Oklahoma Monthly Climate Summary

JANUARY 2010

OKLAHOMA CLIMATOLOGICAL SURVEY

Editor's note: Due to the frozen precipitation that fell across the state on the 28th and 29th, precipitation estimates for January will not reflect an accurate liquid water equivalent of that frozen precipitation. This is a by-product of the Oklahoma Mesonet's tipping bucket rain gages, which are not heated. Accumulations after melting will occur into February.

Oklahoma's vicious winter still packed a powerful bite during January. A blast of arctic air struck early in the month and brought some of the coldest weather in more than a decade to the state. A couple of weeks of respite were followed by a significant winter storm that dropped 4-10 inches of snow across a large area. The worst of that storm struck southwestern and south central Oklahoma, however, with widespread freezing rain accumulations of three quarters of an inch, devastating the electrical utility infrastructure in those areas. Approximately 180,000 customers were left without power due to the storm. The previous winter blast on January 6-10 saw temperatures drop as low as -6 degrees. Strong winds combined with the frigid air to drop wind chill values into the -20s. Those two winter events helped the month finish as the 31st coolest January on record, dating back to 1895. Preliminary data show the month to be the 51st wettest as well at just a bit below normal, although the frozen precipitation at month's end is not reflected in the January totals.

January 2010 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	75°F	Hollis	22
Low Temperature	-6°F	Goodwell, Vinita	8, 10
High Precipitation	5.45 in.	Cloudy	
Low Precipitation	0.26 in.	Butler	--

PRECIPITATION

TThe statewide average precipitation total for the month ended just below normal at 1.41 inches. Heavier precipitation fell in the southeast and southwestern Oklahoma, with the bulk of those amounts occurring during the winter storm on the 28th and 29th. The northwestern quarter of the state, including the Panhandle, brought up the rear with less than an inch on average. The southeast had an average of more than 3.5 inches to rank as the 41st wettest January for that area. North central Oklahoma fell a half of an inch below normal and suffered their 44th driest January. The Mesonet site at Cloudy had the highest total with 5.45 inches while Butler brought up the rear with 0.26 inches. The winter season was still a bit on the dry side by more than a half of an inch, the 54th driest December-January on record.

TEMPERATURE

The statewide average temperature fell more than 3 degrees below normal at 34.4 degrees. All areas of the state had similar statistics as the early-month invasion of cold air skewed the data downward. The rankings across the state ranged from the 10th coolest in the southeast to the 21st coolest in west central Oklahoma. The month's high temperature came in at 75 degrees from Hollis. The coldest temperature of -6 degrees occurred at Vinita and Goodwell. For the season so far, the temperatures have come in more than 3 degrees below normal to rank as the 15th coolest such period on record.

January 2010 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2010)
Month (January)	34.7°F	-1.4°F	31st Coolest
Season-to-Date (Dec-Jan)	34.4°F	-3.2°F	15th Coolest

Precipitation

	Average	Depart.	Rank (1895-2010)
Month (January)	1.41 in.	-0.04 in.	51st Wettest
Season-to-Date (Dec-Jan)	2.92 in.	-0.55 in.	54th Driest

Depart. = departure from 30-year normal

JANUARY DAILY HIGHLIGHTS

JANUARY 1-5: A warm start to the New Year was interrupted by a cold front late on the first. Highs in the 40s and 50s were replaced by low temperature the following day in the single digits and teens. Snow fell on the third across northern Oklahoma with 1-3 inches being reported over that area. Highs rebounded on the fifth with southeasterly winds and temperatures in the 30s and 40s.

JANUARY 6-10: A strong cold front late on the sixth plunged the state into a frigid grip not seen in many years. Temperatures on the seventh dropped to the single digits and teens over most of the state and combined with 45 mph winds to produce

wind chill values near -20 degrees. Highs that day rose into the teens and 20s, nearly 30 degrees below normal. The frigid dome of high pressure stuck around for the next several days before moving off to the east on the 10th. High temperatures rebounded into the 40s and 50s on that day. The month's lowest temperature of -6 degrees was recorded twice during this period – at Goodwell on the eighth and Vinita on the 10th.

