Oklahoma Monthly Climate Summary

DECEMBER 2009

OKLAHOMA CLIMATOLOGICAL SURVEY

An historical Christmastime blizzard dominated the weather stories during December, an otherwise dry and cold month. The statewide average temperature ranked as the 10th coolest on record, while the statewide average precipitation ranked as 57th driest. The blizzard struck on Christmas Eve, pounding the state with sleet, freezing rain, snow and winds gusting to over 60 mph. Oklahoma City recorded 13.5 inches of snow, breaking their record for the 24th as well as storm-total and 24-hour snowfall records. The snow was heaviest in central and northeastern Oklahoma, along and to either side of the I-44 corridor. The freezing rain that fell in southwestern Oklahoma combined with the strong winds to produce approximately $2 million in damages to electrical utility infrastructure and left thousands without power during the storm. Preliminary reports indicate at least nine people lost their lives due to the storm. The year ended as the 37th coolest on record and the 31st wettest, a result of an exceptionally cool and wet second half of the year.

December 2009 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	4°F	Butler	13
Low Temperature	-2°F	Kenton, Goodwell	9 10
High Precipitation	5.71 in.	Cloudy	--
Low Precipitation	0.03 in.	Slapout	--

PRECIPITATION

The statewide average precipitation total finished about half of an inch below normal at 1.51 inches according to preliminary estimates from the Oklahoma Mesonet. That average does not include snow that had not yet melted, however. Southwestern and south central Oklahoma were the two areas that managed to finish above normal for the month, although both by less than a half of an inch. The highest precipitation amount for the month was recorded at Cloudy with nearly 6 inches. The lowest total was found at Slapout with a paltry 0.03 inches. Several stations in the Panhandle and northwestern Oklahoma registered less than a tenth of an inch for the month. For the year, the statewide average was more than an inch above normal. Generally, the eastern half of the state was much above normal while the west was below normal. The southeast climate division finished more than 12 inches above normal, the eighth wettest year for that area. In contrast, the Panhandle finished more than 5 inches below normal, the 17th driest year for that region of the state.

TEMPERATURE

A multitude of cold fronts ensured another cool month across the state. The statewide average temperature was nearly 5 degrees below normal, and all areas were ranked between the 8th- and 16th-coolest on record. The lowest temperature of the month, -2 degrees, was recorded by the Oklahoma Mesonet sites at Kenton and Goodwell on the ninth and 10th, respectively. The highest temperature of 74 degrees occurred at Butler on the 13th. The warmest station for the month was Idabel with an average temperature of 39.6 degrees. The coldest station was Boise City with an average temperature of 28.4 degrees. The year ended at more than a half of a degree below normal.

December 2009 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2009)
Month (December)	34.1°F	-4.9°F	10th Coolest
Year-to-Date (Jan-Dec)	59.1°F	-0.6°F	37th Coolest

Precipitation

	Average	Depart.	Rank (1895-2009)
Month (December)	1.51 in.	-0.51 in.	57th Driest
Year-to-Date (Jan-Dec)	37.96 in.	1.27 in.	31st Wettest

Depart. = departure from 30-year normal

DECEMBER DAILY HIGHLIGHTS

DECEMBER 1-5: The first couple of days of December were wet and cool with rain showers in southern Oklahoma. A cold front on the second also brought a few instances of moderate snow. Up to an inch fell in the south only to melt quickly in the above-freezing air. Temperatures throughout this period were mainly in the 30s and 40s with lows in the teens and 20s. Highs rose into the 40s and 50s with the return of southerly winds on the fifth. The winds were pumped up ahead of a deepening low pressure system in the Texas Panhandle.

DECEMBER 6-10: A cold front moved into the state on the sixth and kept the weather cold for the next five days. Highs in the 40s and 50s were eventually replaced with below-freezing temperatures for the most part. Light drizzle and freezing

drizzle caused problems for most of the eighth before turning to a bit of light snow later that night. Another strong cold front reinforced the cold air late on the eighth. That dropped the low temperatures to a record low of 1 degree at Gage and -1 degree at Buffalo on the 10th. A modest warm up occurred that afternoon as the cold dome of air moved off to the east. Highs managed to warm into the 30s over the state.

DECEMBER 11-13: A warming trend borne upon strong southerly winds brought a welcome respite from the cold. Temperatures by the 13th had warmed into the 60s and 70s ahead of another strong cold front.

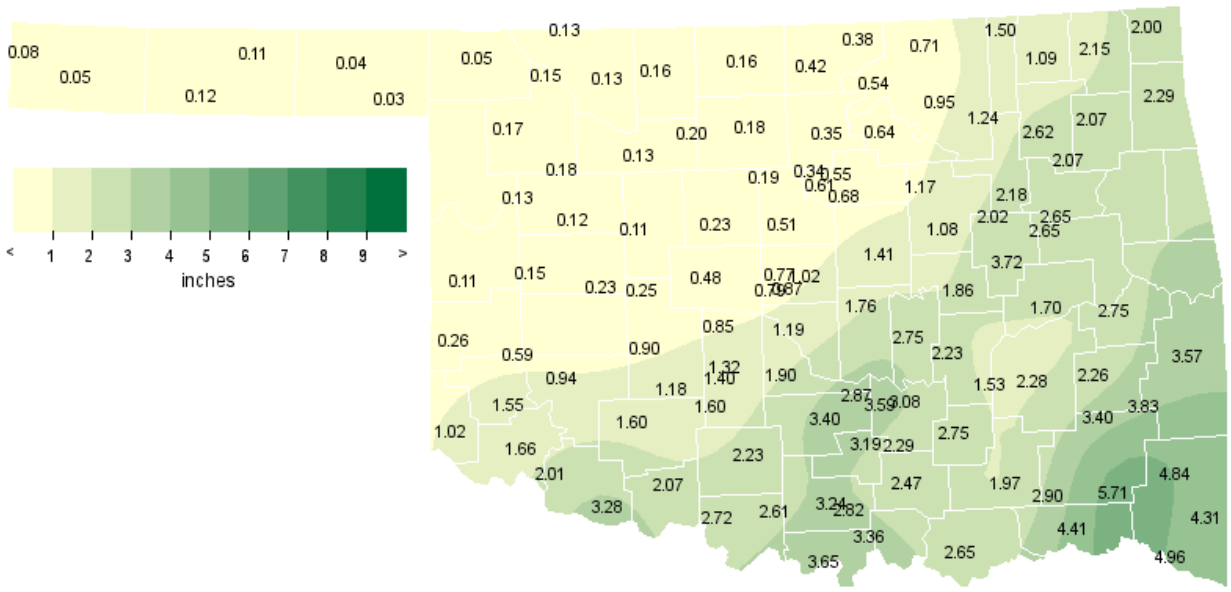
DECEMBER 14-17: A strong cold front moved into Oklahoma overnight on the 14th, dropping temperatures 20 degrees in an hour. That kept the state cold for a couple of days before a warm up on the 16th and 17th. Highs by the 17th were into the 50s and 60s.

DECEMBER 18-22: A weaker cold front passed through the state on the 18th, switching winds around to the north and cooling things down just a tad. Still, highs on the 18th were able to climb into the 50s and 60s, 5-10 degrees above normal for December. An approaching storm kept the southerly winds cranked up for the next few days and the temperatures followed suit, staying well into the 50s and 60s through the 23rd. A cold front accompanied the large storm system as it moved into the state, generating strong to severe storms in the southeast. Some moderate-size hail and heavy rains were found with a few of the storms. Still, temperatures remained in the 30s and 40s behind the front, and highs reached into the 70s ahead of the front.

