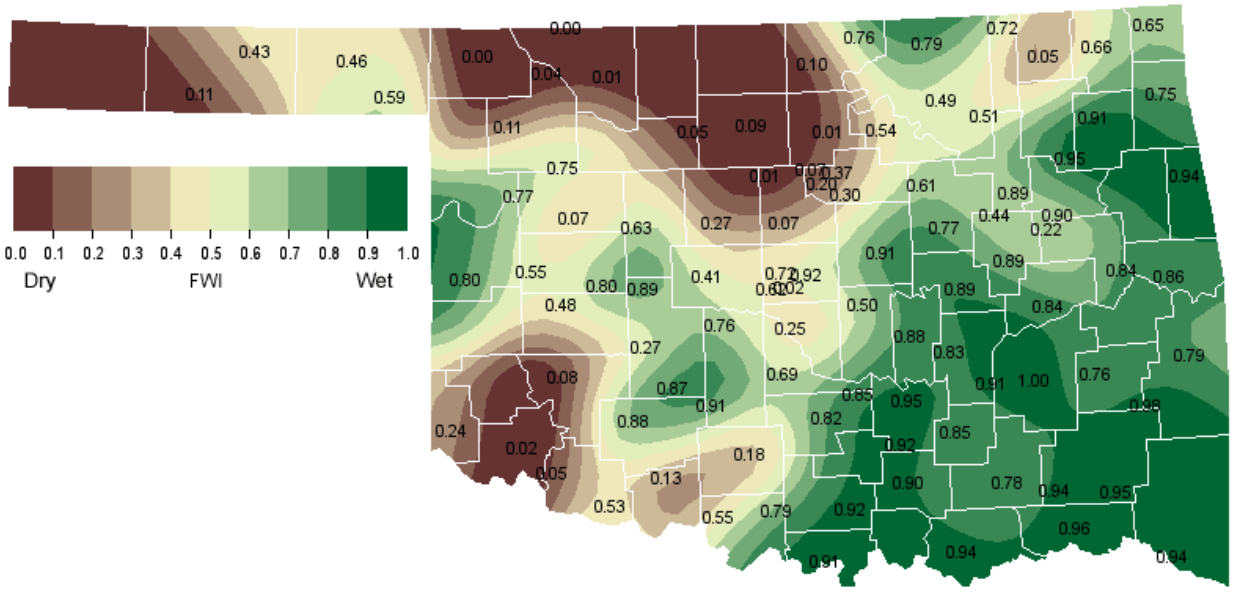
JANUARY 2013 DEPARTURE FROM NORMAL PRECIPITATION



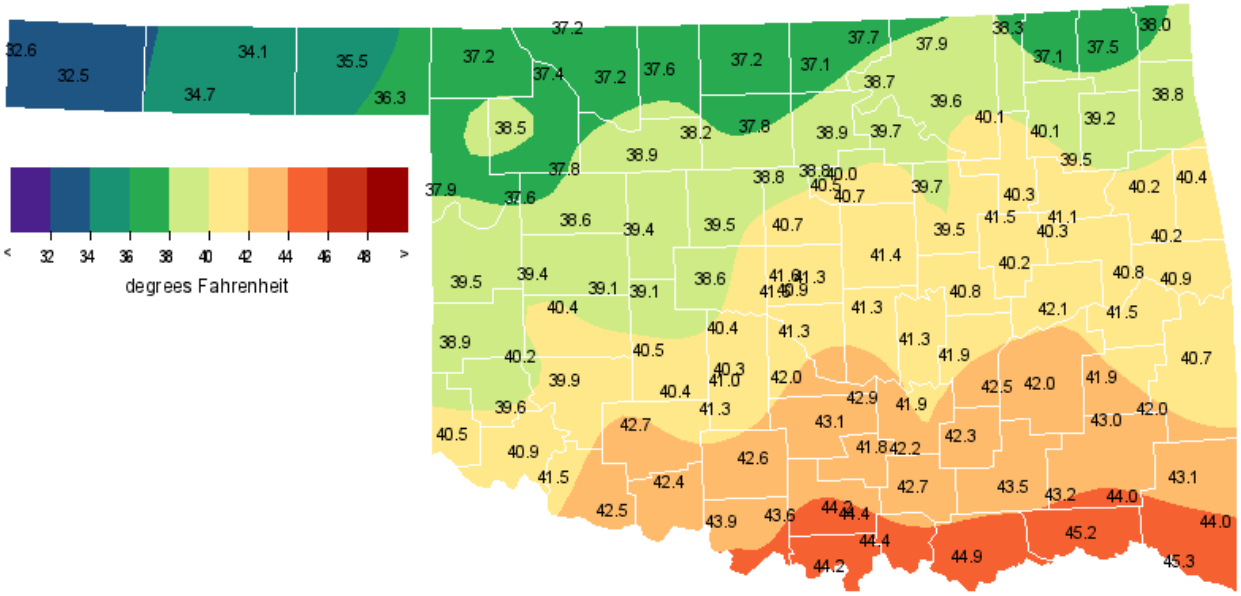
JANUARY 2013 PERCENT OF NORMAL PRECIPITATION



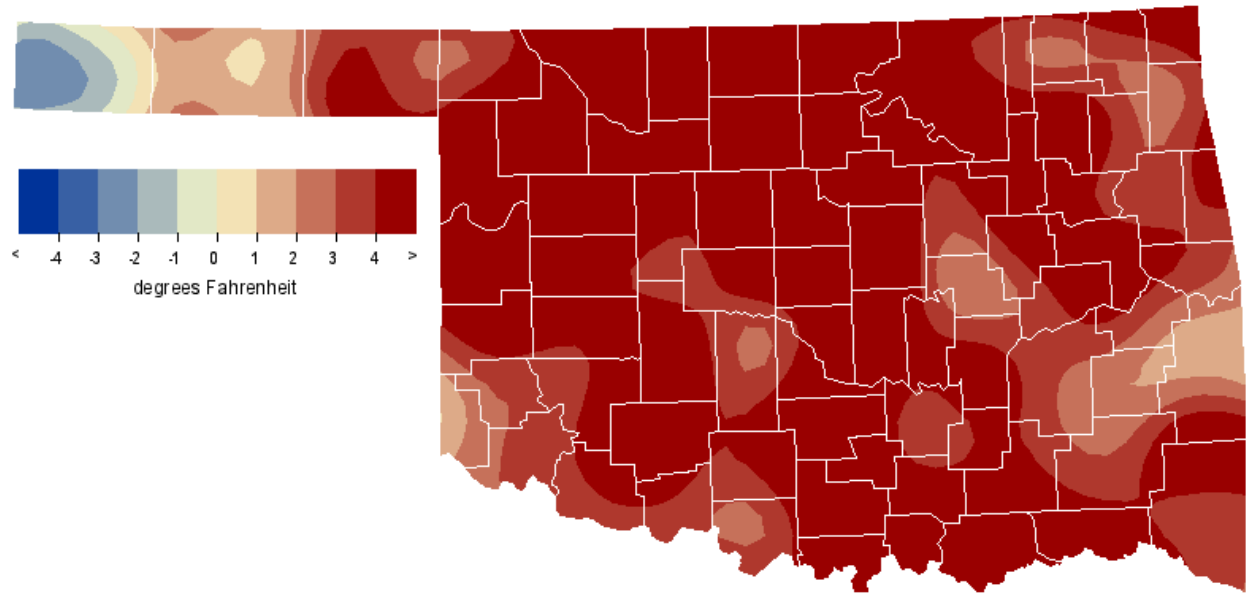
JANUARY 2013 AVERAGE SOIL MOISTURE AT 25CM