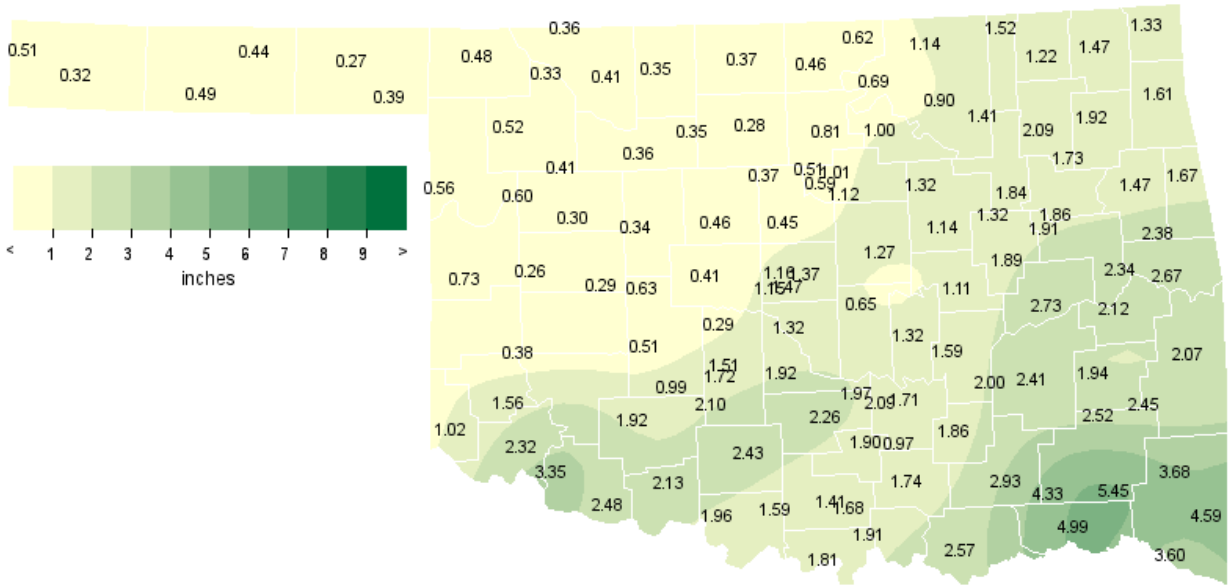
JANUARY 11-17: This seven-day period was relatively warm compared to the previous week with highs into the 40s and 50s for the most part and just a bit of rainfall from time to time. A surface boundary on the 14th cooled things down a bit but not by much. Highs that day were in the 40s and 50s with just a few 30s behind the front in the northwest. Southerly winds on the 17th pushed temperatures back into the 50s with some 60s thrown in for good measure.

JANUARY 18-22: Temperatures heated up on the 18th ahead of a slow-moving cold front. While high temperatures only rose into the 40s and 50s behind the front, they soared into the 60s and 70s ahead of the front. The front took a couple of days to meander through the state. Strong storms formed along the boundary on the 20th and 1-2 inches of rain fell in central and southeastern Oklahoma. A cool down on the 21st gave way to another dramatic warm up on the 22nd. Highs that day rose into the 60s and 70s on strong southerly winds gusting to 40 mph. The highest temperature of the month, 75 degrees, was recorded by the Hollis Mesonet site on the 22nd.