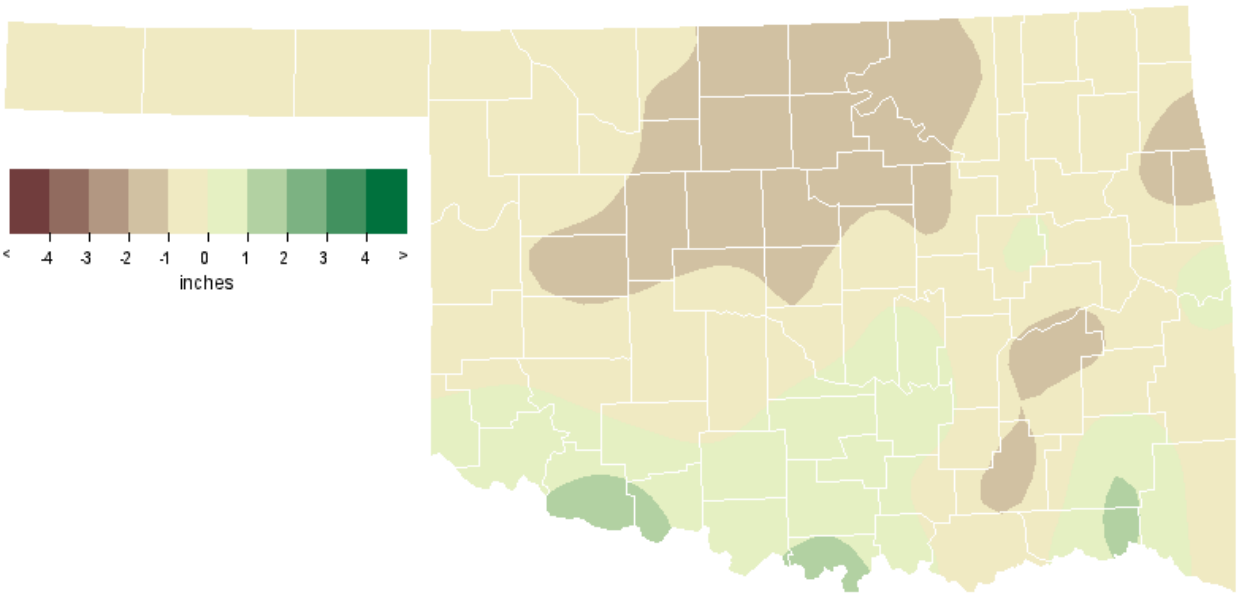
DECEMBER 24: The 24th became one of the most memorable Christmastime periods in Oklahoma history with blizzard conditions covering much of the state and more than a foot of snow falling in central Oklahoma. Winds of more than 60 mph blew the snow and wreaked havoc on travel. Chain-reaction car accidents amounted to more than 50 vehicles in one instance. The storm began early in the morning of the 24th with sleet and freezing rain in the southwest. The freezing rain accumulated up to 0.5 inches on power lines in that area to cause widespread power outages. The precipitation eventually changed to snow and a broad area centered on I-44 from Oklahoma City through Tulsa received heavy snow. Drifts were over 5 feet in some areas, and whiteout conditions dropped visibilities to less than 100 feet at times. Snow finally died down from west to east that evening as the storm system moved out, but strong winds continued to blow the fallen snow, making it difficult to tell that the precipitation had ended. The official observing site at Will Rogers airport recorded 13.5 inches, a new Oklahoma City record for the 24th. That total also broke the Oklahoma City record for 24-hour and storm total snowfall. The Tulsa area received from 4-8 inches of snow as well.

DECEMBER 25-31: The weather was still wintery at times from Christmas to New Year's Eve, but no events of the blizzard's magnitude occurred. A nice warm up followed the blizzard for a few days, allowing roads to clear somewhat with the melting of the offending snow. Temperatures in the 30s and 40s persisted in the afternoons. Another upper storm approached on the 29th and light snow fell later, but amounts were generally light. The northeast saw the most snow with 2-3 inches in places. Additional wintery weather struck on New Year's Eve with some light snow and rain, mostly in the south. Other than that, the last day of the year was uneventful with 30s and 40s for highs.

