Oklahoma Monthly Climate Summary

DECEMBER 2010

OKLAHOMA CLIMATOLOGICAL SURVEY

December tried to end 2010 in a tranquil manner after a year's worth of tumultuous weather. Mother Nature provided a punctuation mark instead as a strong tornado touched down near Westville in Adair County on New Year's Eve. The tornado eventually traveled into Arkansas, killing three near the small town of Cincinnati. A less violent hazard – drought – dug its heels into most of the state during the month as lack of precipitation contributed to the 32nd driest December since records began in 1895. Statewide average temperatures were a bit above normal as well but the month still finished as the 58th coolest on record. The tornado on the year's final day brought the preliminary total for the year to 102, the third-highest tally behind 1999's 145 and 1957's 107.

The somewhat warm and dry December contributed to the 43rd driest and 37th warmest year on record for Oklahoma. The statewide average temperature was 60 degrees, 0.4 degrees above normal. The northeast finished right at normal while west central Oklahoma was one degree above normal for the year. The rest of Oklahoma fell somewhere in between. The statewide average rainfall total was 31.99 inches, 4.7 inches below normal. Not all areas of the state finished equally, however. The southeast had a deficit of 12.29 inches for their 17th driest year on record while the Panhandle fell to 0.49 inches below normal, the 51st wettest year for that area.

December 2010 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	83°F	Hollis, Tipton; Waurika	15; 20
Low Temperature	0°F	Kenton	31
High Precipitation	4.03 in.	Mt. Herman	--
Low Precipitation	0.00 in.	Altus	--

PRECIPITATION

While southeastern Oklahoma managed to finish with a bit of a moisture surplus, most of the state collected a meager 20-40 percent of normal for the month. The statewide average ended with a deficit of over an inch with a total of 0.91 inches according to the Oklahoma Mesonet. The southeast led the state with an average total of nearly 4 inches, but the deficit in that area was also a little less than an inch. The southwest barely registered precipitation at all with an average total of 0.09 inches, a deficit of 1.29 inches and the eighth driest December on record for that part of the state. The Mesonet site at Mt. Herman led the way with 4.03 inches of rainfall while Altus went rainless for the entire month. In fact, most of the northwestern two-thirds of the state received less than a half-inch of rainfall.

TEMPERATURE

The statewide average temperature was 39.3 degrees, 0.3 degrees above normal. Regionally, much of eastern Oklahoma was 1-4 degrees below normal and much of western Oklahoma was 1-4 degrees above normal. The southwest enjoyed its 46th warmest December on record while the southeast experienced its 46th coolest. The highest temperature of the month, 83 degrees, was recorded at Hollis and Tipton on the 15th and at Waurika on the 20th. The coldest reading of zero degrees occurred on the 31st at Kenton and Boise City. The highest temperature recorded by the Mesonet during 2010 was 109 degrees at Freedom on August 2 and 13. On the cold side, -6 degrees was recorded at Buffalo on January 8 and at Vinita on January 10. Miami recorded the most rainfall with 48.26 inches while Boise City brought up the rear at 15.01 inches.

December 2010 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2010)
Month (December)	39.3°F	0.3°F	58th Coolest
Year-to-Date (Jan-Dec)	60.1°F	0.4°F	36th Warmest

Precipitation

	Average	Depart.	Rank (1895-2010)
Month (December)	0.91 in.	-1.11 in.	32nd Driest
Year-to-Date (Jan-Dec)	32.07 in.	-4.62 in.	43rd Driest

Depart. = departure from 30-year normal

DECEMBER DAILY HIGHLIGHTS

DECEMBER 1-6: The month's first six days were dry with no precipitation falling in the state. The first three days were warm with temperatures in the 60s and 70s by the third. A cold front on the fourth cooled things down to more seasonable levels

and strong winds added to lower wind chills. Winds shifted to the south on the sixth in response to another storm system approaching from the west.

DECEMBER 7-8: An upper-level low pressure system moved in from the west and brought some light rain and snow with it. Most amounts were light, although Vici in northwestern Oklahoma saw 2.1 inches of snow by the eighth. Skies began clearing the afternoon of the eight and temperatures rose into the 50s.

DECEMBER 9-16: Another long period with no precipitation, this stretch also saw temperatures rise into the 80s by the 15th. Cold fronts on the 11th and 16th helped keep temperatures variable in contrast to the precipitation.

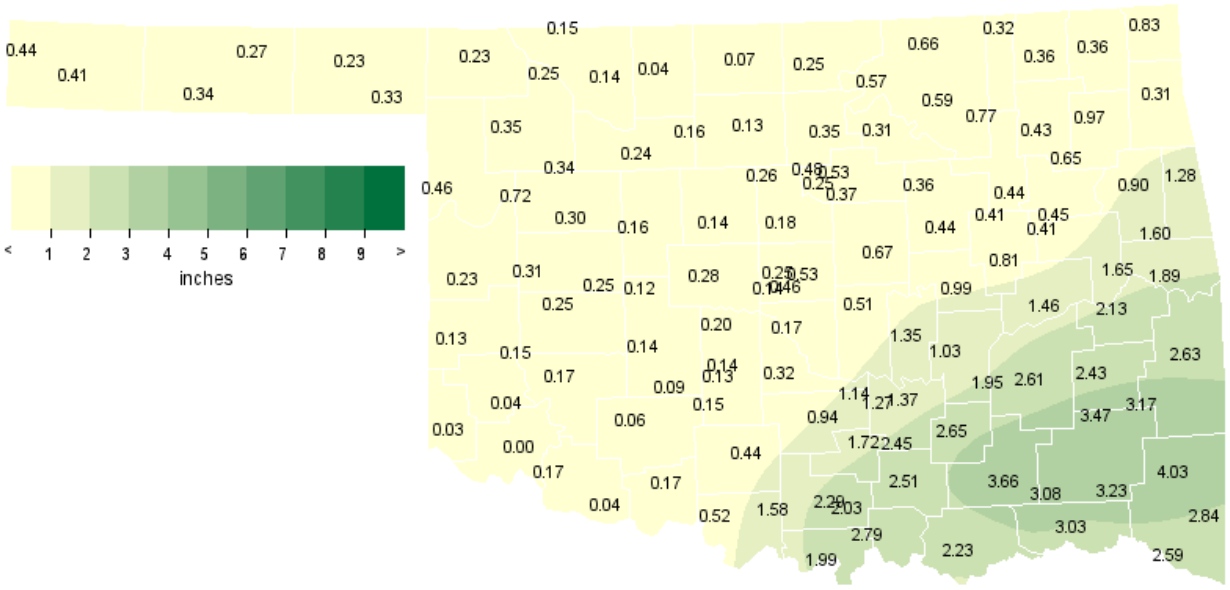
DECEMBER 17-22: A quick-moving upper-level low pressure system produced drizzle and light rain in parts of the state on the 17th with snow in far northwestern Oklahoma. The western Panhandle had 1-3 inches. Amounts were not significant elsewhere, however. Lows were in the 30s and 40s but temperatures had all risen into the 40s later that afternoon. Following that short brush with precipitation, temperatures began to warm over the next several days thanks to a warm front. Highs rose into the 80s south of that front on the 20th and 60s to the north. Oklahoma City broke its record high temperature for the 20th with 77 degrees. A weak cold front cooled things down on the 21st although temperatures remained quite seasonable on the 22nd.

DECEMBER 23-24: Beneficial rains of close to 2 inches fell in the southeastern part of the state on these two days thanks to an upper-level disturbance. Most of the state remained on the dry side, however, with temperatures rising to the 30s and 40s during the period.