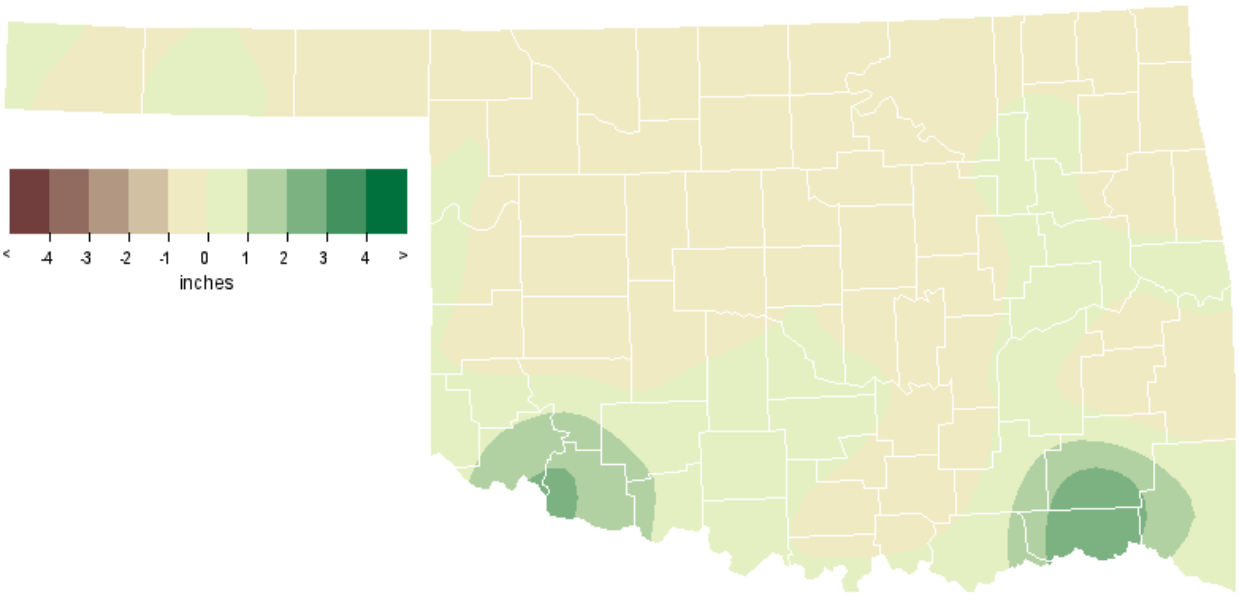
JANUARY 23-27: A bit of rain fell across the state on the 23rd, triggered by a large storm system moving through the southwestern states. A cold front pushed through the area on the 24th bringing northerly winds gusting to 35 mph and keeping highs in the 40s and 50s. The next several days were similar with strong winds, first from the north then from the south, and temperatures in the 40s and 50s. The 27th saw the effects of a powerful upper-level storm moving in from the southwest. A few showers occurred along with above normal temperatures in the 60s.

JANUARY 28-31: A major winter storm struck the area on the 28th and 29th with sleet, freezing rain and snow. Up to 3 inches of liquid equivalent precipitation fell from this moisture-laden storm. The southwest up through central Oklahoma suffered a significant ice storm with widespread radial ice thicknesses of 0.75 inches, although localized areas saw 2-2.5 inches. Up to 10 inches of snow and 2 inches of sleet fell across the northwest. The Oklahoma City area had 4-8 inches and Tulsa saw from 3-7 inches. Snow totals diminished rapidly to the southeast where the primary precipitation type was rain. The hardest hit area was the southwest where the heavy ice accumulations combined with winds gusting to nearly 40 mph to devastate the electrical power infrastructure. This damage was heaviest from far southwestern Oklahoma through south central Oklahoma, just south of Oklahoma City. By the storm's end, approximately 180,000 electrical utility customers were left without power. Preliminary numbers indicate seven deaths and nearly 1,200 injuries were attributable to the storm. More than 900 of those injuries were due to falls and another 200 occurred during traffic accidents. Temperatures remained frigid after the storm moved away on the 30th. High temperatures remained 15-20 degrees below normal and freezing fog was a problem across the western half of the state through the 31st.