JANUARY 2013 AVERAGE TEMPERATURE



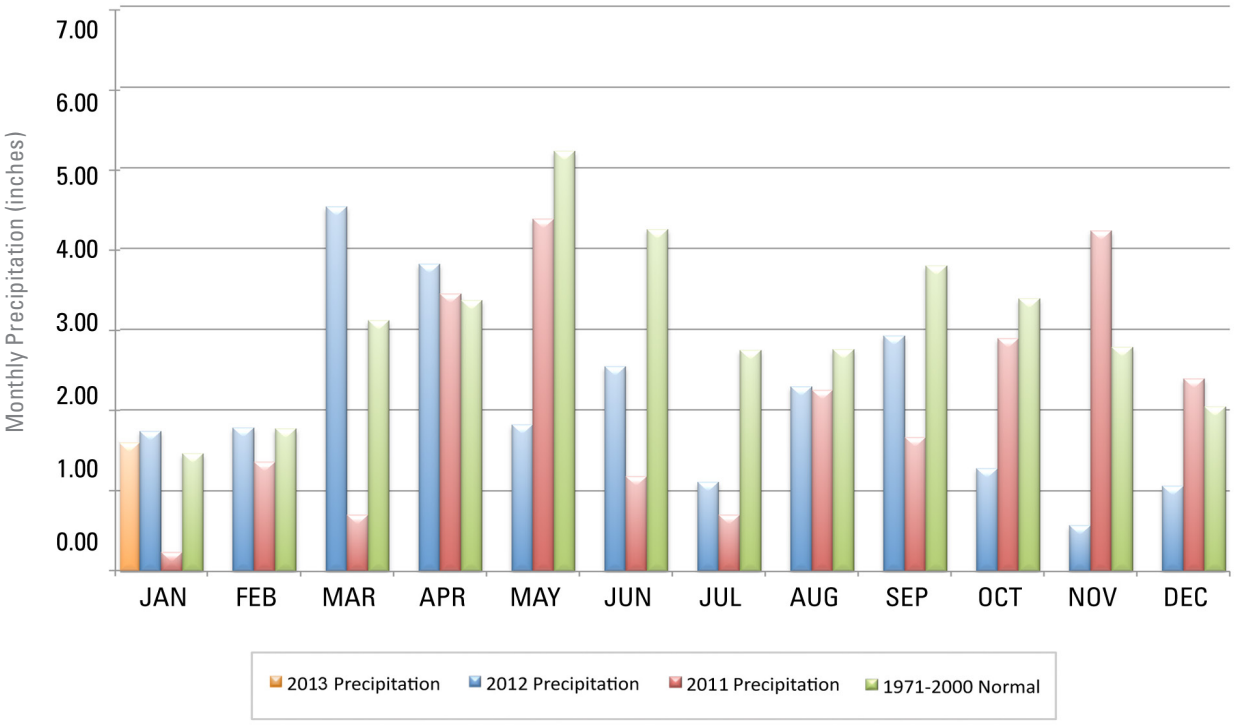
JANUARY 2013 DEPARTURE FROM NORMAL TEMPERATURE



MESONET MONTHLY SUMMARY FOR JANUARY 2013

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	38.0	77	27	11	13	837	0	.76	.52	10
Beaver	35.6	76	27	7	2	912	0	.80	.48	10
Boise City	32.6	74	23	-1	2	1004	0	.28	.17	10
Buffalo	37.2	78	27	11	4	862	0	.82	.60	10
Goodwell	34.7	73	27	9	2	938	0	.53	.36	10
Hooker	34.1	74	27	3	2	958	0	.59	.33	10
Kenton	32.5	74	23	-10	2	1007	0	.39	.08	7
Slapout	36.2	76	27	8	13	894	0	.73	.59	10
NORTH CENTRAL										
Alva	37.2	76	27	12	14	862	0	.83	.58	10
Blackwell	37.2	76	28	8	4	864	1	1.09	.80	29
Breckinridge	37.8	75	28	10	14	843	0	.96	.53	29
Cherokee	37.6	76	28	13	14	850	0	.49	.37	10
Fairview	38.9	74	28	14	14	808	0	.79	.52	10
Freedom	37.4	78	27	11	13	855	0	1.06	.79	10
Lahoma	38.2	75	28	14	14	829	0	.37	.27	10
May Ranch	37.2	78	27	9	13	862	0	.99	.74	10
Medford	37.2	75	28	13	14	861	0	.56	.44	10
Newkirk	37.8	75	28	12	14	844	1	2.95	2.67	29
Red Rock	39.0	76	28	13	14	808	3	1.50	1.35	29
Seiling	37.9	75	27	13	14	841	0	.94	.67	10
Woodward	38.5	77	27	10	13	823	0	.62	.50	10
NORTHEAST										
Bixby	40.3	76	28	15	16	766	1	2.10	1.22	29
Burbank	38.6	76	28	10	16	819	2	2.32	2.05	29
Claremore	40.1	75	28	15	2	772	1	1.96	1.05	29
Copan	38.3	75	28	13	16	828	0	1.83	1.56	29
Foraker	37.9	75	28	12	2	840	1	1.90	1.65	29
Inola	39.5	75	28	14	16	793	1	2.92	1.97	29
Jay	38.8	73	28	9	14	815	2	4.04	2.57	29
Miami	38.0	74	28	13	14	839	1	2.82	1.90	29
Nowata	37.2	75	28	9	16	864	1	2.12	1.66	29
Pawnee	39.8	76	28	11	16	785	3	1.44	1.28	29
Porter	41.1	74	28	18	14	742	0	3.09	1.75	29
Pryor	39.1	74	28	13	16	804	2	2.72	1.89	29
Skiatook	40.1	75	28	14	2	774	1	1.42	1.02	29
Vinita	37.6	75	28	11	2	853	2	1.87	1.18	29
Wynona	39.6	77	28	12	16	790	3	2.01	1.58	29
WEST CENTRAL										
Bessie	40.4	75	28	17	14	764	0	1.42	.63	10
Butler	39.4	77	27	15	16	794	0	1.20	.59	10
Camargo	37.6	77	27	11	16	850	0	.53	.35	10
Cheyenne	39.4	76	27	15	13	792	0	1.07	.63	10
Erick	38.8	77	27	16	2	811	0	1.06	.58	9
Putnam	38.7	73	28	13	14	815	0	.78	.43	10
Retrop	40.2	76	27	14	16	769	0	.91	.44	9
Watonga	39.3	72	28	16	13	795	0	1.18	.57	10
Weatherford	39.1	73	28	16	14	802	0	1.14	.65	29
CENTRAL										
Acme	41.3	76	28	15	16	738	3	1.27	.55	9
Bowlegs	41.2	75	28	15	16	739	3	1.46	.57	29
Bristow	39.5	76	28	11	16	794	4	1.79	1.19	29
Lake Carl Blac	38.7	76	28	9	16	817	3	1.04	.79	29
Chandler	41.4	76	28	17	16	734	4	1.66	1.03	29
Chickasha	40.3	76	28	13	16	767	3	1.49	.63	29
El Reno	38.6	74	28	12	16	819	0	.92	.33	10
Guthrie	40.7	75	28	14	16	755	3	1.32	.83	29
Kingfisher	39.5	75	28	13	16	792	0	1.13	.66	29
Marena	40.4	76	28	14	16	764	3	1.48	1.15	29
Minco	40.3	73	28	15	16	766	0	1.10	.48	10
Marshall	38.9	74	28	14	16	811	1	1.50	.91	29
Ninnekah	41.0	75	28	15	16	746	2	1.45	.56	29
Norman	41.3	74	28	17	16	737	2	1.00	.38	9