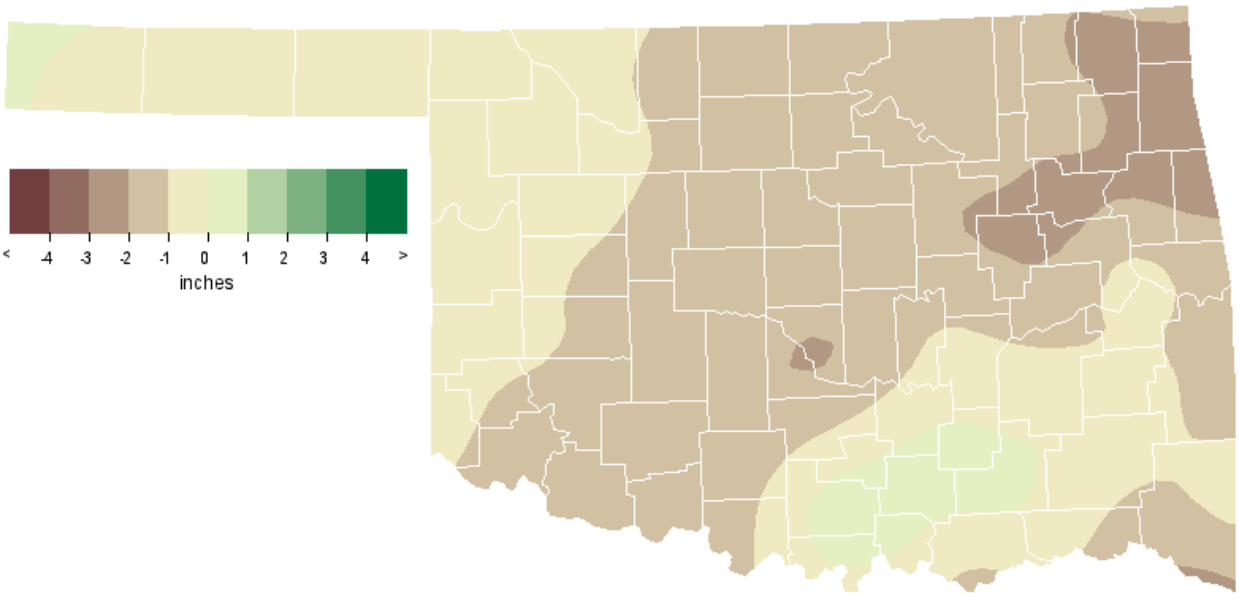
DECEMBER 25-27: A warming trend that occurred during this period allowed highs on the 27th to become a bit more seasonal in the 40s and 50s. Christmas Day was quite cold, however, with highs in the 30s and 40s and wind chills dropping into the single digits.

DECEMBER 28-31: Nice rains on the 28th and 29th brought the southeast's total for the month close to normal, but again most of the state remained on the dry side. The period was quite warm with strong southerly winds bringing moist air to the area and higher temperatures as well. A strong cold front approached the state on the 31st behind a weaker pacific front. As the weaker front passed through, it set off a round of severe storms in the far eastern sections of the state, including one storms that dropped a tornado near Westville in Adair County. The tornado traveled into Arkansas and killed three right across the border.