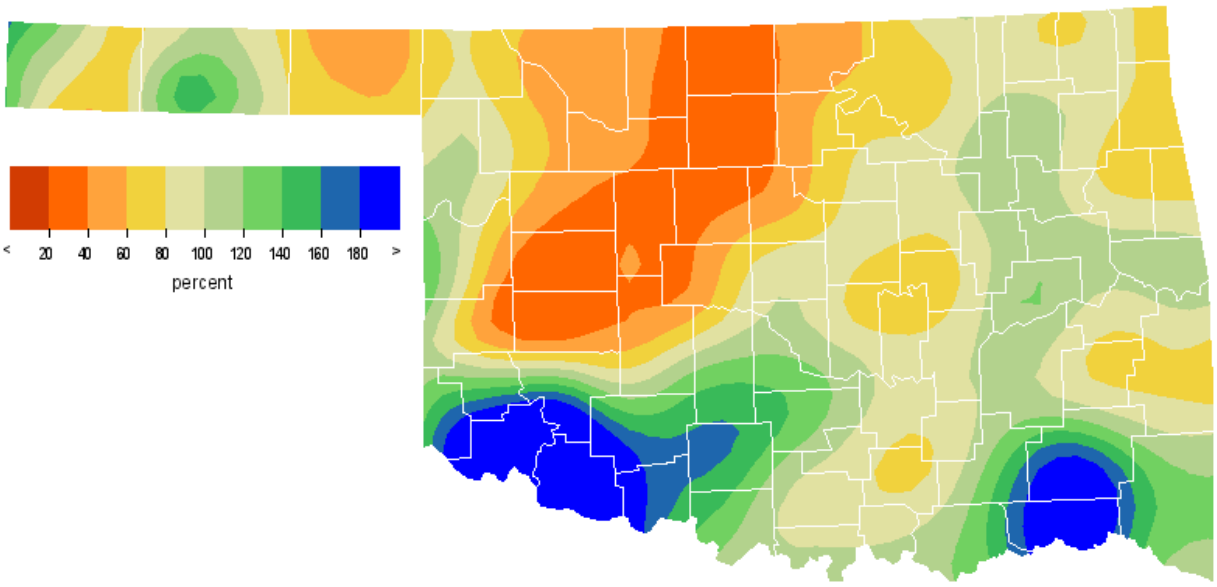
JANUARY 2010 OBSERVED PRECIPITATION



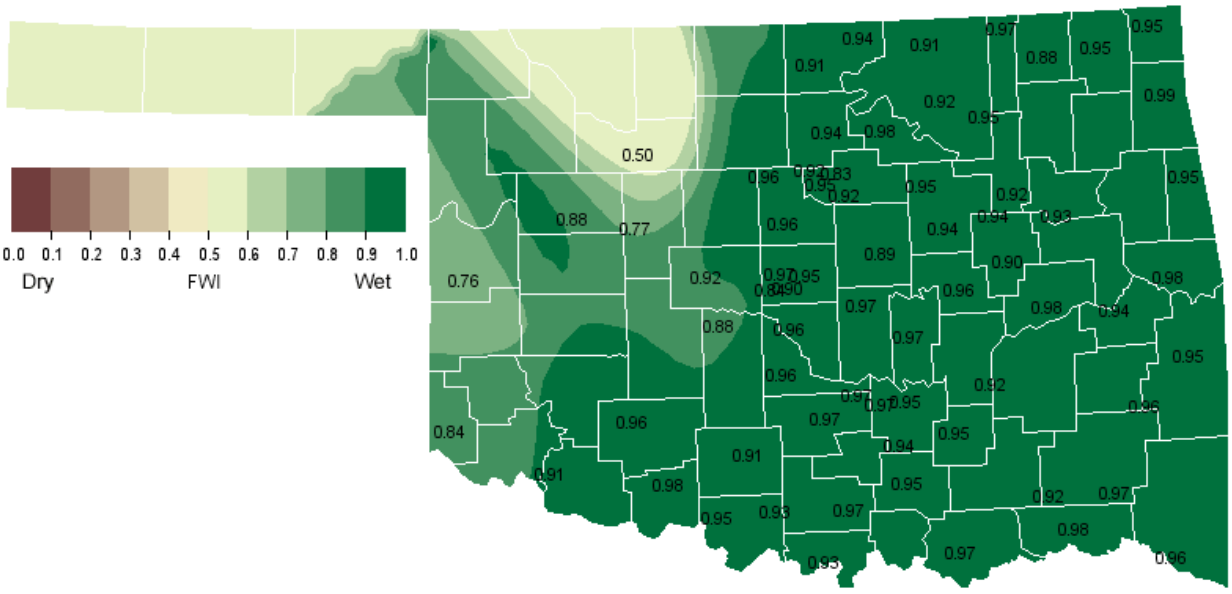
JANUARY 2010 DEPARTURE FROM NORMAL PRECIPITATION