Oilton	39.6	76	28	12	14	790	4	1.76	1.32	29
OKC East	40.8	73	28	16	16	752	2	1.42	.86	29
OKC North	41.6	74	28	19	14	728	2	1.27	.75	29
OKC West	41.5	73	28	18	16	729	2	1.28	.80	29
Okemah	40.8	74	28	14	16	754	3	1.88	.84	29
Perkins	40.7	76	28	16	16	757	3	1.76	1.23	29
Shawnee	41.4	74	28	17	14	735	2	2.12	.95	29
Spencer	41.3	73	28	17	14	737	2	1.71	1.15	29
Stillwater	40.0	77	28	13	16	780	4	1.00	.71	29
Washington	42.0	75	28	17	16	716	3	1.44	.53	29
EAST CENTRAL										
Cookson	40.3	71	28	14	16	767	0	2.30	1.21	29
Eufaula	42.1	73	28	20	16	714	3	2.02	1.20	29
Haskell	40.3	75	28	16	16	765	0	2.56	1.32	29
Hectorville	41.5	74	28	17	16	733	3	1.92	1.11	29
Holdenville	41.9	72	28	17	16	719	1	1.86	.56	8
McAlester	42.1	72	28	14	16	714	3	2.46	.79	12
Okmulgee	40.2	75	28	12	16	772	3	2.52	.98	29
Sallisaw	40.9	76	28	16	14	749	1	2.77	1.96	29
Stigler	41.5	74	28	19	7	731	4	1.99	.87	29
Stuart	42.4	73	28	17	16	703	3	2.34	1.17	29
Tahlequah	40.2	72	28	15	16	770	0	2.48	1.28	29
Webbers Falls	40.8	73	28	19	16	751	0	1.91	1.26	29
Westville	40.4	70	28	17	16	763	0	2.46	1.52	29
SOUTHWEST										
Altus	40.9	79	28	18	16	748	0	.65	.47	9
Apache	40.5	76	28	16	14	761	0	1.56	.63	10
Fort Cobb	40.6	76	28	17	16	758	0	1.02	.46	10
Grandfield	42.5	81	28	19	14	703	5	.96	.46	29
Hinton	39.1	73	28	16	14	802	0	1.61	1.03	29
Hobart	39.9	77	28	16	16	778	0	.94	.51	9
Hollis	40.5	80	27	15	2	760	0	1.09	.80	9
Mangum	39.6	78	28	10	16	788	0	1.06	.72	9
Medicine Park	42.7	77	28	20	13	694	1	1.43	.66	10
Tipton	41.5	80	28	18	16	728	0	.62	.42	9
Walters	*****	***	***	***	***	****	****	*****	*****	***
SOUTH CENTRAL										
Ada	41.9	73	28	17	16	717	1	1.75	.49	12
Ardmore	44.4	75	28	20	16	644	5	1.62	.61	9
Burneyville	44.2	78	28	16	7	652	6	1.63	.72	9
Byars	42.8	74	28	17	16	691	3	1.23	.47	9
Centrahoma	42.3	74	28	14	16	708	3	2.39	1.15	29
Durant	44.9	74	28	22	16	628	4	2.27	.81	9
Fittstown	42.2	72	28	18	16	707	1	1.87	.55	29
Ketchum Ranch	42.6	76	28	16	16	696	3	1.07	.37	9
Lane	43.5	74	28	19	7	669	4	2.47	.82	12
Madill	44.4	76	28	17	16	645	5	2.45	.77	9
Newport	44.2	76	28	19	16	649	5	1.23	.57	9
Pauls Valley	43.0	75	28	16	16	685	4	1.16	.46	9
Ringling	43.6	77	28	17	16	666	4	1.08	.41	9
Sulphur	41.8	74	28	13	16	722	3	1.12	.30	9
Tishomingo	42.7	74	28	18	7	693	2	2.27	.81	29
Vanoss	*****	***	***	***	***	****	****	*****	*****	***
Waurika	43.9	80	28	16	16	660	5	.86	.27	10
SOUTHEAST										
Antlers	43.2	73	28	17	7	678	3	2.88	.84	12
Antlers	*****	***	***	***	***	****	****	*****	*****	***
Broken Bow	44.0	72	29	21	3	652	2	3.12	1.09	9
Clayton	43.1	73	28	18	16	685	4	2.66	1.11	29
Cloudy	44.0	71	28	23	14	652	0	2.78	.77	29
Hugo	45.2	73	28	23	16	618	4	3.49	1.32	12
Idabel	45.3	74	28	22	3	615	4	3.91	1.59	12
Mt Herman	43.1	69	29	20	3	680	1	4.45	1.90	12
Talihina	42.0	71	28	15	7	716	3	2.97	1.16	29
Wilburton	42.0	74	28	16	16	718	4	3.50	2.40	29
Wister	40.7	75	28	15	7	758	5	2.82	1.49	29