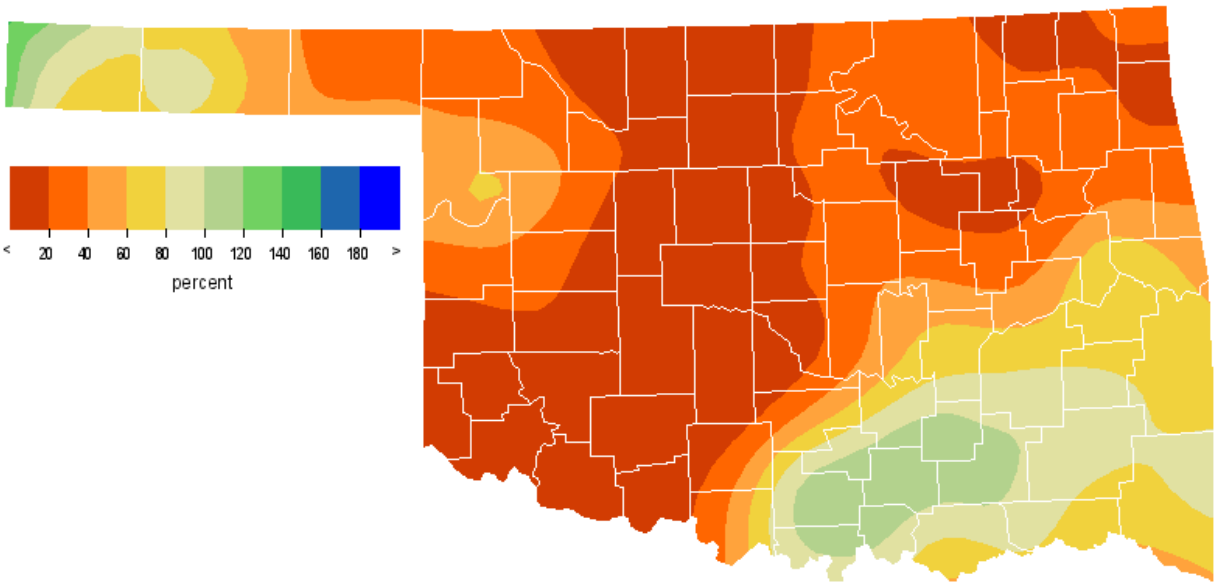
DECEMBER 2010 OBSERVED PRECIPITATION



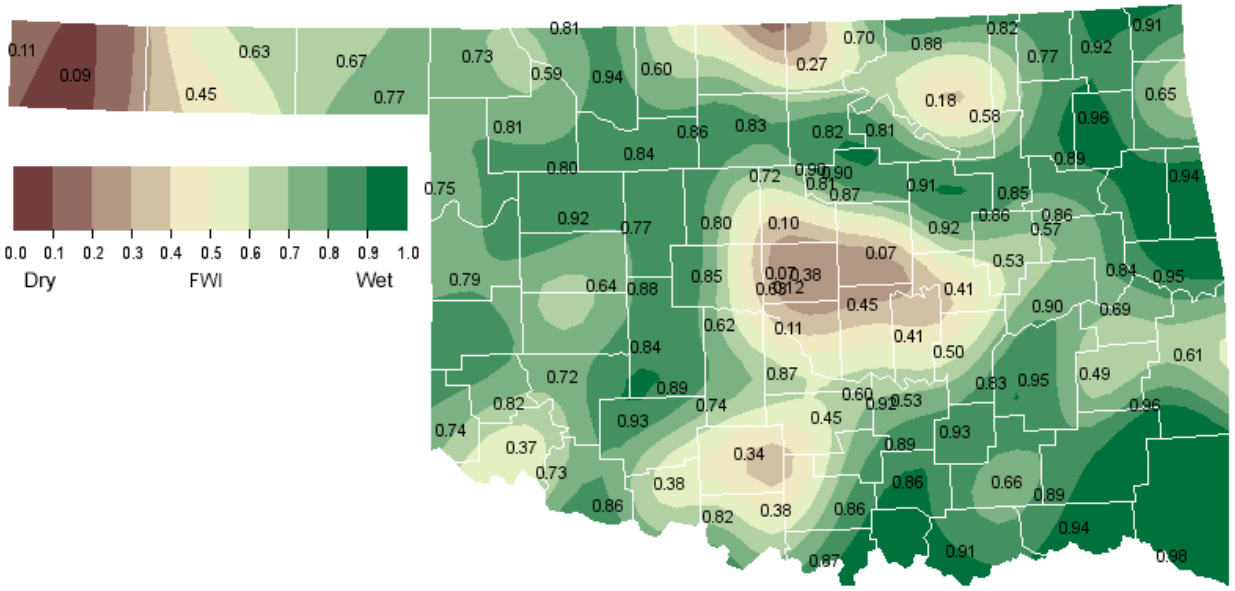
DECEMBER 2010 DEPARTURE FROM NORMAL PRECIPITATION



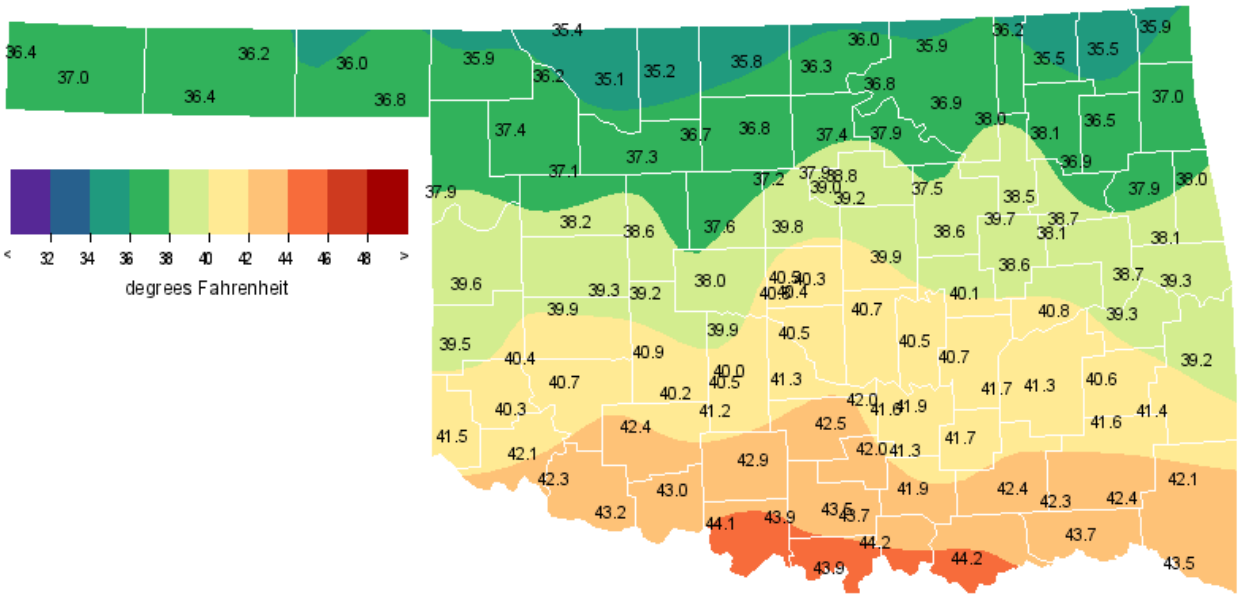
DECEMBER 2010 PERCENT OF NORMAL PRECIPITATION



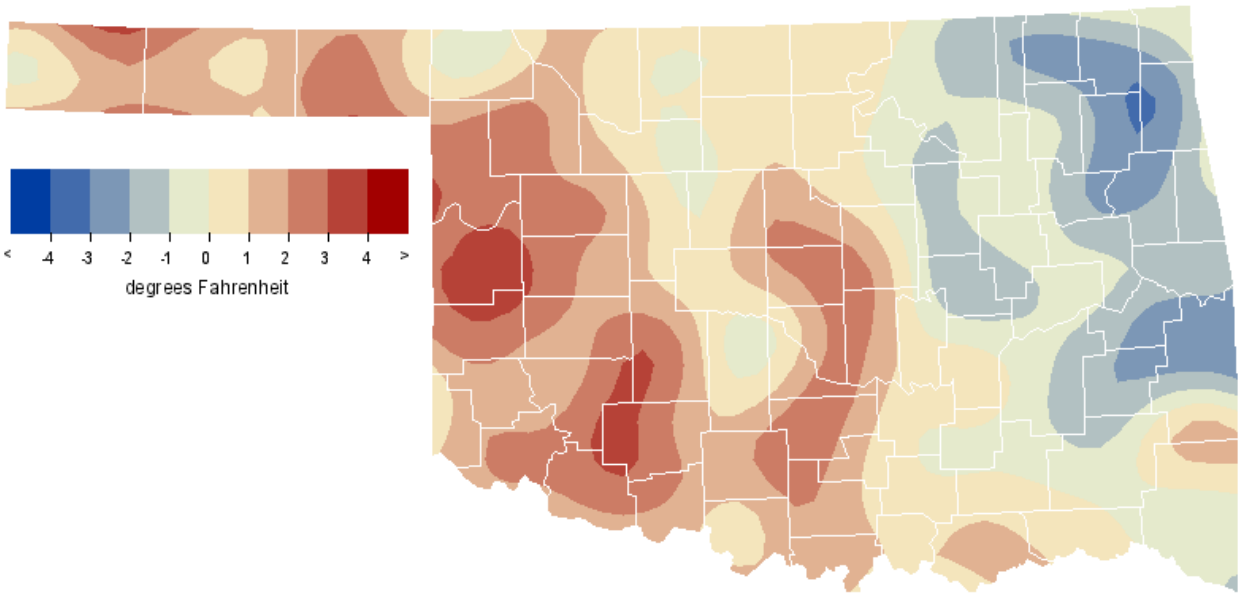
DECEMBER 2010 AVERAGE SOIL MOISTURE AT 25CM