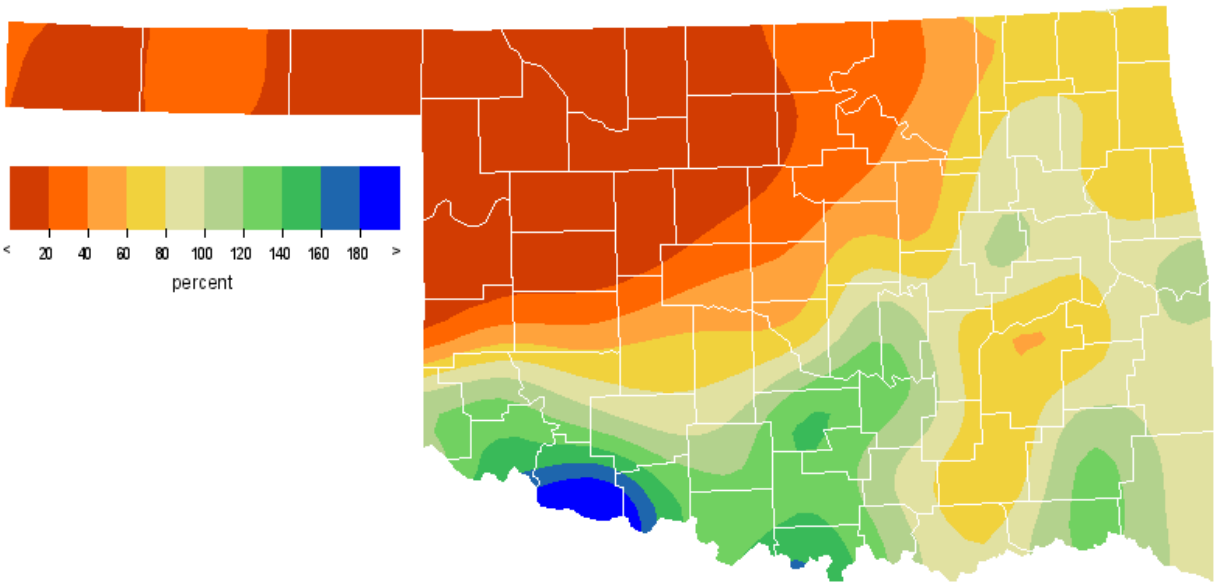
DECEMBER 2009 OBSERVED PRECIPITATION



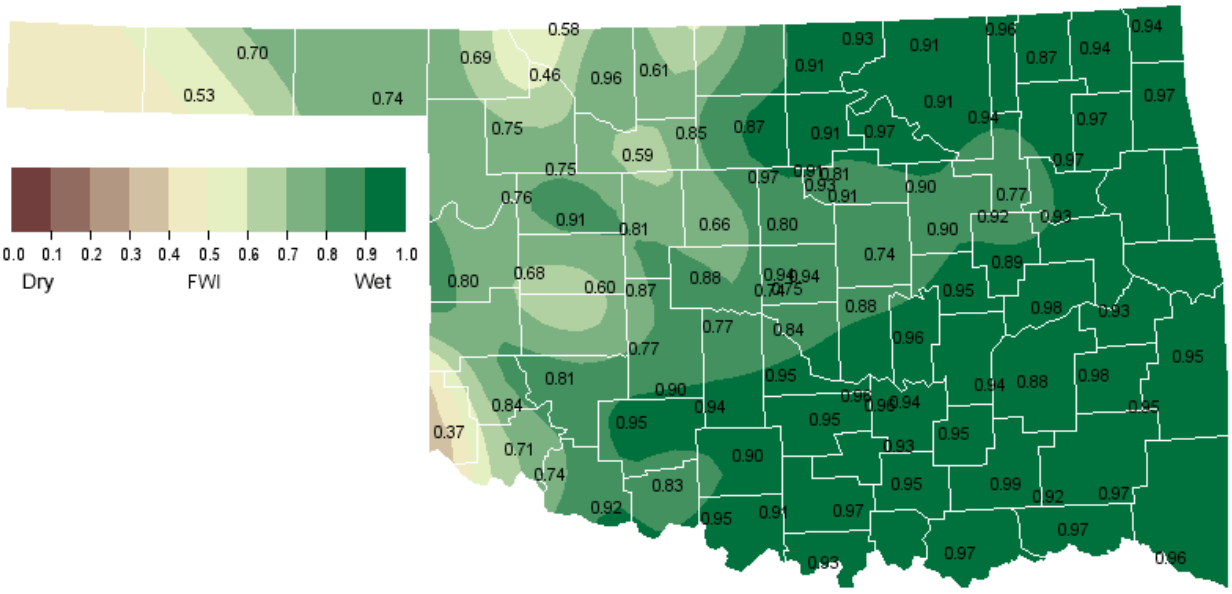
DECEMBER 2009 DEPARTURE FROM NORMAL PRECIPITATION



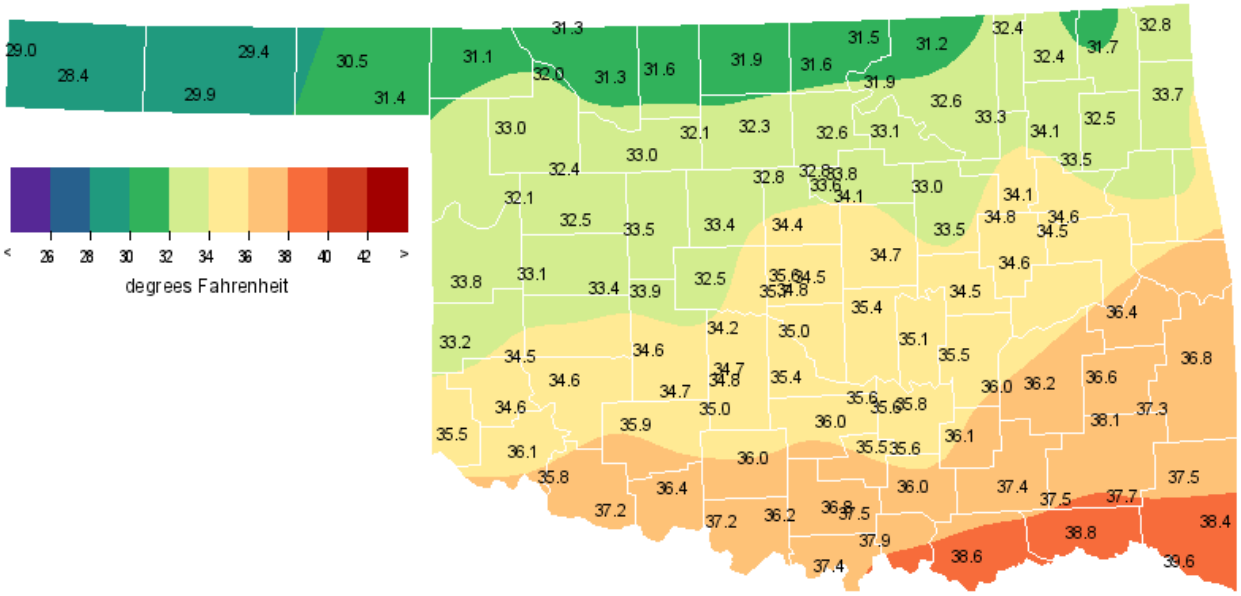
DECEMBER 2009 PERCENT OF NORMAL PRECIPITATION



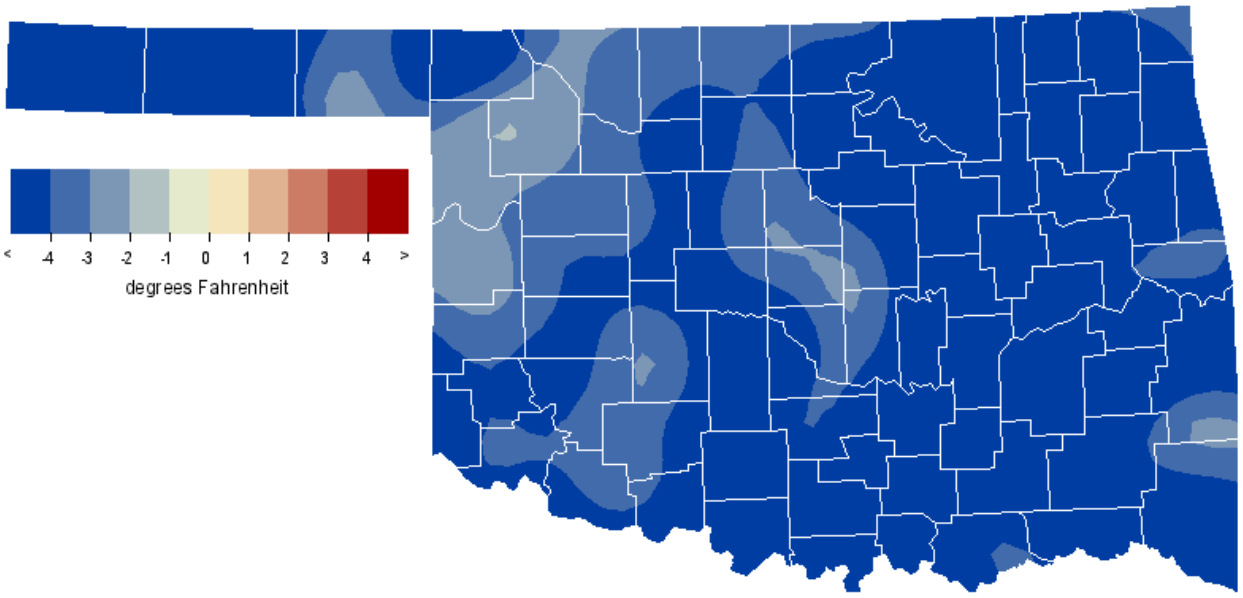
DECEMBER 2009 AVERAGE SOIL MOISTURE AT 25CM