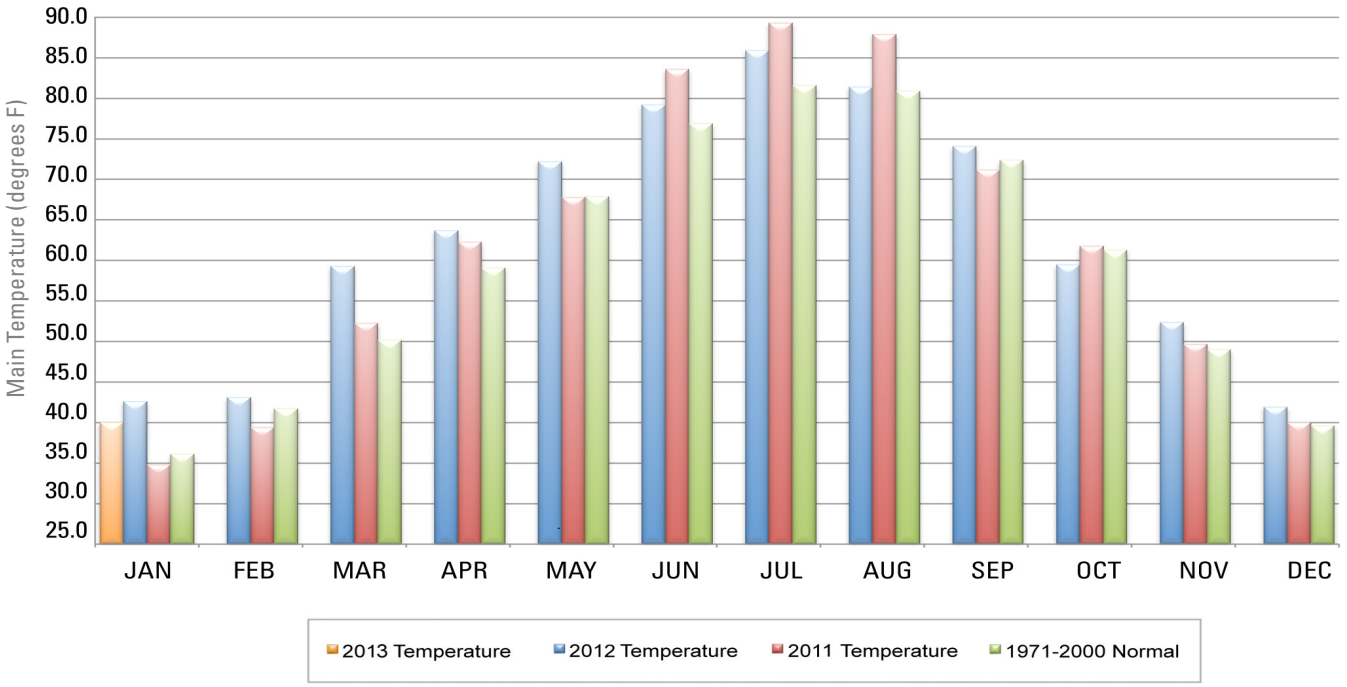
2011 - 2013 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



January 2013 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Jan-12
Panhandle	0.61	0.09	34th Wettest	1.92 (2005)	0.01 (1904)	0.54
North Central	1.01	0.08	39th Wettest	4.43 (1949)	0.00 (1912)	0.46
Northeast	2.30	0.73	31st Wettest	6.01 (1949)	0.01 (1986)	0.61
West Central	1.03	0.15	34th Wettest	4.08 (1949)	0.00 (1912)	0.75
Central	1.43	0.06	49th Wettest	6.18 (1949)	0.00 (1912)	1.40
East Central	2.28	0.15	49th Wettest	7.99 (1932)	0.04 (1986)	3.64
Southwest	1.05	-0.01	49th Wettest	4.89 (1949)	0.00 (1902)	0.96
South Central	1.65	-0.25	59th Wettest	6.85 (1932)	0.00 (1909)	3.88
Southeast	3.26	0.45	48th Wettest	11.08 (1932)	0.11 (2003)	5.33
Statewide	1.60	0.15	45th Wettest	5.23 (1949)	0.04 (1986)	1.89

2011 - 2013 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



January 2013 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Jan-12 (F)
Panhandle	35.1	2.1	47th Warmest	42.7 (2006)	19.5 (1930)	40.3
North Central	37.8	4.3	27th Warmest	44.6 (2006)	19.4 (1930)	39.8
Northeast	39.1	4.5	20th Warmest	46.0 (2006)	21.3 (1940)	42.0
West Central	39.2	4.2	29th Warmest	46.2 (2006)	20.8 (1930)	42.2
Central	40.6	4.4	22nd Warmest	47.4 (2006)	22.5 (1930)	43.0
East Central	41.1	3.8	30th Warmest	47.8 (2006)	24.8 (1940)	43.2
Southwest	40.9	3.4	31st Warmest	47.8 (1923)	24.2 (1930)	43.7
South Central	43.3	4.2	26th Warmest	49.5 (1923)	27.0 (1930)	45.4
Southeast	43.2	3.6	28th Warmest	49.4 (1952)	28.3 (1979)	43.7
Statewide	40.0	3.9	28th Warmest	46.4 (2006)	23.5 (1930)	42.6

RECORD EVENT REPORTS

Description	Day	Location	Record	Previous Record	Year
Daily Warmest Low Temperature Tied	28	Oklahoma City	60	60	1968