DECEMBER 2010 AVERAGE TEMPERATURE



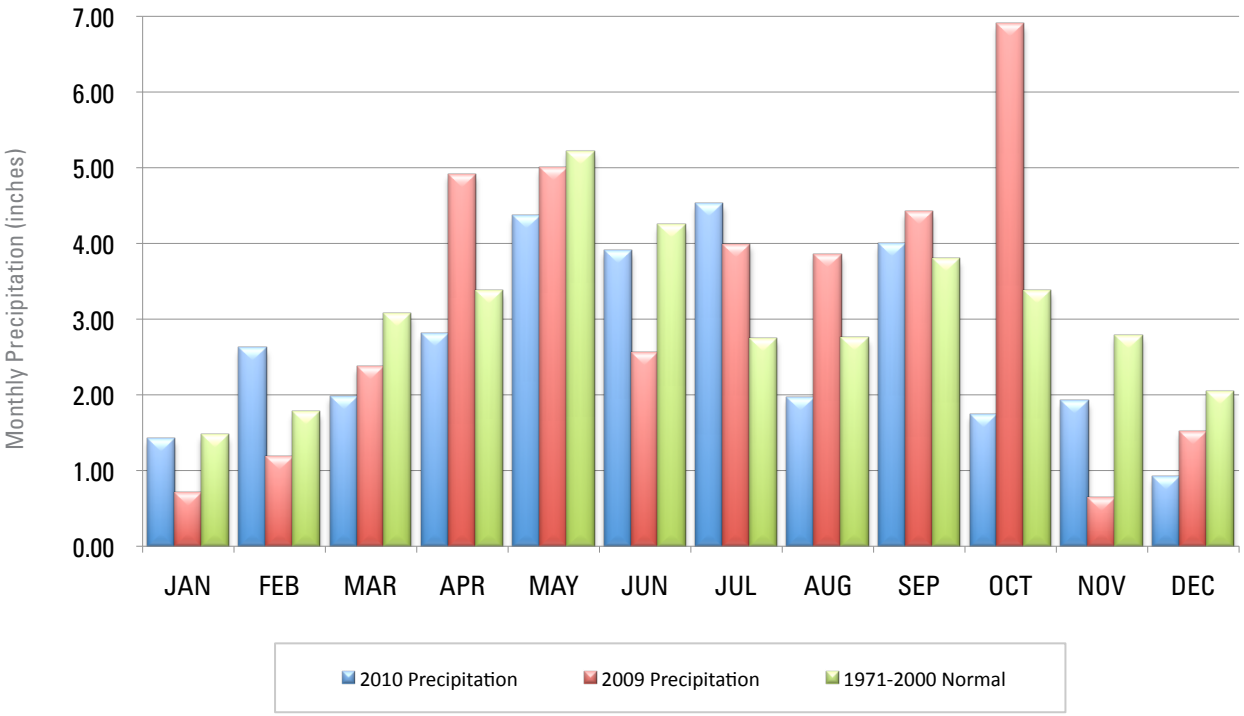
DECEMBER 2010 DEPARTURE FROM NORMAL TEMPERATURE



MESONET MONTHLY SUMMARY FOR DECEMBER 2010

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	37.9	69	3	11	31	841	0	.46	.36	17
Beaver	36.0	70	20	7	31	899	0	.23	.15	30
Boise City	37.0	74	3	0	31	869	0	.41	.23	19
Buffalo	35.9	71	20	8	26	903	0	.23	.09	30
Goodwell	36.4	71	3	2	31	886	0	.34	.23	17
Hooker	36.2	69	20	6	31	894	0	.27	.15	17
Kenton	36.4	73	3	0	31	887	0	.44	.29	19
Slapout	36.8	67	20	10	31	876	0	.33	.17	17
NORTH CENTRAL										
Alva	35.0	69	30	8	26	929	0	.14	.09	31
Blackwell	36.3	70	30	13	12	891	0	.25	.17	23
Breckinridge	36.8	69	30	11	31	874	0	.13	.12	23
Cherokee	35.2	69	30	9	26	924	0	.04	.03	31
Fairview	37.2	69	3	13	26	861	0	.24	.15	7
Freedom	36.2	70	20	10	26	893	0	.25	.11	31
Lahoma	36.6	68	30	12	26	879	0	.16	.13	7
May Ranch	35.4	70	20	11	26	918	0	.15	.13	31
Medford	35.8	69	30	9	31	907	0	.07	.03	31
Newkirk	36.0	70	30	13	13	899	0	*****	*****	***
Red Rock	37.4	71	30	14	13	854	0	.35	.27	23
Seiling	37.1	68	30	9	26	865	0	.34	.21	8
Woodward	37.4	71	20	11	26	856	0	.35	.22	8
NORTHEAST										
Bixby	38.5	71	30	16	27	822	0	.44	.28	31
Burbank	36.8	71	30	13	12	875	0	.57	.25	23
Claremore	38.6	71	30	14	13	818	0	.43	.25	31
Copan	36.1	71	30	12	27	896	0	.32	.18	31
Foraker	36.0	70	30	12	13	900	0	.66	.33	31
Inola	37.3	69	30	13	27	860	0	.65	.40	31
Jay	37.0	67	30	11	13	869	0	.31	.25	24
Miami	35.8	69	30	11	13	904	0	.83	.57	31
Nowata	35.5	70	30	9	27	914	0	.36	.20	31
Pawnee	37.9	71	30	14	6	841	0	.31	.14	31
Porter	38.7	70	30	15	13	815	0	.45	.23	29
Pryor	36.5	70	30	11	27	884	0	.97	.68	31
Skiatook	37.9	71	30	14	13	839	0	.77	.58	31
Vinita	35.5	68	30	9	13	914	0	.36	.17	24
Wynona	36.9	71	30	12	13	872	0	.59	.39	31
WEST CENTRAL										
Bessie	39.8	77	20	15	26	780	0	.25	.18	17
Butler	38.7	77	20	10	26	****	****	.31	.22	17
Camargo	36.9	67	30	10	26	****	****	.49	.36	17
Cheyenne	39.6	75	20	14	31	787	0	.23	.16	17
Erick	39.5	80	15	11	26	791	0	.13	.08	17
Putnam	38.2	71	20	12	26	831	0	.30	.15	17
Retrop	40.4	75	20	14	26	764	0	.15	.07	17
Watonga	38.5	70	20	14	26	821	0	.16	.08	17
Weatherford	39.3	72	20	14	26	797	0	.25	.22	17
CENTRAL										
Acme	41.1	76	20	9	26	741	0	.15	.13	17
Bowlegs	40.5	74	20	16	13	759	0	1.35	.56	29
Bristow	38.6	71	30	14	27	818	0	.44	.27	31
Lake Carl Blac	38.2	72	3	13	6	829	0	.48	.41	23
Chandler	40.0	73	3	17	13	776	0	.67	.51	31
Chickasha	40.1	76	20	11	26	773	0	.14	.08	17
El Reno	38.1	75	20	11	26	835	0	.28	.14	23
Guthrie	39.9	72	20	16	26	779	0	.18	.13	23
Kingfisher	37.8	72	20	10	26	843	0	.14	.09	23
Marena	38.9	72	3	17	6	808	0	.25	.13	23
Minco	39.9	76	20	14	26	779	0	.20	.13	17
Marshall	37.5	71	3	13	31	852	0	.26	.23	23
Ninnekah	40.6	77	20	11	26	758	0	.13	.06	17
Norman	40.8	77	20	14	26	751	0	.17	.05	23
Oilton	37.5	71	30	11	13	853	0	.36	.27	24
OKC East	40.8	75	20	14	26	751	0	.46	.18	31
OKC North	40.9	75	20	15	26	747	0	.25	.15	23
OKC West	41.2	75	20	18	26	738	0	.14	.09	23
Okemah	40.0	70	3	16	13	774	0	.99	.43	29
Perkins	39.2	71	3	16	13	801	0	.37	.18	31
Shawnee	40.7	75	20	18	13	752	0	.51	.13	8
Spencer	40.3	75	20	15	26	764	0	.53	.19	31
Stillwater	38.8	72	30	16	6	812	0	.53	.35	31
Washington	41.2	78	20	15	26	738	0	.32	.16	31
EAST CENTRAL										
Cookson	38.2	65	30	14	13	831	0	1.60	.88	29
Eufaula	40.8	70	3	19	13	751	0	1.46	.96	29
Haskell	38.1	70	30	13	13	833	0	.41	.22	29
Hectorville	39.7	71	30	16	13	784	0	.41	.20	24
Holdenville	41.1	72	20	16	13	741	0	1.03	.72	29
McAlester	41.3	71	3	17	13	734	0	2.61	1.78	29
Okmulgee	38.7	71	3	12	27	816	0	.81	.43	29
Sallisaw	39.3	70	3	15	13	797	0	1.89	1.21	29
Stigler	39.3	70	3	15	13	798	0	2.13	1.36	29
Stuart	41.7	70	3	17	13	723	0	1.95	1.13	29
Tahlequah	37.8	66	30	13	13	842	0	.90	.39	29
Webbers Falls	39.2	69	3	17	13	801	0	1.65	1.26	29
Westville	37.9	65	30	12	13	839	0	1.28	.77	31
SOUTHWEST										
Altus	42.0	76	20	13	26	712	0	.00	.00	1
Apache	40.2	76	20	11	26	770	0	.09	.07	17
Fort Cobb	40.9	77	20	15	26	748	0	.14	.07	17
Grandfield	43.2	80	15	14	26	674	0	.04	.03	17
Hinton	39.3	73	20	13	26	798	0	.12	.08	17
Hobart	40.8	77	20	13	26	751	0	.17	.13	30
Hollis	41.6	83	15	14	26	726	0	.03	.02	31
Mangum	40.3	78	20	9	26	766	0	.04	.02	30
Medicine Park	42.3	74	20	17	26	703	0	.06	.05	17
Tipton	42.3	83	15	14	26	702	0	.17	.12	17
Walters	42.9	80	15	13	26	684	0	.17	.14	17
SOUTH CENTRAL										
Ada	41.8	73	20	17	13	718	0	1.37	.64	29
Ardmore	44.1	76	20	20	26	649	0	2.03	.77	24
Burneyville	43.9	80	20	14	13	655	0	2.02	1.13	24
Byars	42.1	76	20	18	26	710	0	1.14	.41	29
Centrahoma	41.7	71	3	16	13	721	0	2.65	1.36	29
Durant	44.2	73	20	21	13	646	0	2.23	1.17	24
Fittstown	41.7	72	20	19	13	722	0	2.45	1.31	29
Ketchum Ranch	42.9	78	20	15	26	685	0	.44	.23	29
Lane	42.4	72	15	18	13	701	0	3.66	1.56	24
Madill	44.2	75	20	20	26	645	0	2.79	1.17	24
Newport	43.7	81	20	17	26	659	0	2.29	.80	24
Pauls Valley	42.5	79	20	16	26	697	0	.94	.44	29
Ringling	43.8	82	20	14	26	656	0	1.58	.69	29
Sulphur	42.1	72	15	16	26	711	0	1.72	.79	29
Tishomingo	41.9	71	20	19	13	716	0	2.51	.96	24
Vanoss	41.6	73	20	16	13	725	0	1.27	.64	29
Waurika	44.1	83	20	14	26	648	0	.52	.26	28
SOUTHEAST										
Antlers	42.3	72	15	16	13	702	0	3.08	1.31	24
Broken Bow	42.3	73	21	18	13	****	****	2.84	1.43	29
Clayton	41.6	70	15	16	27	726	0	3.47	1.67	29
Cloudy	42.4	70	15	20	13	699	0	3.23	1.67	29
Hugo	43.7	72	15	20	13	659	0	3.03	1.44	29
Idabel	43.5	74	15	19	13	668	0	2.59	.97	29
Mt Herman	42.1	70	21	19	13	709	0	4.03	2.66	29
Talihina	41.4	69	15	16	27	732	0	3.17	1.52	29
Wilburton	40.6	70	3	14	13	755	0	2.43	1.35	29
Wister	39.2	69	3	11	27	801	0	2.63	1.63	29