DECEMBER 2009 AVERAGE TEMPERATURE



DECEMBER 2009 DEPARTURE FROM NORMAL TEMPERATURE

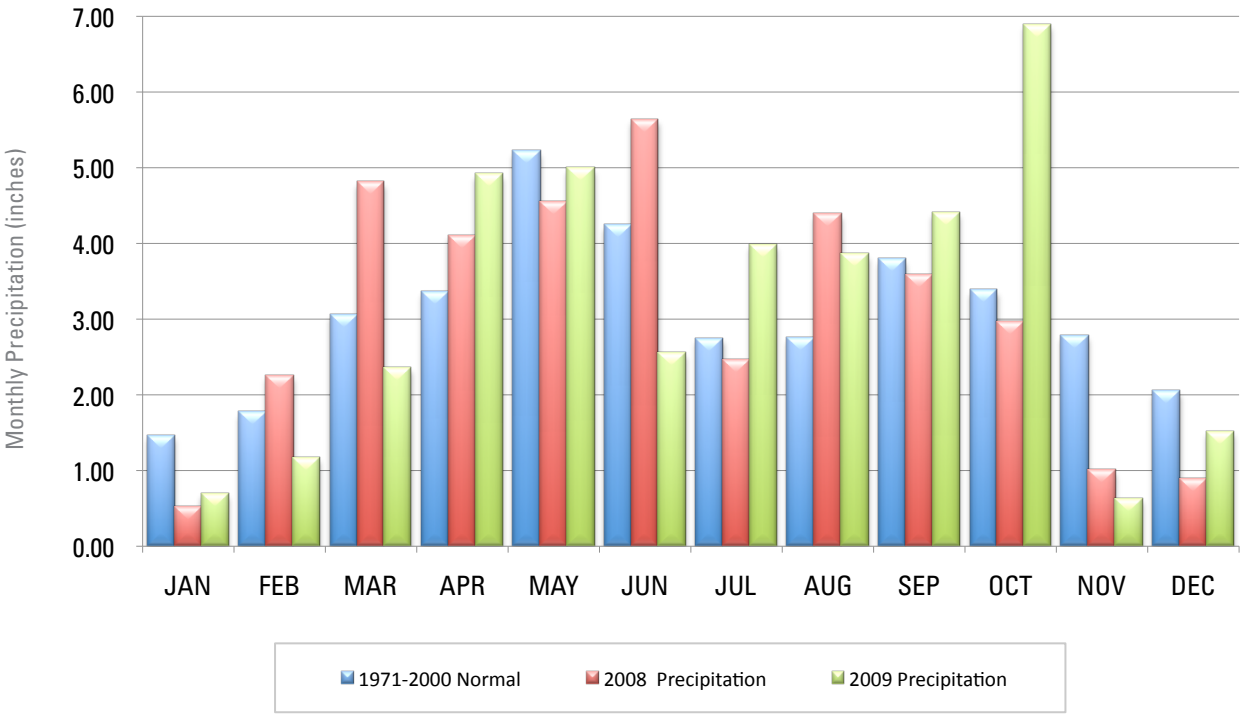


MESONET MONTHLY SUMMARY FOR DECEMBER 2009

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	*****	***	***	***	***	****	****	*****	*****	***
Beaver	30.5	69	13	0	10	1070	0	.04	.02	31
Boise City	28.4	66	21	-1	9	1135	0	.05	.03	31
Buffalo	31.1	71	13	-1	10	1052	0	.05	.02	22
NORTH CENTRAL										
Alva	31.2	64	13	4	10	1046	0	.13	.10	30
Blackwell	31.6	62	13	7	10	1036	0	.42	.20	30
Breckinridge	32.3	66	13	5	10	1013	0	.18	.10	30
Cherokee	31.6	62	13	3	10	1036	0	.16	.11	30
Fairview	33.1	69	13	6	10	990	0	.13	.08	30
Freedom	31.9	68	13	3	10	1025	0	.15	.09	30
Lahoma	32.1	67	13	8	10	1019	0	.20	.11	30
NORTHEAST										
Bixby	34.1	60	21	10	10	957	0	2.18	.88	23
Burbank	32.0	62	13	6	10	1024	0	.54	.25	30
Claremore	34.0	59	21	10	10	959	0	2.62	1.02	23
Copan	32.4	58	21	6	10	1012	0	1.50	.80	23
Foraker	31.2	59	13	7	10	1047	0	.71	.22	30
Inola	33.4	60	21	10	10	979	0	2.07	.72	23
Jay	33.7	63	21	6	10	970	0	2.29	.61	23
Miami	32.8	61	21	9	10	998	0	2.00	.73	23
WEST CENTRAL										
Bessie	34.7	69	13	10	10	****	****	.14	.10	1
Butler	33.1	74	13	4	10	988	0	.15	.07	8
Camargo	32.1	72	13	2	10	1021	0	.13	.05	8
Cheyenne	33.8	70	13	7	10	966	0	.11	.05	30
Erick	33.1	71	13	3	10	988	0	.26	.08	31
CENTRAL										
Acme	35.1	69	13	10	10	928	0	1.60	.65	2
Bowlegs	35.1	66	13	9	10	927	0	2.75	1.13	24
Bristow	33.5	63	13	6	10	978	0	1.08	.38	24
Lake Carl Blac	32.9	70	13	4	10	996	0	.34	.09	8
Chandler	34.7	68	13	8	10	940	0	1.41	.69	24
Chickasha	34.7	68	13	9	10	940	0	1.32	.47	2
El Reno	32.5	70	13	5	10	1008	0	.48	.12	1
Guthrie	34.3	70	13	9	10	951	0	.51	.12	28
Kingfisher	33.3	71	13	6	10	982	0	.23	.08	30
Marena	33.6	70	13	7	10	972	0	.61	.17	30
Minco	34.2	68	13	11	10	953	0	.85	.23	2
Marshall	32.8	71	13	5	10	997	0	.19	.10	30
EAST CENTRAL										
Cookson	34.4	58	21	8	10	****	****	1.66	.85	24
Eufaula	33.4	64	23	***	4	848	0	1.70	.89	24
Haskell	34.5	60	21	12	10	947	0	2.65	1.17	23
Hectorville	34.8	63	13	12	10	937	0	2.02	.57	23
Holdenville	35.5	67	23	11	10	914	0	2.23	.72	2
McAlester	36.2	65	23	11	10	894	0	2.28	.70	24
Okmulgee	34.6	62	21	9	10	942	0	3.72	1.64	23
SOUTHWEST										
Altus	36.2	70	13	13	10	894	0	1.66	.57	24
Apache	34.7	68	13	11	10	940	0	1.18	.34	2
Fort Cobb	34.5	70	13	10	10	944	0	.90	.22	1
Grandfield	37.2	73	13	13	10	861	0	3.28	2.11	24
Hinton	33.8	68	13	9	10	966	0	.25	.08	1
Hobart	34.6	70	13	11	10	943	0	.94	.13	1
SOUTH CENTRAL										
Ada	35.8	70	23	10	10	904	0	3.08	.92	24
Ardmore	37.5	68	23	14	10	852	0	2.82	1.05	2
Burneyville	37.3	71	23	13	10	858	0	3.65	1.34	24
Byars	35.7	65	13	11	10	909	0	2.87	1.07	24
Centrahoma	36.1	68	23	11	10	895	0	2.75	.80	24
Durant	38.6	73	23	18	10	818	0	2.65	1.01	24
Fittstown	35.6	68	23	12	10	911	0	2.29	.83	24
Ketchum Ranch	36.0	71	13	13	10	898	0	2.23	.72	2
Lane	37.4	70	23	15	10	857	0	1.97	.70	2
SOUTHEAST										
Antlers	37.4	67	23	12	10	854	0	2.90	1.21	24
Broken Bow	38.4	63	21	16	10	823	0	4.31	1.88	23
Clayton	38.1	64	21	12	10	834	0	3.40	1.61	24
Cloudy	37.8	63	14	14	10	843	0	5.71	3.66	24
Hugo	38.8	66	23	16	10	812	0	4.41	2.81	24