MESONET EXTREMES FOR JANUARY 2013

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	78	27th	Buffalo	-10	2nd	Kenton	0.82	Buffalo	0.60	10th	Buffalo
North Central	78	27th	Freedom	8	4th	Blackwell	2.95	Newkirk	2.67	29th	Newkirk
Northeast	77	28th	Wynona	9	14th	Jay	4.04	Jay	2.57	29th	Jay
West Central	77	27th	Butler	11	16th	Camargo	1.42	Bessie	0.65	29th	Weatherford
Central	77	28th	Stillwater	9	16th	Lake Carl Blackwell	2.12	Shawnee	1.32	29th	Oilton
East Central	76	28th	Sallisaw	12	16th	Okmulgee	2.77	Sallisaw	1.96	29th	Sallisaw
Southwest	81	28th	Grandfield	10	16th	Mangum	1.61	Hinton	1.03	29th	Hinton
South Central	80	28th	Waurika	13	16th	Sulphur	2.47	Lane	1.15	29th	Centrahoma
Southeast	75	28th	Wister	15	7th	Wister	4.45	Mt Herman	2.40	29th	Wilburton
Statewide	81	28th	Grandfield	-10	2nd	Kenton	4.45	Mt Herman	2.67	29th	Newkirk

FEBRUARY OUTLOOK

February is the warmest of the Oklahoma's three winter months, a product of the combination of gradually lengthening days - often heralding an illusory approach of spring - and the very real existence of the continuing winter. Recorded temperatures in Oklahoma during the second month of the year traverse a range of 126 degrees Fahrenheit, from 99 degrees at Arapaho on February 24, 1918, to -31 degrees at the Nowata Mesonet site on February 10, 2011. The latter thermometer reading is the state's all-time lowest temperature. Oklahoma's normal monthly temperature, based on data obtained from 1971 through 2000, is 42.3 degrees. Monthly values of normal daily maximum temperatures across the state range between 60.3 degrees along the Red River at Waurika and 49.5 degrees at Newkirk near the state's northern border. Normal daily minimum temperatures vary between 34.4 degrees at Waurika and 22.0 degrees in the Panhandle at Beaver. The monthly mean temperatures for February, compiled as a statewide average since 1892, have varied between a high of 50.7 degrees in 1954 and a low of 26.6 degrees in both 1899 and 1905.

Of all the other months, only January has a normal precipitation lower, when averaged statewide, than February's 1.77 inches. Southeastern Oklahoma's Idabel possesses the state's greatest precipitation normal during February at 3.60 inches. Kenton, in the shadow of Black Mesa, gains distinction as the state's driest reporting station during February with a normal total of 0.33 inch. The February statewide-averaged precipitation varies substantially, being bounded by a low of 0.18 inch attained 1996 and a high of, 4.66 inches in 1938. In contrast to the many stations that have suffered through February precipitation voids, Tuskahoma was treated to an excessive 13.21 inches during February 1945. Snow is an important part of the precipitation picture in northwestern Oklahoma. Helena and Woodward both average about 4.7 inches of snow during February, compared to less than one-half inch at stations in southeastern Oklahoma.

Oklahoma's extreme snowstorm of record was the blizzard of February 21-23, 1971. This blizzard buried northwestern Oklahoma under as much as three feet of snow, not accounting for drifts. Buffalo was the hardest hit, reporting 23 inches of snow on the 21st and a state-record snow depth of 36 inches by the morning of the 24th. The snow was driven by winds 30 to 50 miles per hour, producing drifts as high as 20 feet. Military cargo planes were used to airdrop hay to cattle stranded in the far-flung pastures of the region. Losses to agriculture were estimated at $2.1 million (1971 dollars). Lost livestock included approximately 11,000 cattle, 3,500 hogs, and 1,000 sheep. Buffalo reported a total of 39.5 inches of snow during the month (a state record for all months).

Tornadoes are not generally considered a February phenomenon, but a total of 44 February tornadoes have been recorded across the state since 1950, including six in 1975. Three people were killed on February 22, 1975, bringing the confirmed total of February tornado deaths in the state to nine, according to storm-by-storm death tolls compiled by Thomas P. Grazulis and published in the book "Significant Tornadoes: 1880-1989."

Temperature

Mean	42.3 degrees
Warmest February	1954, 51.8 degrees
Coolest February	1899, 27.9 degrees
Hottest recorded	99 degrees, Arapaho, February 24, 1918
Coldest recorded	-31 degrees, Nowata, February 10, 2011

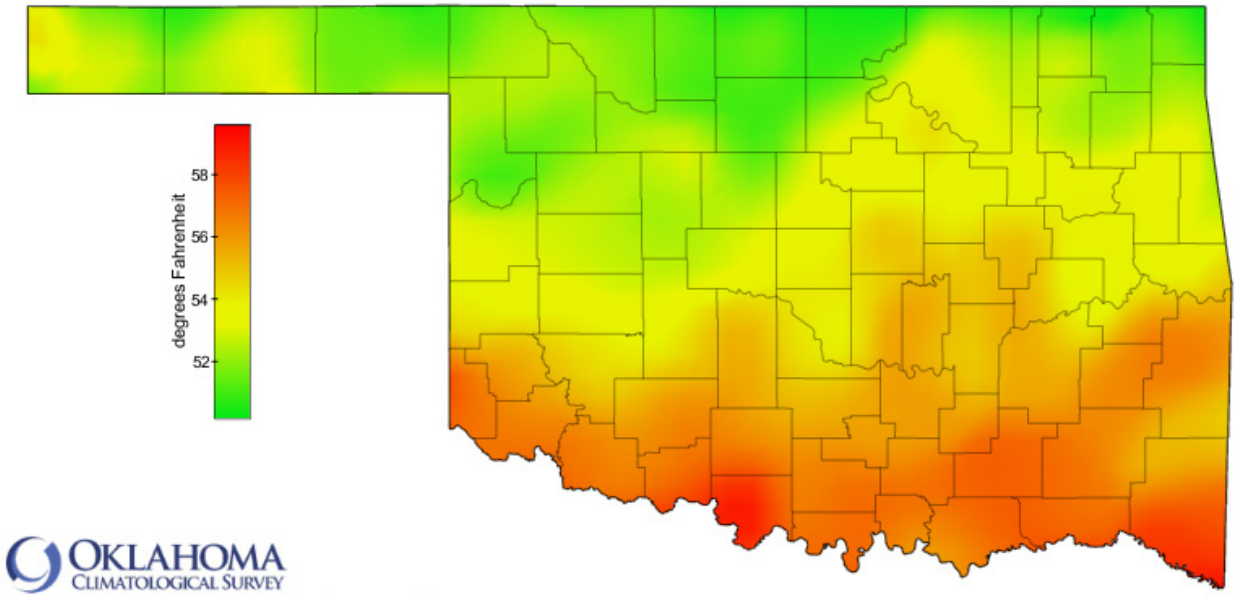
Precipitation

Mean	1.77 inches
Wettest February	1938, 6.44 inches
Driest February	1947 and 1996, 0.20 inches
Wettest location	Idabel, 3.60 inches
Driest location	Kenton, 0.33 inches
Most recorded	13.21 inches, Tuskahoma, 1945