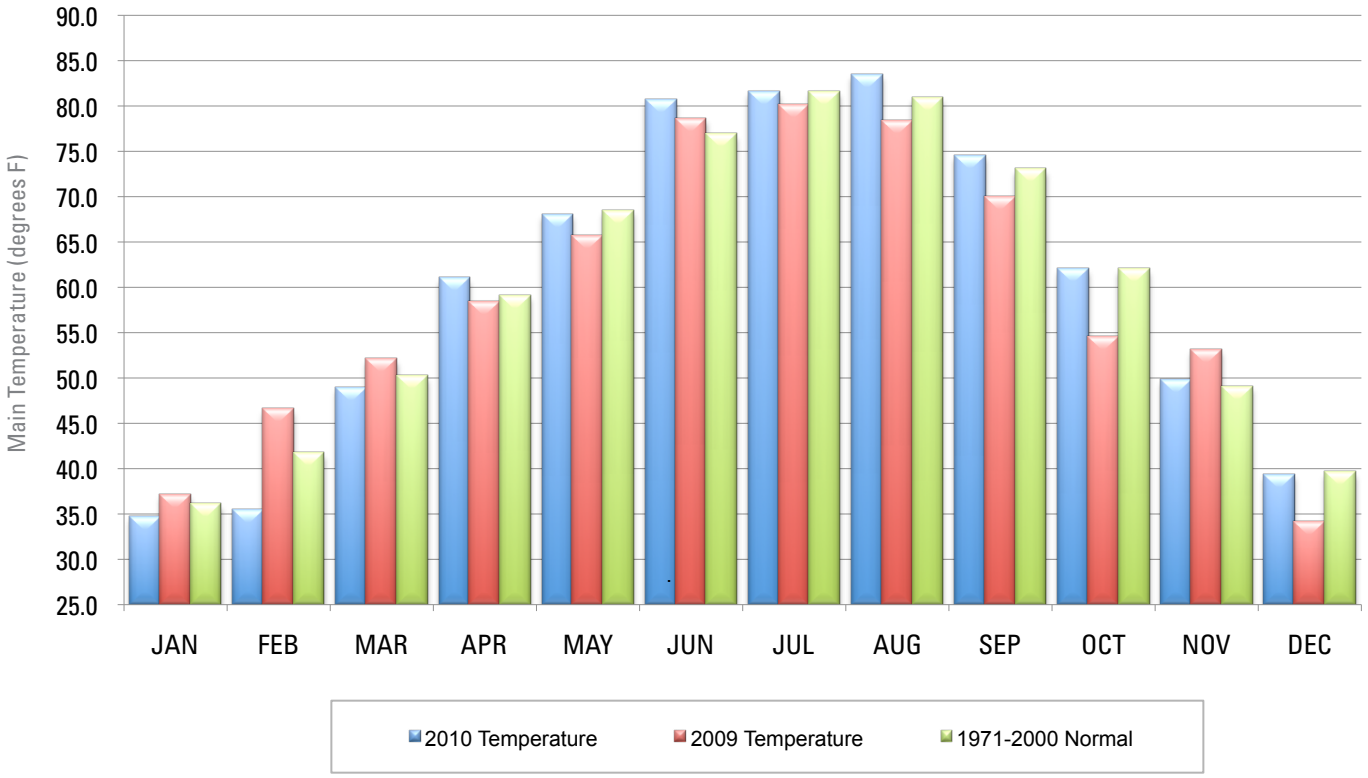
2009 AND 2010 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



December 2010 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Dec-09
Panhandle	0.34	-0.36	48th Driest	4.49 (2006)	0.00 (1922)	0.07
North Central	0.21	-1.09	11th Driest	4.55 (1913)	0.00 (1922)	0.21
Northeast	0.55	-1.73	15th Driest	6.72 (1984)	0.16 (1950)	1.65
West Central	0.28	-0.86	31st Driest	4.03 (1932)	0.00 (1908)	0.21
Central	0.39	-1.62	15th Driest	6.67 (1984)	0.00 (1908)	1.06
East Central	1.55	-1.43	39th Driest	8.95 (1987)	0.21 (1908)	2.36
Southwest	0.09	-1.29	8th Driest	4.94 (1991)	0.00 (1908)	1.50
South Central	2.01	-0.52	55th Wettest	7.01 (1932)	0.07 (1950)	2.88
Southeast	3.19	-0.88	54th Driest	12.76 (1971)	0.25 (1917)	4.02
Statewide	0.91	-1.11	32nd Driest	4.98 (1984)	0.10 (1950)	1.51

2009 AND 2010 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



December 2010 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Dec-09 (F)
Panhandle	36.6	1.6	44th Warmest	41.6 (1933)	22.6 (1983)	30.0
North Central	36.4	-0.1	50th Coolest	43.7 (1965)	21.9 (1983)	32.0
Northeast	37.0	-1.2	41st Coolest	45.1 (1931)	24.3 (1983)	32.9
West Central	39.4	2.0	41st Warmest	44.2 (1965)	24.0 (1983)	33.3
Central	39.6	0.3	58th Warmest	46.4 (1965)	25.3 (1983)	34.3
East Central	39.4	-1.2	40th Coolest	47.6 (1933)	27.4 (1983)	35.4
Southwest	41.4	1.6	46th Warmest	46.7 (1965)	27.5 (1983)	35.4
South Central	42.8	0.7	57th Warmest	48.5 (1965)	29.2 (1983)	36.5
Southeast	41.9	-0.5	46th Coolest	50.7 (1984)	30.7 (1983)	37.8
Statewide	39.3	0.3	58th Coolest	45.4 (1965)	25.8 (1983)	34.1

DECEMBER 2010 SEVERE WEATHER

Significant Tornadoes (EF2 or greater)

EF-rating	County	Day
3	Adair	31

RECORD EVENT REPORTS

Description	Day	Location	Record	Previous Record	Year
Maximum temperature	20	Oklahoma City	77	73	1966

MESONET EXTREMES FOR DECEMBER 2010

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	74	3rd	Boise City	0	31st	Kenton	0.46	Arnett	0.36	17th	Arnett
North Central	71	20th	Woodward	8	26th	Alva	0.35	Woodward	0.27	23rd	Red Rock
Northeast	71	30th	Wynona	9	27th	Nowata	0.97	Pryor	0.68	31st	Pryor
West Central	80	15th	Erick	11	26th	Erick	0.72	Camargo	0.36	17th	Camargo
Central	78	20th	Washington	9	26th	Acme	1.35	Bowlegs	0.56	29th	Bowlegs
East Central	72	20th	Holdenville	12	13th	Westville	2.90	Webbers Falls	1.78	29th	McAlester
Southwest	83	15th	Hollis	9	26th	Mangum	0.17	Hobart	0.14	17th	Walters
South Central	83	20th	Waurika	14	13th	Burneyville	3.76	Fittstown	1.56	24th	Lane
Southeast	74	15th	Idabel	11	27th	Wister	4.03	Mt. Herman	2.66	29th	Mt Herman
Statewide	83	20th	Waurika	0	31st	Kenton	4.03	Mt. Herman	2.66	29th	Mt Herman

JANUARY OUTLOOK

The weather in Oklahoma during January, Oklahoma's coldest and driest month, is marked by many and rapid variations. Cold fronts move through the state on a regular basis, bringing air from colder regions of the earth, but cold weather rarely lasts for more than a few days at a time. The north or northwest winds that spread the colder air typically give way to a day or so of calm and sunshine, followed by a return to the prevailing southerly winds which dominate the state's weather throughout the year. The state is located within the range of the winter meandering of the jet stream. Oklahoma's proximity to both the warm waters of the Gulf of Mexico to the southeast and the mountain barrier to the west enhances the potential for the development of winter storms beneath the jet. The Gulf provides moisture and is a source of thermal energy that interacts with the areas of low pressure, which are initiated under the jet stream east of the mountains. This interaction often results in the development of winter storms. Many of the winter storms in the eastern half of the country are born in Oklahoma.