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
Goodwell	29.9	64	13	-2	10	1089	0	.12	.10	31
Hooker	29.3	64	13	0	10	1107	0	.11	.10	31
Kenton	28.9	67	21	-2	9	1118	0	.08	.02	8
Slapout	31.5	68	13	4	10	1038	0	.03	.02	31
May Ranch	31.2	66	13	3	10	1047	0	.13	.06	30
Medford	31.9	62	13	7	10	1025	0	.16	.08	8
Newkirk	31.5	60	13	8	10	1039	0	.38	.18	30
Red Rock	32.6	68	13	6	10	1005	0	.35	.15	30
Seiling	32.4	70	13	3	10	1011	0	.18	.05	30
Woodward	33.0	70	13	4	10	993	0	.17	.10	30
Nowata	32.4	60	21	6	10	1012	0	1.09	.28	30
Pawnee	33.1	69	13	8	10	989	0	.64	.28	30
Porter	34.6	60	23	12	10	942	0	2.65	1.04	23
Pryor	32.4	63	21	8	10	1009	0	2.07	.52	23
Skiatook	33.2	59	13	9	10	985	0	1.24	.34	24
Vinita	31.7	61	21	6	10	1032	0	2.15	1.16	23
Wynona	32.6	62	13	9	10	1003	0	.95	.28	30
Putnam	32.5	72	13	5	10	1008	0	.12	.07	8
Retrop	34.5	70	13	10	10	945	0	.59	.11	1
Watonga	33.6	68	13	8	10	975	0	.11	.07	8
Weatherford	33.3	67	13	9	10	981	0	.23	.08	1
Ninnekah	34.8	67	13	10	10	936	0	1.40	.48	2
Norman	35.0	70	13	11	10	931	0	1.19	.51	2
Oilton	32.9	66	13	5	10	994	0	1.17	.39	24
OKC East	34.8	70	13	9	10	936	0	.87	.32	2
OKC North	35.6	70	13	11	10	913	0	.77	.25	2
OKC West	35.6	69	13	14	10	911	0	.79	.30	2
Okemah	34.6	63	21	10	10	943	0	1.86	.65	2
Perkins	34.1	69	13	8	10	959	0	.68	.20	30
Shawnee	35.3	66	13	10	10	919	0	1.76	.86	24
Spencer	34.5	70	13	8	10	945	0	1.02	.37	2
Stillwater	33.8	70	13	8	10	969	0	.55	.17	30
Washington	35.4	68	13	11	10	919	0	1.90	.70	24
Sallisaw	36.1	60	21	11	10	****	****	2.27	1.24	24
Stigler	36.4	63	21	13	10	886	0	2.75	1.60	24
Stuart	36.0	65	23	12	10	898	0	1.53	.54	24
Tahlequah	34.2	61	21	10	10	****	****	1.21	.56	24
Webbers Falls	35.7	59	21	14	10	****	****	2.04	1.30	24
Westville	34.5	61	21	9	10	****	****	1.02	.40	8
Hollis	35.5	72	13	10	10	913	0	1.02	.23	1
Mangum	34.6	72	13	7	10	943	0	1.55	.21	25
Medicine Park	35.9	69	13	13	10	902	0	1.60	.38	2
Tipton	35.8	70	13	12	25	905	0	2.01	.89	24
Walters	36.4	72	13	11	10	886	0	2.07	.93	24
Madill	37.9	71	23	16	10	841	0	3.36	1.35	24
Newport	36.8	68	23	14	10	875	0	3.24	1.22	24
Pauls Valley	36.0	68	13	14	10	899	0	3.40	1.35	24
Ringling	36.2	72	13	9	26	893	0	2.61	.72	24
Sulphur	35.4	68	23	12	10	917	0	3.19	1.40	24
Tishomingo	36.0	69	23	13	10	899	0	2.47	.93	2
Vanoss	35.6	70	23	10	10	912	0	3.59	1.45	24
Waurika	37.3	73	13	13	10	860	0	2.72	.65	2
Idabel	39.6	66	21	19	5	786	0	4.96	2.48	23
Mt Herman	37.5	62	14	15	10	853	0	4.84	1.76	23
Talihina	37.3	63	14	14	10	859	0	3.83	1.91	24
Wilburton	36.6	64	21	11	10	880	0	2.26	1.41	24
Wister	36.9	65	21	13	10	872	0	3.57	1.97	24

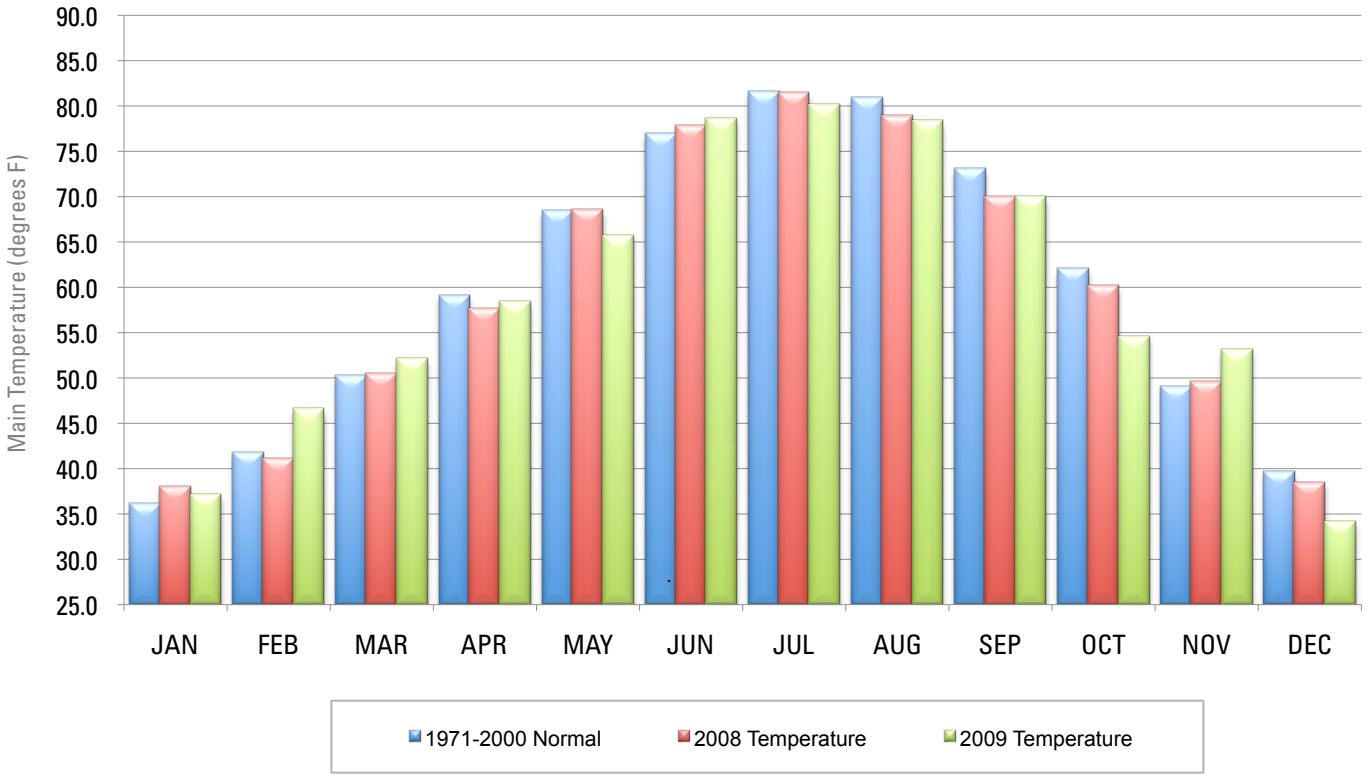
2008 AND 2009 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