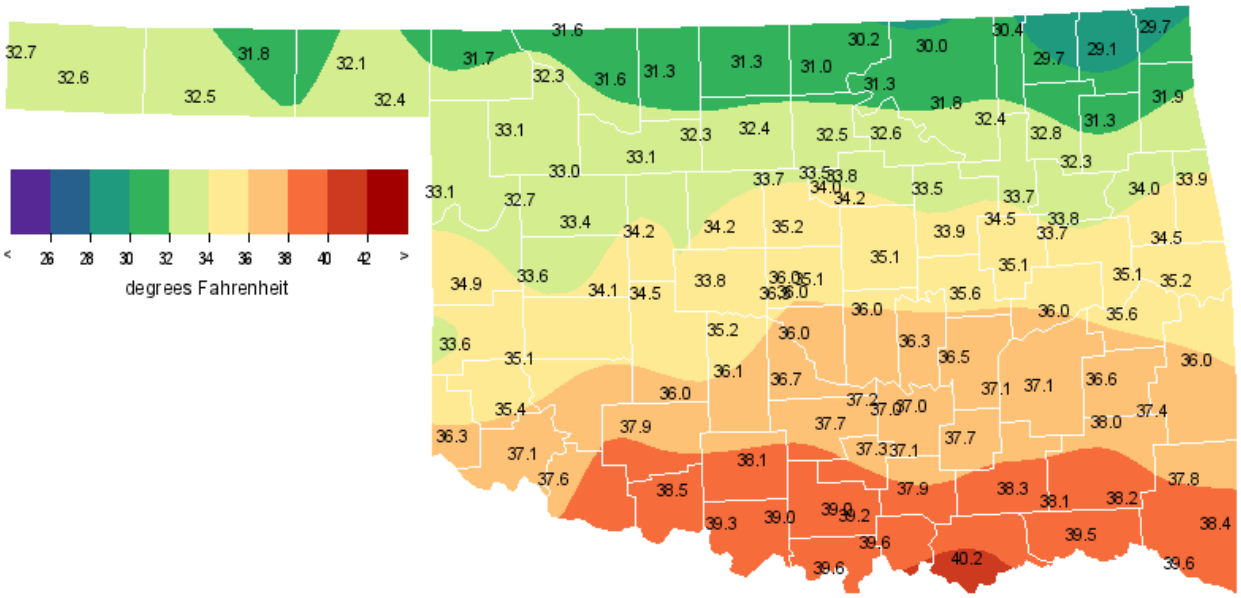
JANUARY 2010 PERCENT OF NORMAL PRECIPITATION



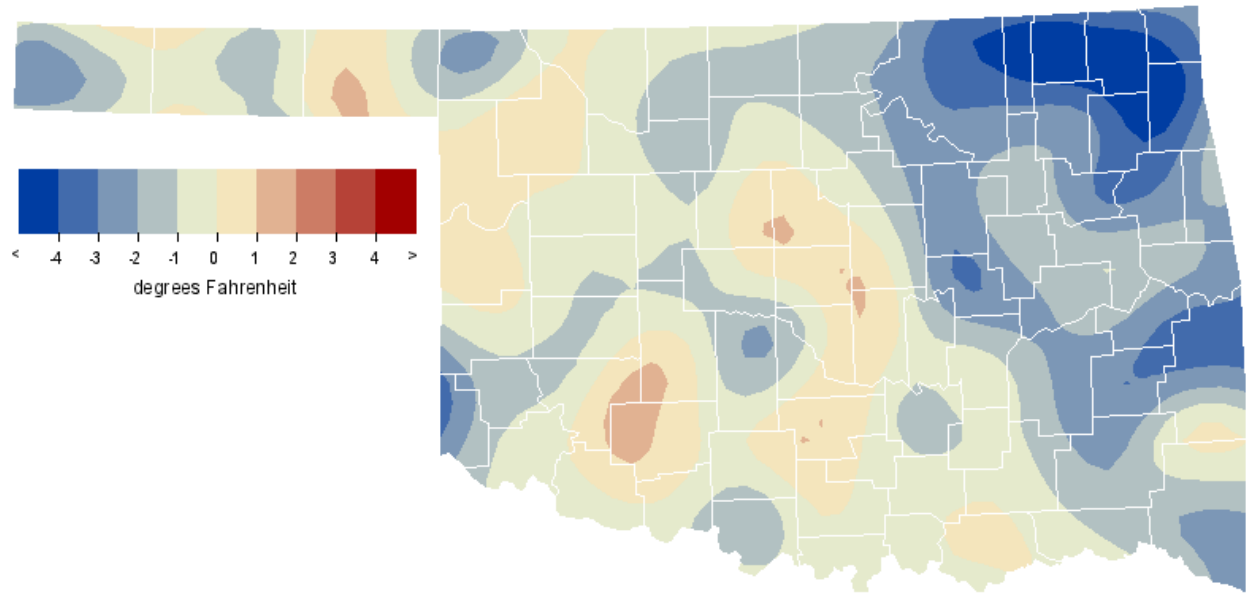
JANUARY 2010 AVERAGE SOIL MOISTURE AT 25CM