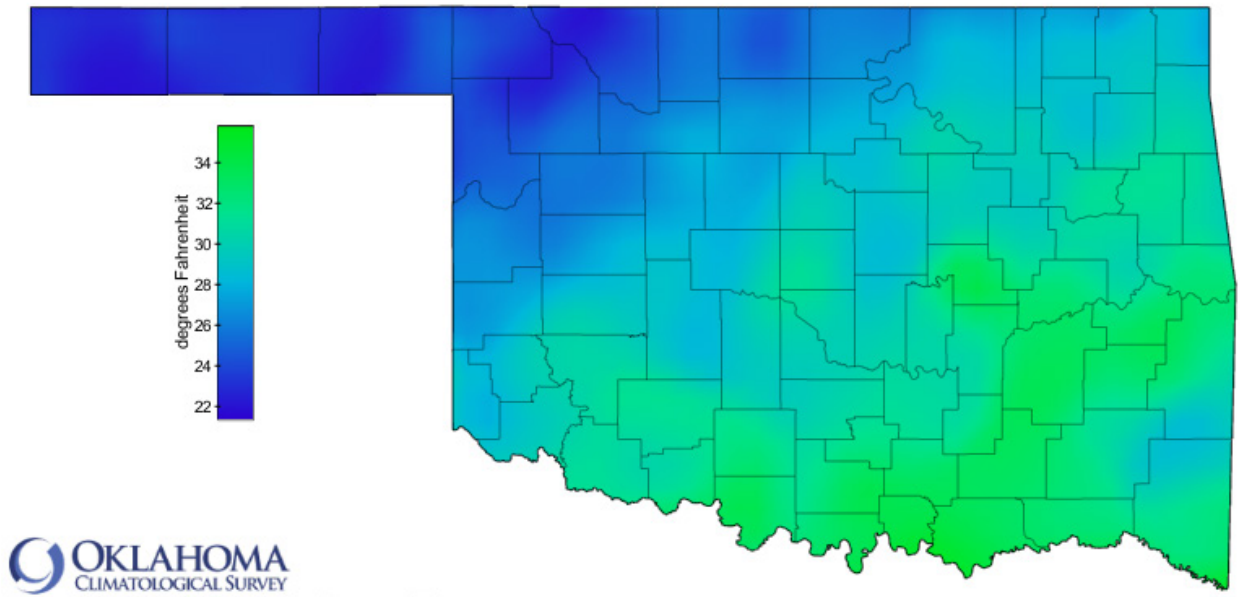
Tornadoes

Average February Tornadoes	0.8
Most	6 (1975, 2009)

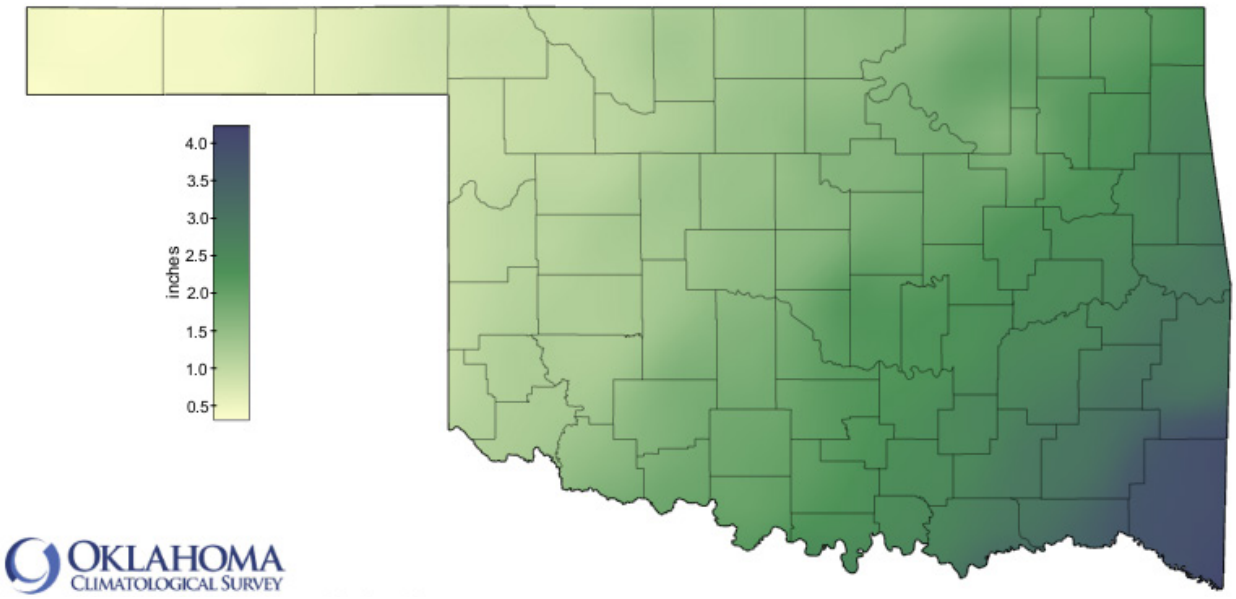
FEBRUARY NORMAL DAILY MAXIMUM TEMPERATURE (1981-2010)