Temperature

Mean	36.8 degrees
Warmest January	1923 , 47.5 degrees
Coolest January	1930, 24.9 degrees
Warmest location	Waurika, 41.9 degrees
Coolest location	Turpin, 30.7 degrees
Hottest recorded	92 degrees, Cloud Chief, January 31, 1911
Coldest recorded	-27 degrees, Watts, January 18, 1930

According to National Weather Service cooperative network data from 1971 through 2000, the statewide-averaged normal temperature for the month is 36.8 degrees. Normal temperatures across Oklahoma range from 41.9 degrees at Waurika in the south to 30.7 degrees at Turpin in the eastern panhandle. Normal daily maximum temperatures vary between 54.0 degrees at Waurika, near the Red River at Oklahoma's southern border, down to 41.9 degrees at Newkirk, near the state's northern border. Normal daily minimum temperatures range from 30.8 degrees at Okemah to 16.7 degrees at Turpin. The coldest January temperature ever recorded in the state is -27 degrees, recorded at Watts on January 18, 1930. At the other extreme, Cloud Chief reported a daily maximum temperature of 92 degrees on January 31, 1911. The warmest and coldest Januarys, averaged statewide, were 47.5 degrees in 1923 and 24.9 degrees in 1930, respectively.

Precipitation

Mean	2.04 inches
Wettest year	1984, 4.98 inches
Driest year	1980, 0.07 inches
Wettest location	Smithville, 5.19 inches
Driest location	Goodwell, 0.34 inches
Most recorded	18.13 inches, Bear Mountain Tower, 1971

Tornadoes

Average January Tornadoes	0.2
Most	4 (1967)

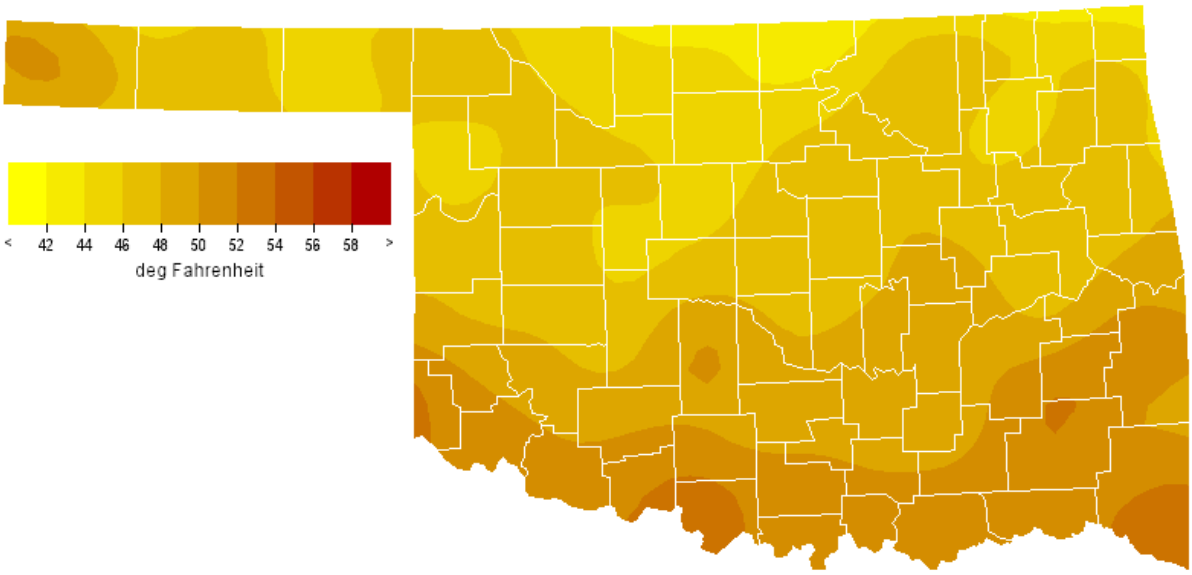
Oklahoma's normal monthly precipitation during January, averaged across the state, is 1.46 inches. Normal monthly precipitation for the month ranges from 3.49 inches in the southeast at Broken Bow to 0.29 inch in the panhandle at Goodwell. Most of the precipitation falls as rain, although snow, sleet, and freezing rain are all observed. The statewide-averaged normal snowfall (including sleet) is 2.4 inches, most of which falls in the northern half of the state. The panhandle town of Boise City averages 7.0 inches of snow during January. On average, snowfalls of at least one inch occur on 2.5 January days at Boise City. The wettest January in the state's weather record is 1949, when the statewide average was 5.23 inches. The driest January was 1986, when the state's rain gauges collected an average of only 0.04 inches of precipitation. Smithville was deluged with 13.85 inches of precipitation during January 1950.

Snowfall records are not as reliable as those for temperature and total precipitation (which includes water obtained from melted snow), but the greatest January snowfalls appear to have been recorded in 1905, 1930, 1949, 1988, 1990, and 2001. Statewide information is somewhat sketchy regarding the 1905 event, but it is known that Fort Reno recorded a cumulative depth of 24.5 inches of snow over the course of

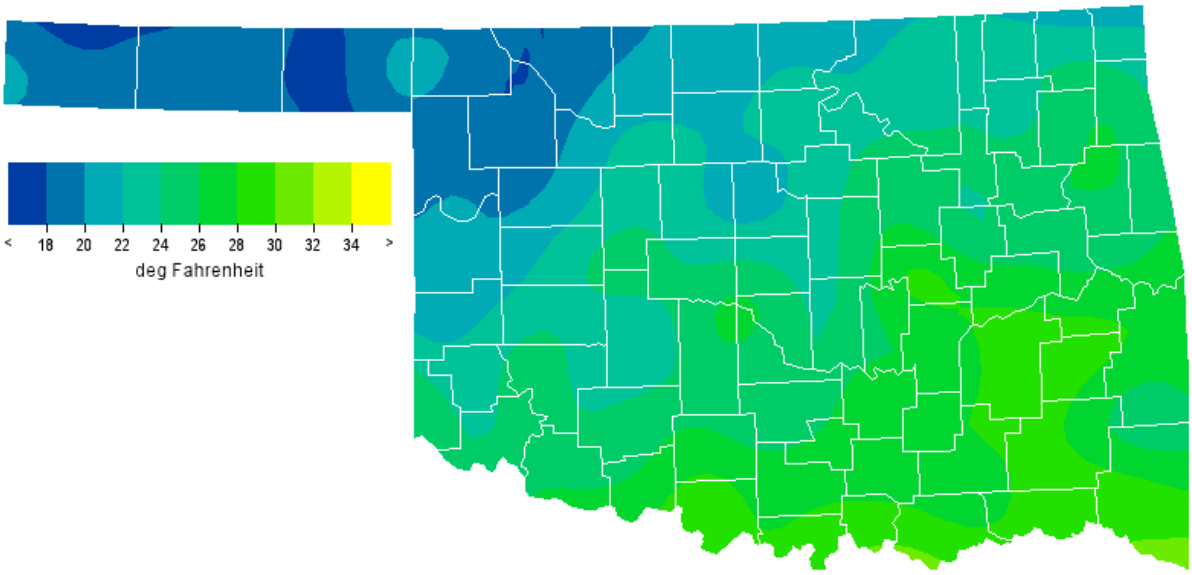
the month. In January 1930, noted above for its extreme cold, 25.0 inches of snow fell at Jefferson, and the state's reporting stations averaged 11.7 inches for the month. The reported January 1949 snowfall totals include 30.1 inches at Union City and 25.3 inches at Ponca City. In 1988, most of the state was blanketed by 10 inches of snow (16 to 18 inches in some locales) in a major snowstorm that came on the heels of an ice storm during the previous month. Goodwell reported 16 inches on snow on January 19, 1990, accumulating 18 inches over a two-day period, in a snowstorm whose Oklahoma extent was mainly confined to the panhandle. The state record for January monthly snowfall is 32.7 inches, set at Kenton in 2001. Nearly half of that total (16 inches) was reported on the 16th.