JANUARY 2010 AVERAGE TEMPERATURE



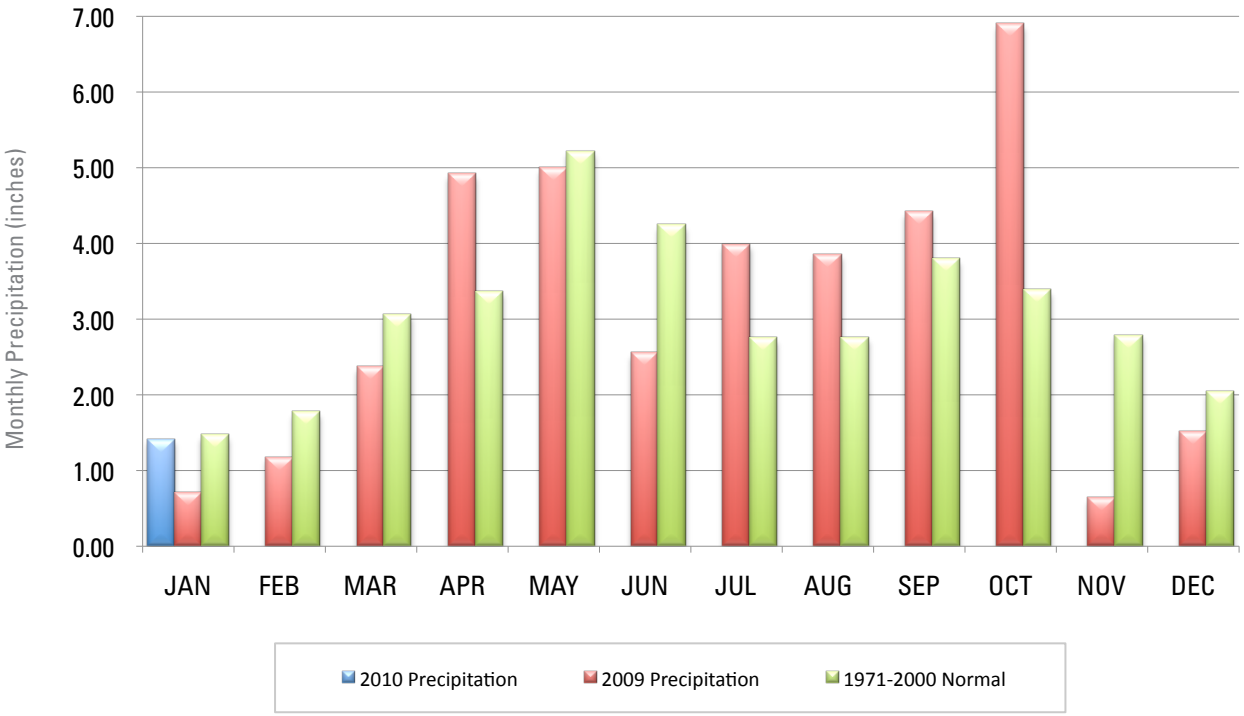
JANUARY 2010 DEPARTURE FROM NORMAL TEMPERATURE



MESONET MONTHLY SUMMARY FOR JANUARY 2010

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	33.1	67	22	1	8	989	0	.56	.24	22
Beaver	32.0	70	22	-3	8	1023	0	.27	.18	31
Boise City	32.6	64	13	-5	8	1005	0	.32	.19	30
Buffalo	31.8	68	22	-2	8	1030	0	.48	.18	30
Goodwell	32.4	67	22	-6	8	1011	0	.49	.29	30
Hooker	31.8	68	22	-4	8	1030	0	.44	.32	30
Kenton	32.7	64	13	-3	8	1000	0	.51	.23	30
Slapout	32.4	70	22	-3	8	1011	0	.39	.16	30
NORTH CENTRAL										
Alva	31.7	67	22	2	9	1034	0	.41	.23	20
Blackwell	31.0	64	22	-1	9	1054	0	.46	.16	30
Breckinridge	32.3	69	22	2	9	1015	0	.28	.10	20
Cherokee	31.3	69	22	-1	9	1044	0	.35	.20	30
Fairview	33.2	69	22	1	9	987	0	.36	.22	30
Freedom	32.3	68	22	0	8	1014	0	.33	.15	30
Lahoma	32.3	69	22	2	9	1013	0	.35	.19	30
May Ranch	31.6	68	22	-1	9	1035	0	.36	.12	22
Medford	31.3	69	22	3	9	1045	0	.37	.17	20
Newkirk	30.1	60	18	-1	9	1082	0	.62	.22	20
Red Rock	32.6	67	22	1	9	1005	0	.81	.63	20
Seiling	33.0	68	22	0	9	991	0	.41	.21	30
Woodward	33.1	67	22	1	8	988	0	.52	.22	22
NORTHEAST										
Bixby	33.6	65	19	2	10	972	0	1.84	.81	20
Burbank	31.3	61	27	-1	9	1044	0	.69	.32	20
Claremore	32.8	63	19	1	10	999	0	2.09	.59	21
Copan	30.3	60	19	-1	10	1075	0	1.52	.56	20
Foraker	29.9	62	27	-1	9	1088	0	1.14	.67	20
Inola	32.3	64	19	2	10	1014	0	1.73	.80	21
Jay	31.9	66	19	-4	9	1026	0	1.61	.59	21
Miami	29.7	63	19	-5	10	1094	0	1.33	.33	21
Nowata	29.7	61	22	-5	10	1094	0	1.22	.43	20