December 2009 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Dec-08
Panhandle	0.07	-0.63	14th Driest	4.49 (2006)	0.00 (1922)	0.35
North Central	0.21	-1.09	12th Driest	4.55 (1913)	0.00 (1922)	0.75
Northeast	1.65	-0.63	51st Driest	6.72 (1984)	0.16 (1950)	2.01
West Central	0.21	-0.93	21st Driest	4.03 (1932)	0.00 (1908)	0.21
Central	1.06	-0.95	47th Driest	6.67 (1984)	0.00 (1908)	0.75
East Central	2.36	-0.62	58th Driest	8.95 (1987)	0.21 (1908)	0.75
Southwest	1.50	0.12	37th Wettest	4.94 (1991)	0.00 (1908)	0.41
South Central	2.88	0.35	34th Wettest	7.01 (1932)	0.07 (1950)	0.59
Southeast	4.02	-0.05	44th Wettest	12.76 (1971)	0.25 (1917)	2.25
Statewide	1.51	-0.51	57th Driest	4.98 (1984)	0.10 (1950)	0.90

2008 AND 2009 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



December 2009 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Dec-08 (F)
Panhandle	30.0	-5.0	13th Coolest	41.6 (1933)	22.6 (1983)	34.4
North Central	32.0	-4.5	16th Coolest	43.7 (1965)	21.9 (1983)	35.8
Northeast	32.9	-5.3	13th Coolest	45.1 (1931)	24.3 (1983)	37.4
West Central	33.3	-4.1	16th Coolest	44.2 (1965)	24.0 (1983)	37.6
Central	34.3	-5.0	14th Coolest	46.4 (1965)	25.3 (1983)	38.9
East Central	35.4	-5.2	9th Coolest	47.6 (1933)	27.4 (1983)	39.8
Southwest	35.4	-4.4	14th Coolest	46.7 (1965)	27.5 (1983)	40.1
South Central	36.5	-5.6	8th Coolest	48.5 (1965)	29.2 (1983)	40.7
Southeast	37.8	-4.6	8th Coolest	50.7 (1984)	30.7 (1983)	41.5
Statewide	34.1	-4.9	10th Coolest	45.4 (1965)	25.8 (1983)	38.4

MESONET EXTREMES FOR DECEMBER 2009

Climate Division	High Temp (F)	Day	Station	Low Temp (F)	Day	Station	High Monthly Rainfall (inches)	Station	High Daily Rainfall (inches)	Day	Station
Panhandle	71	13th	Buffalo	-2	10th	Goodwell	0.12	Goodwell	0.10	31st	Goodwell
North Central	70	13th	Seiling	3	10th	Freedom	0.42	Blackwell	0.20	30th	Blackwell
Northeast	69	13th	Pawnee	6	10th	Jay	2.65	Porter	1.16	23rd	Vinita
West Central	74	13th	Butler	2	10th	Camargo	0.59	Retrop	0.11	1st	Retrop
Central	71	13th	Marshall	4	10th	Lake Carl Blackwell	2.75	Bowlegs	1.13	24th	Bowlegs
East Central	67	23rd	Holdenville	9	10th	Okmulgee	3.72	Okmulgee	1.64	23rd	Okmulgee
Southwest	73	13th	Grandfield	7	10th	Mangum	3.28	Grandfield	2.11	24th	Grandfield
South Central	73	23rd	Durant	9	26th	Ringling	3.65	Burneyville	1.45	24th	Vanoss
Southeast	67	23rd	Antlers	11	10th	Wilburton	5.71	Cloudy	3.66	24th	Cloudy
Statewide	74	13th	Butler	-2	10th	Goodwell	5.71	Cloudy	3.66	24th	Cloudy

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.

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.

Precipitation

Mean	1.46 inches
Wettest year	1949, 5.23 inches
Driest year	1986, 0.04 inches
Wettest location	Broken Bow, 3.49 inches
Driest location	Goodwell, 0.29 inches
Most recorded	13.85 inches, Smithville, 1950

Tornadoes

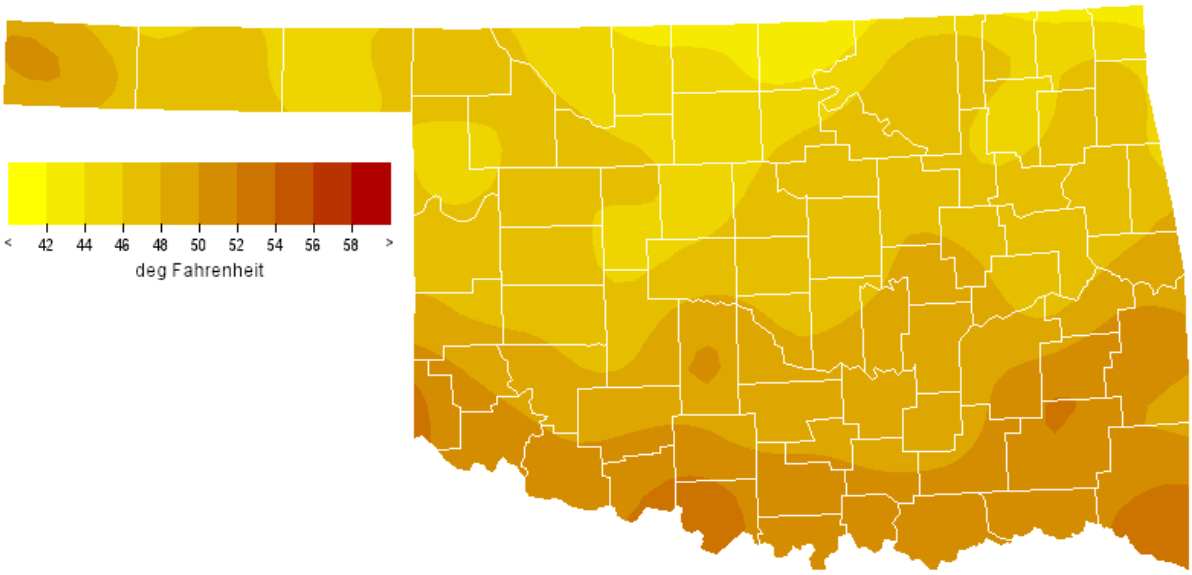
Average January Tornadoes	0.2
Most	4 (1967)

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

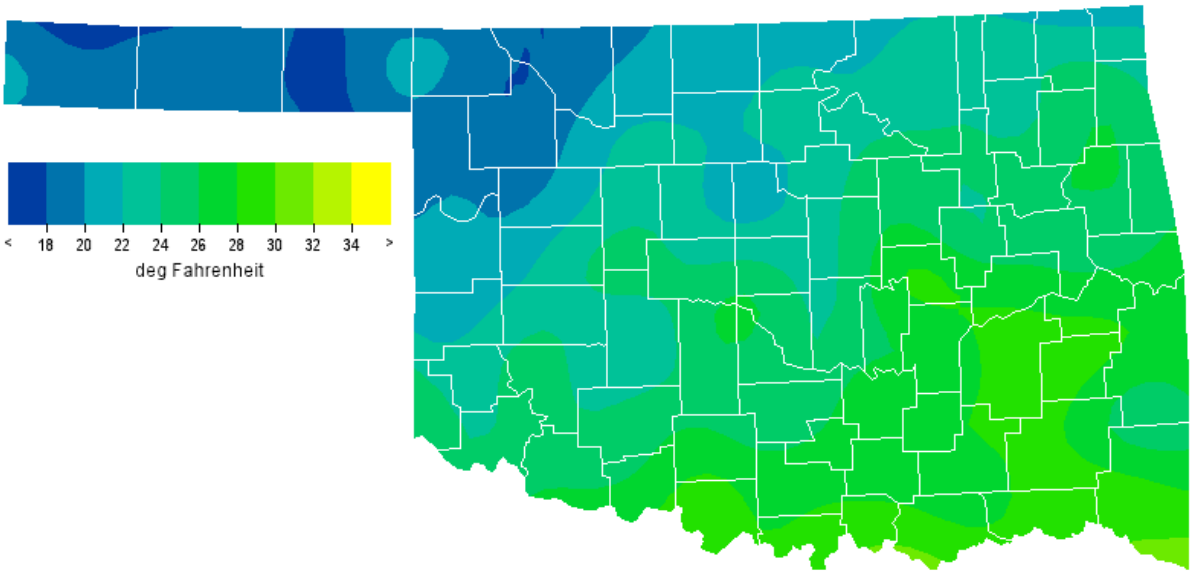
storm during the previous month. Goodwell reported 16 inches on snow on January 19, 1990, accumulating 18 inches over a two-day period, in a snowstorm whose Oklahoma extent was mainly confined to the panhandle. The state record for January monthly snowfall is 32.7 inches, set at Kenton in 2001. Nearly 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.