Tornadoes are not usually a part of the January weather in Oklahoma, but the month is not immune to them. Reasonably reliable counts of tornadoes in the state are available since 1950. During that time, 12 tornadoes have occurred during January, including 4 each in 1957 and 1967. On January 4, 1917, an F3 tornado (severe damage, estimated wind speeds of 158-206 miles per hour) struck a Choctaw boarding school at Vireton (13 miles northeast of McAlester), killing 16 students and injuring 10 others.

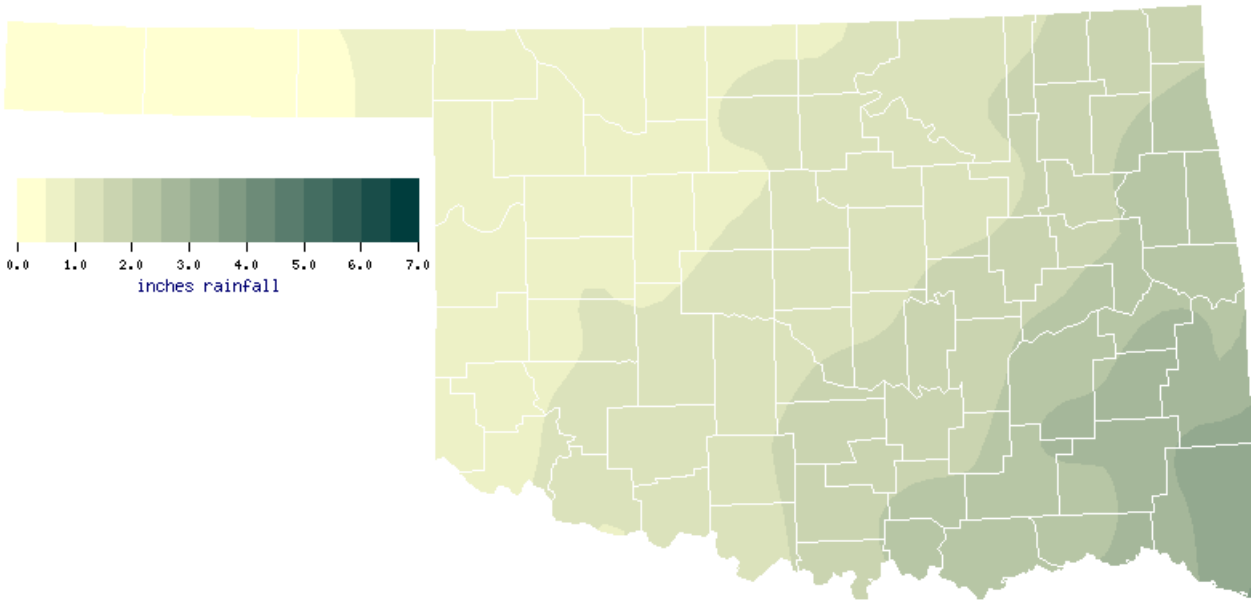
JANUARY NORMAL DAILY MAXIMUM TEMPERATURE (1971-2000)



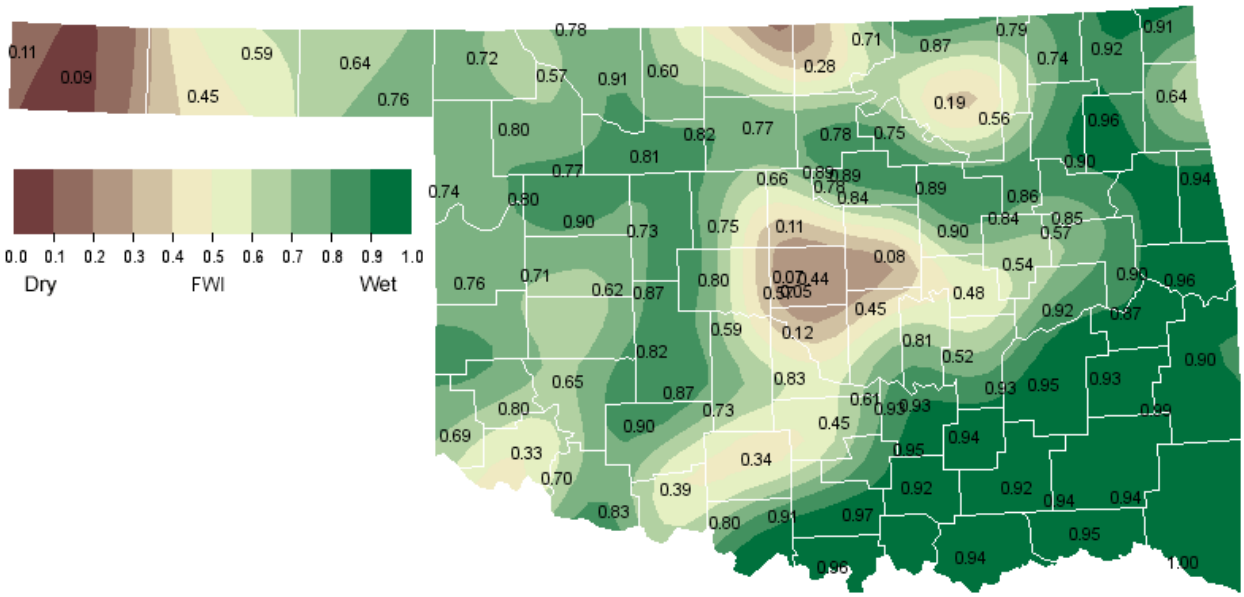
JANUARY NORMAL DAILY MINIMUM TEMPERATURE (1971-2000)



JANUARY NORMAL PRECIPITATION (1971-2000)



JANUARY 1, 2011 SOIL MOISTURE CONDITIONS AT 25CM



JANUARY 2011 DROUGHT INDICES

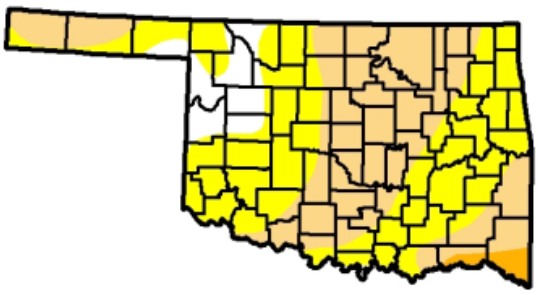
U.S. Drought Monitor

January 4, 2011
Valid 7 a.m. EST

Oklahoma

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	8.81	91.19	44.01	1.85	0.00	0.00
Last Week (12/28/2010 map)	13.82	86.18	47.90	1.50	0.00	0.00
3 Months Ago (10/05/2010 map)	66.29	33.71	4.21	0.00	0.00	0.00
Start of Calendar Year (12/28/2010 map)	---	---	---	---	---	---
Start of Water Year (09/28/2010 map)	66.28	33.72	4.21	0.00	0.00	0.00
One Year Ago (12/29/2009 map)	100.00	0.00	0.00	0.00	0.00	0.00