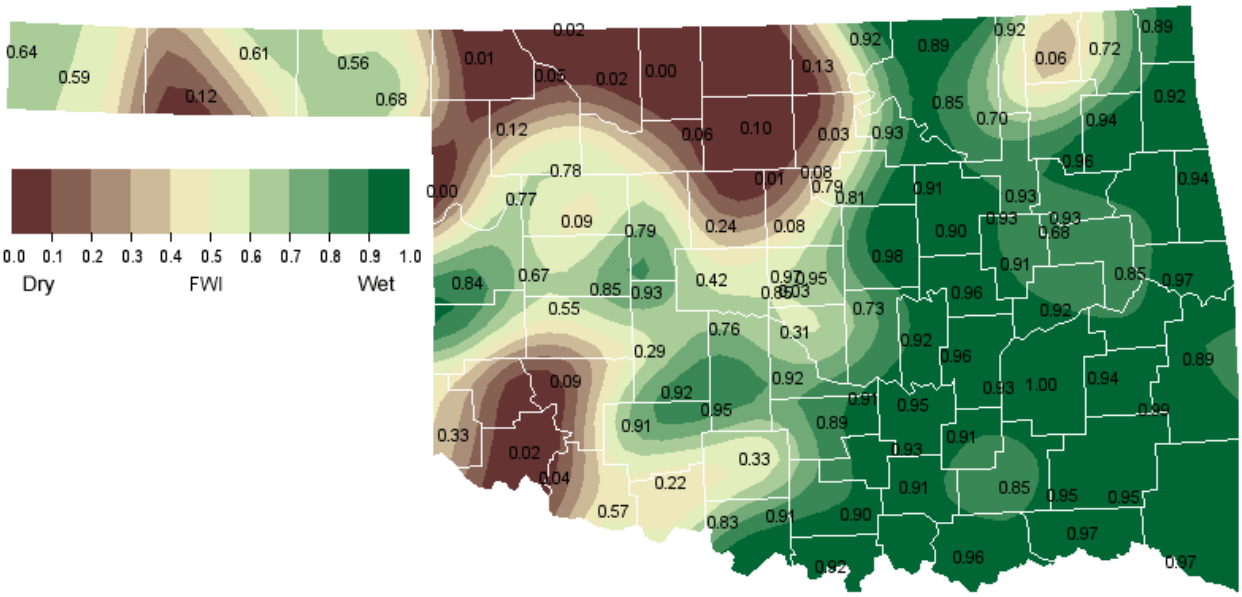
FEBRUARY NORMAL DAILY MINIMUM TEMPERATURE (1981-2010)



FEBRUARY NORMAL PRECIPITATION (1981-2010)



FEBRUARY 1, 2013 SOIL MOISTURE CONDITIONS AT 25CM



FEBRUARY 2013 DROUGHT INDICES

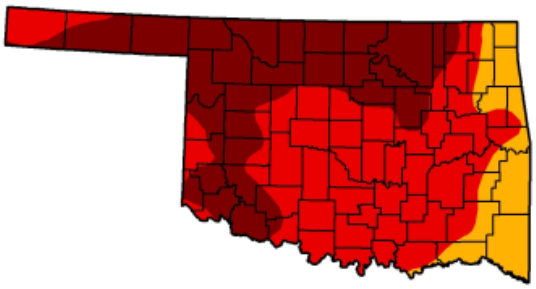
U.S. Drought Monitor

Oklahoma

February 12, 2013
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	100.00	87.00	39.58
Last Week (02/05/2013 map)	0.00	100.00	100.00	100.00	89.64	39.58
3 Months Ago (11/13/2012 map)	0.00	100.00	100.00	99.53	71.70	31.93
Start of Calendar Year (01/01/2013 map)	0.00	100.00	100.00	100.00	94.89	37.06
Start of Water Year (09/25/2012 map)	0.00	100.00	100.00	99.98	95.33	42.09
One Year Ago (02/07/2012 map)	24.91	75.09	66.53	41.82	18.57	3.78



Intensity:

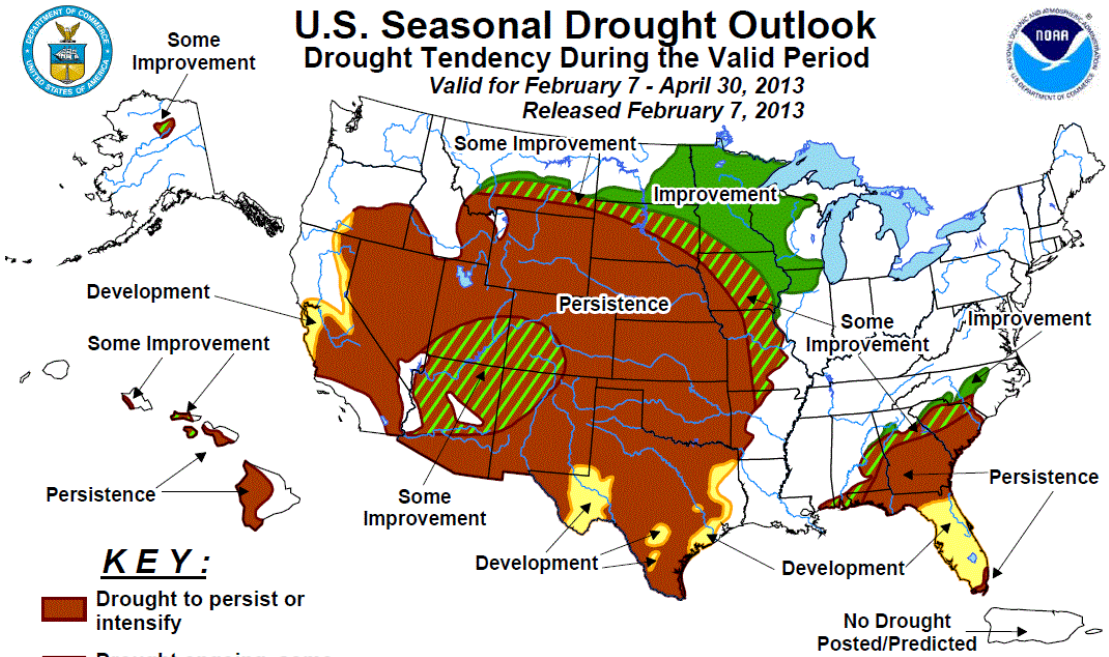
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

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

http://droughtmonitor.unl.edu

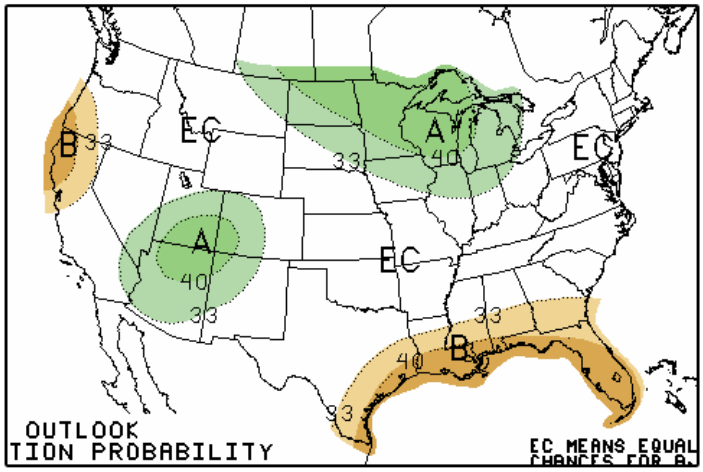
USDA · National Drought Mitigation Center