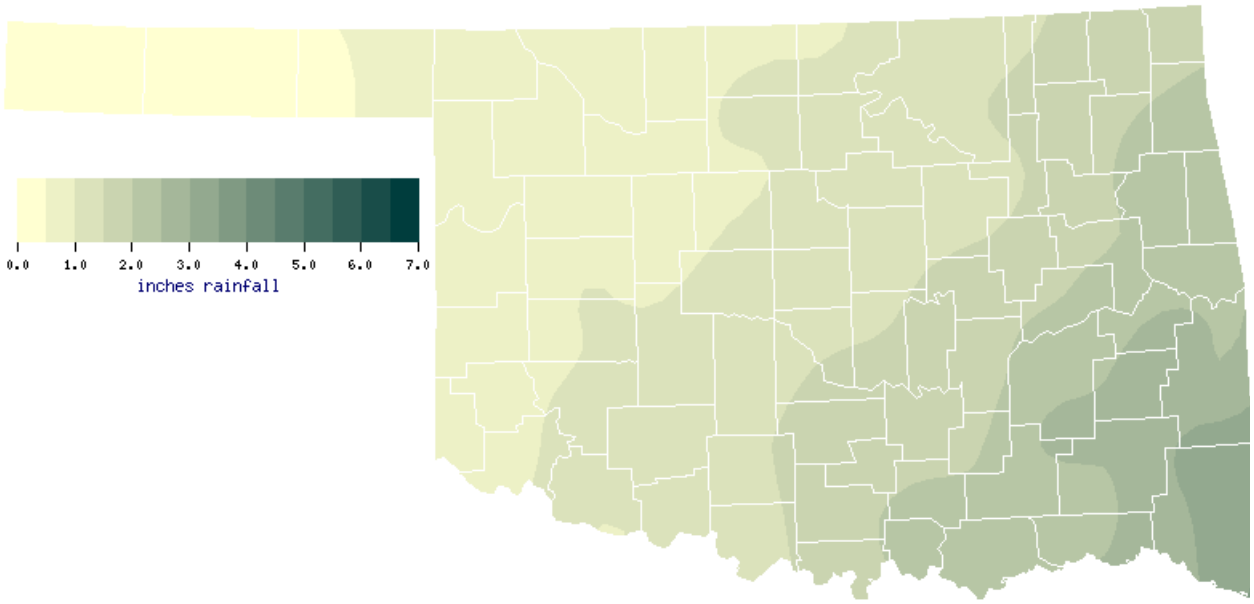
JANUARY NORMAL DAILY MAXIMUM TEMPERATURE (1971-2000)



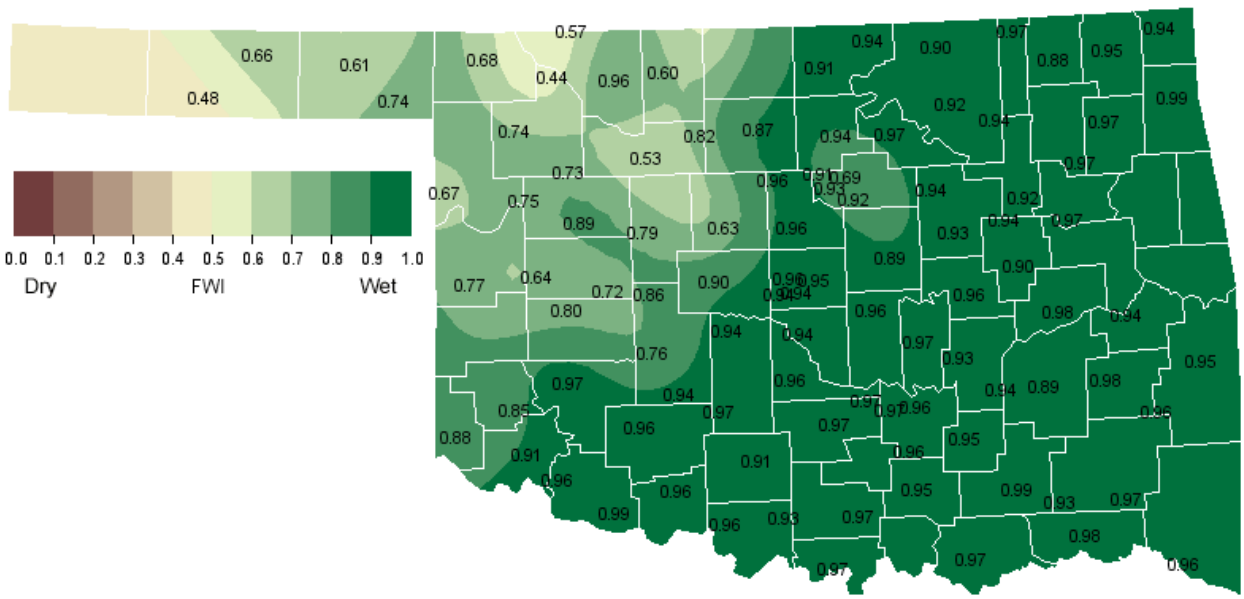
JANUARY NORMAL DAILY MINIMUM TEMPERATURE (1971-2000)



JANUARY NORMAL PRECIPITATION (1971-2000)



JANUARY 1, 2010 SOIL MOISTURE CONDITIONS AT 25CM



JANUARY 2010 DROUGHT INDICES

U.S. Drought Monitor

Oklahoma

January 5, 2010
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	100.0	0.0	0.0	0.0	0.0	0.0
Last Week (12/29/2009 map)	100.0	0.0	0.0	0.0	0.0	0.0
3 Months Ago (10/13/2009 map)	99.8	0.3	0.0	0.0	0.0	0.0
Start of Calendar Year (01/05/2010 map)	100.0	0.0	0.0	0.0	0.0	0.0
Start of Water Year (10/06/2009 map)	98.0	2.0	0.0	0.0	0.0	0.0
One Year Ago (01/06/2009 map)	41.6	58.4	12.0	3.4	0.0	0.0

Intensity:

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

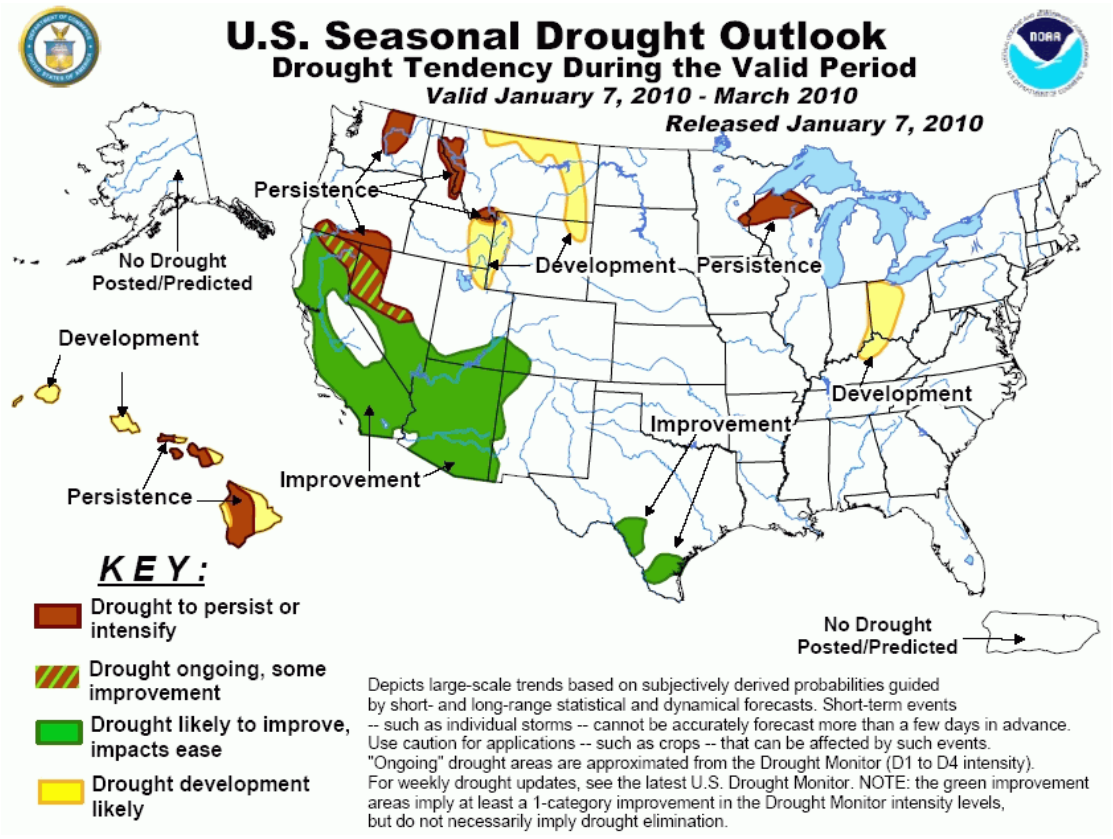
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

http://drought.unl.edu/dm

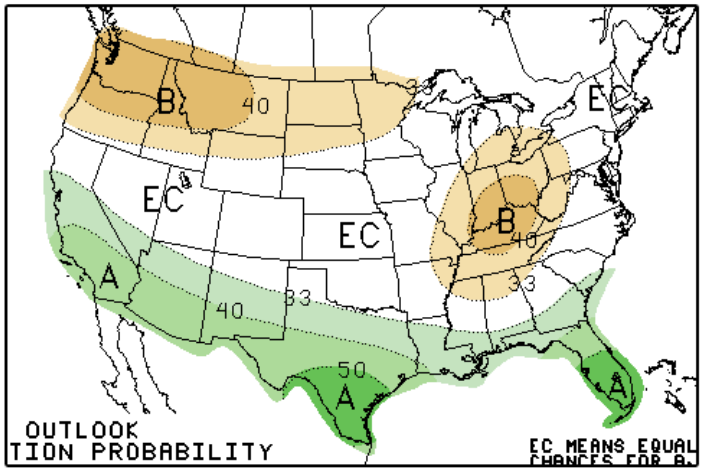
USDA National Drought Mitigation Center

Released Thursday, January 7, 2010

Author: Mark Svoboda, National Drought Mitigation Center



JANUARY 2010 U.S. PRECIPITATION FORECAST



Percent Likelihood of Above or Below Average Precipitation*

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

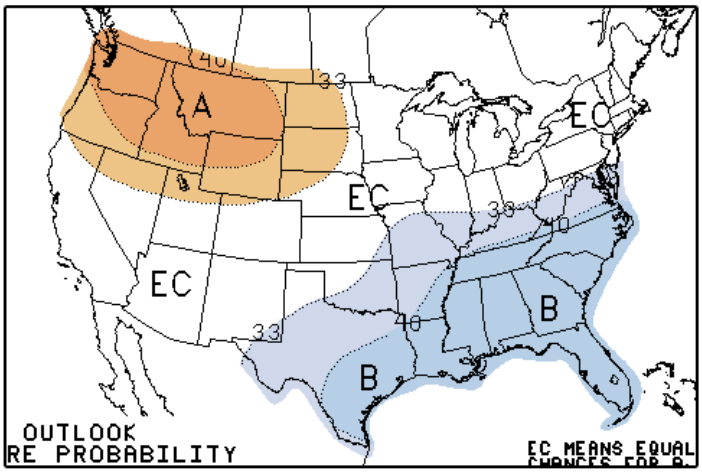
A = Above

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

B = Below

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

JANUARY 2010 U.S. TEMPERATURE FORECAST



Percent Likelihood of Above or Below Average Temperatures*

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

A = Above

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

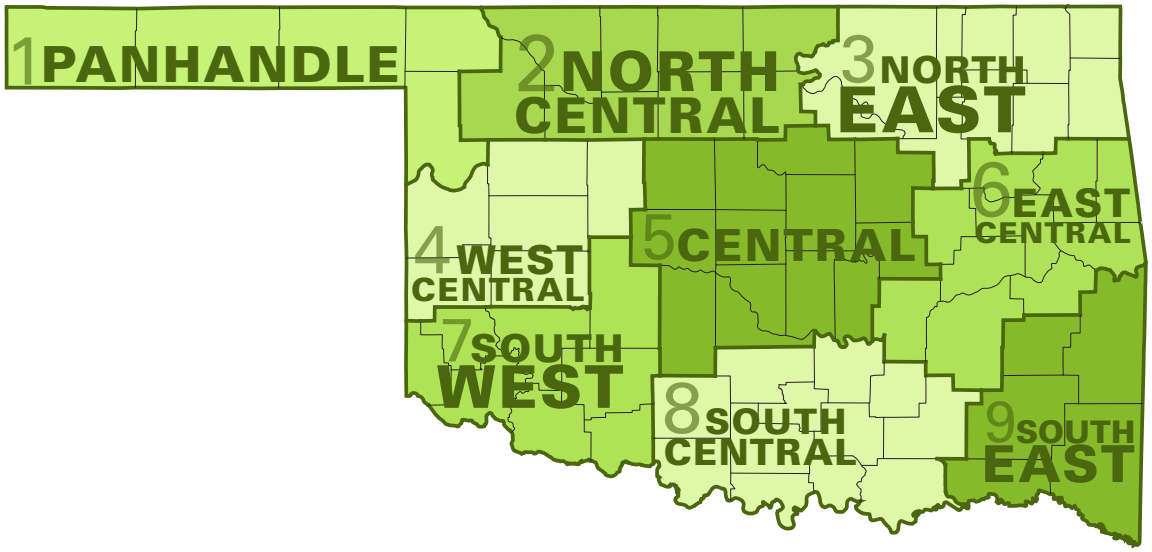
B = Below

*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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