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://drought.unl.edu/dm

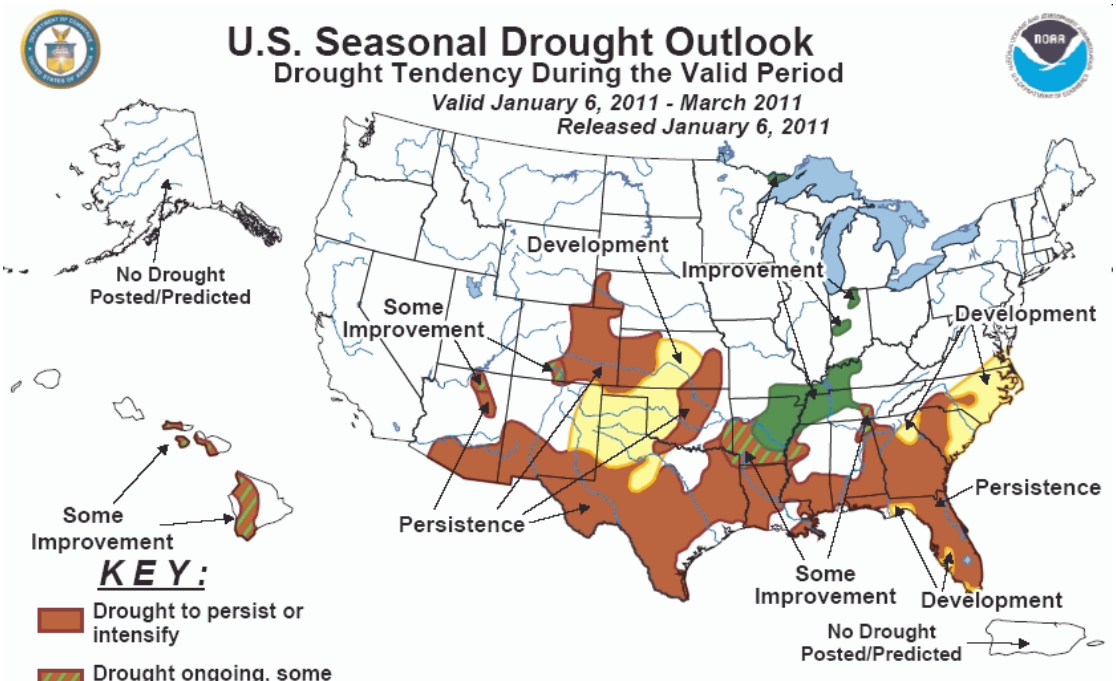
USDA · National Drought Mitigation Center

Released Thursday, January 6, 2011
National Drought Mitigation Center

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period

Valid January 6, 2011 - March 2011
Released January 6, 2011

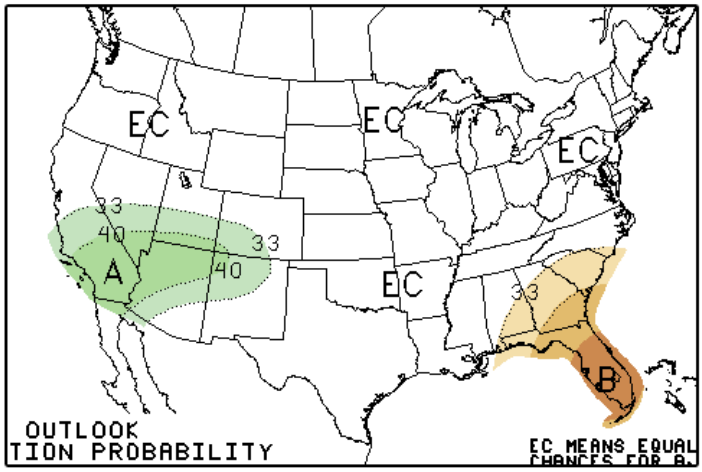


KEY:

- Drought to persist or intensify
- Drought ongoing, some improvement
- Drought likely to improve, impacts ease
- Drought development likely

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.

JANUARY 2011 U.S. PRECIPITATION FORECAST



Percent Likelihood of Above or Below Average Precipitation*

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

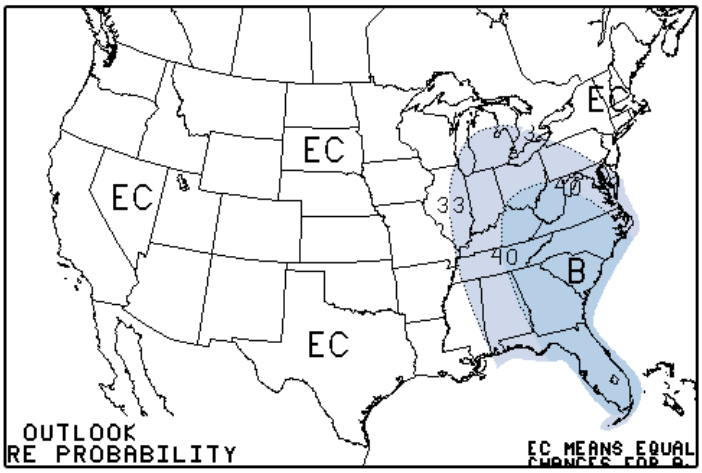
A = Above

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

B = Below

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

JANUARY 2011 U.S. TEMPERATURE FORECAST



Percent Likelihood of Above or Below Average Temperatures*

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

A = Above

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

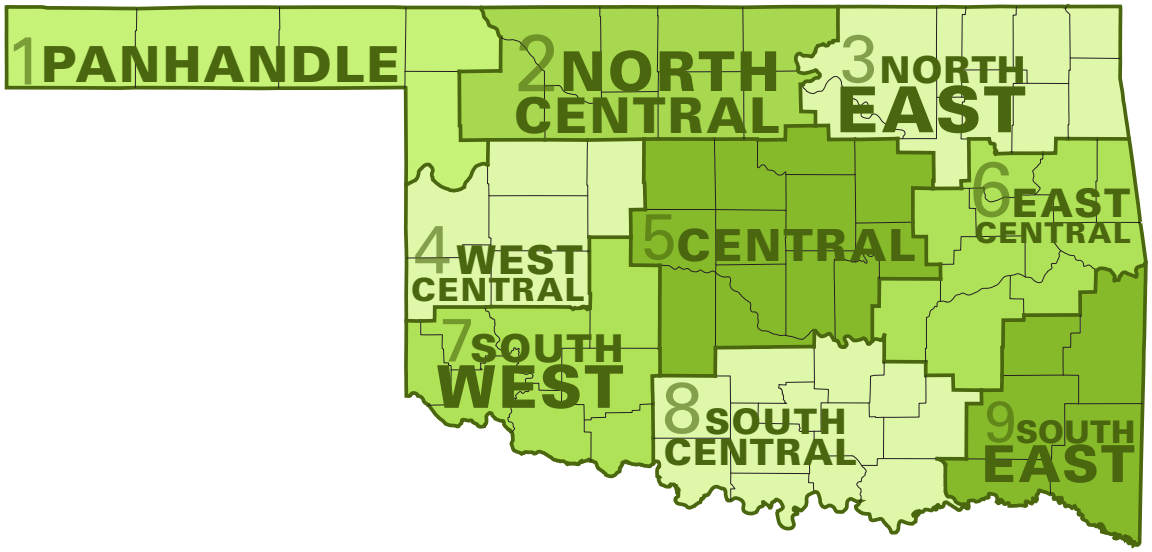
B = Below

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

JANUARY CLIMATE NORMALS

Climate Division	Max. Temperature (°F)	Min. Temperature (°F)	Avg. Temperature (°F)	Precipitation (inches)
1	47.3	19.2	33.3	0.51
2	44.7	20.5	32.6	0.95
3	46.3	24.0	35.2	1.58
4	46.9	22.4	34.6	0.83
5	47.5	24.5	36.0	1.33
6	48.0	26.4	37.2	2.10
7	49.7	24.2	37.0	1.08
8	50.4	27.2	38.8	1.91
9	51.3	27.7	39.5	2.81
Statewide	47.9	24.1	36.0	1.51

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

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