Pawnee	32.6	65	27	-2	9	1005	0	1.00	.39	20
Porter	33.8	65	19	4	10	966	0	1.86	.51	28
Pryor	31.3	64	19	-1	10	1044	0	1.92	.68	21
Skiatook	32.4	61	19	3	8	1012	0	1.41	.35	20
Vinita	29.1	61	19	-6	10	1114	0	1.47	.69	21
Wynona	31.8	63	27	1	9	1030	0	.90	.34	20
WEST CENTRAL										
Bessie	*****	***	***	***	***	****	****	*****	*****	***
Butler	33.5	70	22	1	8	976	0	.26	.19	23
Camargo	32.7	67	22	2	9	1000	0	.60	.32	30
Cheyenne	34.8	68	22	2	8	937	0	.73	.38	30
Erick	33.7	71	22	2	8	970	0	*****	*****	***
Putnam	33.4	68	22	3	8	980	0	.30	.16	23
Retrop	35.1	70	22	5	8	927	0	.38	.13	23
Watonga	34.2	68	22	3	8	956	0	.34	.20	30
Weatherford	34.1	69	22	3	8	958	0	.29	.12	23
CENTRAL										
Acme	37.0	72	22	4	9	****	****	2.10	1.49	28
Bowlegs	36.3	67	19	2	9	890	0	1.32	.79	20
Bristow	33.9	64	19	0	9	965	0	1.14	.58	20
Lake Carl Blac	33.4	68	22	-1	9	978	0	.51	.34	20
Chandler	35.1	68	22	3	9	927	0	1.27	.39	20
Chickasha	36.2	70	22	3	9	894	0	1.51	.80	28
El Reno	33.8	69	22	1	9	966	0	.41	.20	20
Guthrie	35.1	70	22	4	9	925	0	.45	.20	20
Kingfisher	34.3	70	22	2	9	953	0	.46	.21	30
Marena	34.0	69	22	2	9	962	0	.59	.37	20
Minco	35.2	70	22	5	8	923	0	.29	.16	20
Marshall	33.6	70	22	1	9	972	0	.37	.27	20
Ninnekah	36.4	69	22	3	9	****	****	1.72	1.00	28
Norman	36.0	69	22	6	9	897	0	1.32	.94	20
Oilton	33.4	65	27	-1	9	979	0	1.32	.55	20
OKC East	36.0	69	22	4	9	899	0	1.47	1.15	20
OKC North	36.0	69	22	5	9	900	0	1.16	.96	20
OKC West	36.3	69	22	6	8	889	0	1.15	.95	20
Okemah	35.6	67	22	2	10	911	0	1.11	.49	20
Perkins	34.1	66	22	3	9	956	0	1.12	.49	20