Released Thursday, February 14, 2013
Michael Brewer, National Climatic Data Center, NOAA



Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

FEBRUARY 2013 U.S. PRECIPITATION FORECAST



Percent Likelihood of Above or Below Average Precipitation*

- 5% - 10%
- 0% - 5%

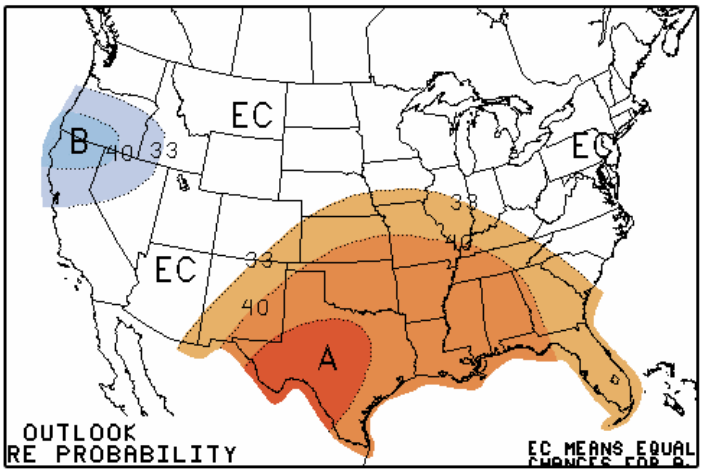
A = Above

- 0% - 5%
- 5% - 10%

B = Below

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

FEBRUARY 2013 U.S. TEMPERATURE FORECAST



Percent Likelihood of Above or Below Average Temperatures*

- 10% - 20%
- 5% - 10%
- 0% - 5%

A = Above

- 0% - 5%
- 5% - 10%

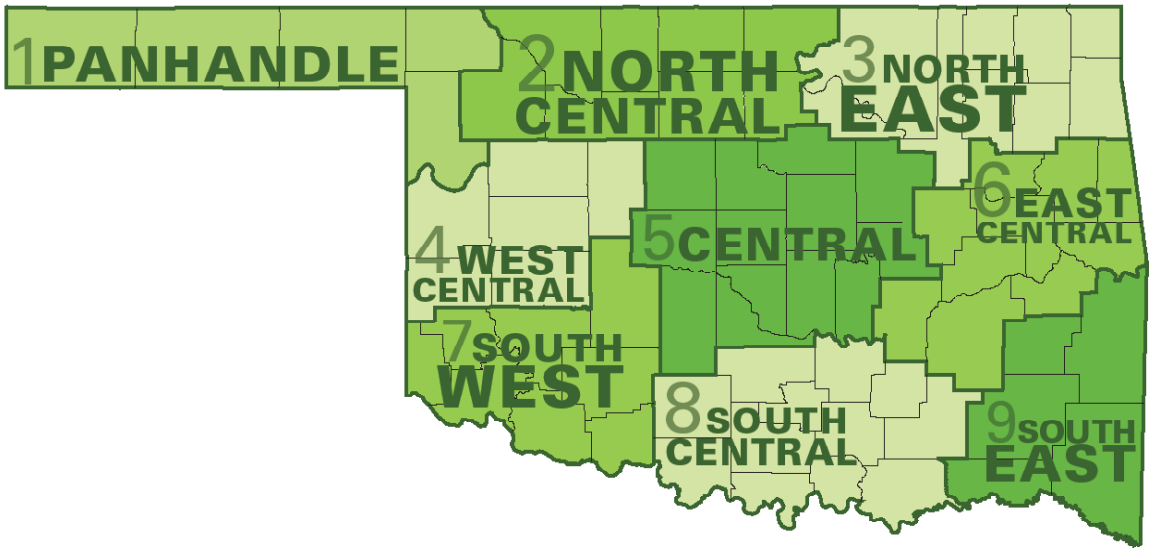
B = Below

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

FEBRUARY CLIMATE NORMALS

Climate Division	Max. Temperature (°F)	Min. Temperature (°F)	Avg. Temperature (°F)	Precipitation (inches)
1	53.3	23.8	38.6	0.64
2	51.4	25.1	38.3	1.23
3	52.9	28.8	40.9	1.96
4	53.2	26.9	40.1	1.09
5	53.9	29.2	41.6	1.77
6	54.4	31.2	42.8	2.35
7	55.9	29.0	42.5	1.36
8	56.8	31.9	44.4	2.21
9	57.3	31.9	44.6	3.13
Statewide	54.2	28.7	41.5	1.82

Oklahoma Climate Divisions



INTERPRETATION INFORMATION

MEAN DAILY TEMPERATURE: Calculated from an average of the daily maximum and minimum temperatures. Daily averages are summed for each day, and then divided by the number of valid data points – typically the number of days in the month. Although this may differ from the "true" daily average, it is consistent with historical methods of observation and comparable to the normals and extremes for stations and regions of the state.

DEGREE DAYS: Degree Days are calculated each day of the month for which there is a temperature report and the mean temperature for the day is less than (Heating Degree Days) or greater than (Cooling Degree Days) 65 degrees. Daily values are summed to arrive at a monthly total. HDD/CDD are qualitative measures of how much heating/cooling was required to maintain a comfortable indoor temperature. Missing observations may result in an artificially high or low value.

SEVERE WEATHER REPORTS: Only the most significant events are listed. Tornadoes of F2 or greater strength (on the 0-5 Fujita scale), hail of two inches diameter or greater, and wind speeds of 70 miles per hour or above are listed. National Weather Service defines storms as severe when they produce a tornado, hail of three-quarters inch or greater, or wind speeds above 57 miles per hour (50 knots). For additional reports, contact the Oklahoma Climatological Survey, Storm Prediction Center, or your local National Weather Service forecast office.

SOIL MOISTURE: The soil moisture variable displayed is the Fractional Water Index (FWI), measured at a depth of 25 cm. This unitless value ranges from very dry soil having a value of 0, to saturated soils having a value of 1.

ADDITIONAL RESOURCES

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

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

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

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

CLIMATE CALENDARS AND OTHER LOCAL WEATHER AND CLIMATE INFORMATION
Oklahoma Climatological Survey:
http://climate.mesonet.org or http://climate.ok.gov/

OKLAHOMA CLIMATOLOGICAL SURVEY

Oklahoma Climatological Survey is the State Climate Office for Oklahoma

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