Shawnee	36.0	66	22	4	9	898	0	.65	.28	20
Spencer	35.1	69	22	2	9	926	0	1.37	.89	20
Stillwater	33.8	68	22	1	9	966	0	1.01	.66	20
Washington	36.7	71	22	5	9	876	0	1.92	1.08	28
EAST CENTRAL										
Cookson	34.4	67	19	0	9	948	0	2.38	.87	29
Eufaula	36.0	66	19	6	9	899	0	2.73	.96	20
Haskell	33.7	64	19	4	10	971	0	1.91	.59	20
Hectorville	34.5	65	19	5	10	945	0	1.32	.61	20
Holdenville	36.5	67	19	3	9	883	0	1.59	.59	28
McAlester	37.1	69	22	3	10	866	0	2.41	.69	28
Okmulgee	35.0	65	19	3	10	930	0	1.89	1.12	20
Sallisaw	35.1	70	19	4	9	925	0	2.67	.59	28
Stigler	35.6	67	19	6	10	911	0	2.12	.56	28
Stuart	37.1	68	19	4	9	865	0	2.00	.64	29
Tahlequah	34.0	67	19	2	9	962	0	1.47	.60	21
Webbers Falls	35.1	68	19	5	10	928	0	2.34	.76	28
Westville	33.9	66	19	1	8	964	0	1.67	.54	21
SOUTHWEST										
Altus	37.2	74	22	9	8	863	0	2.32	2.06	28
Apache	36.0	69	22	6	8	899	0	.99	.66	28
Fort Cobb	36.4	69	22	6	8	****	****	.51	.21	20
Grandfield	39.2	73	22	10	8	****	****	2.48	1.91	28
Hinton	34.6	67	22	3	8	944	0	.63	.24	20
Hobart	*****	***	***	***	***	****	****	*****	*****	***
Hollis	36.3	75	22	6	8	890	0	1.02	.44	28
Mangum	35.4	74	22	7	8	918	0	1.56	1.25	28
Medicine Park	37.9	71	22	6	8	840	0	1.92	1.47	28
Tipton	37.6	74	22	10	8	849	0	3.35	2.87	28
Walters	38.5	74	22	7	9	820	0	2.13	1.76	28
SOUTH CENTRAL										
Ada	35.8	70	23	10	10	904	0	3.08	.92	24
Ada	37.0	68	22	1	9	868	0	1.71	.87	28
Ardmore	39.2	71	22	7	9	801	0	1.68	.97	28
Burneyville	39.6	72	22	4	9	787	0	1.81	1.15	28
Byars	37.2	69	22	5	9	861	0	1.97	.94	28
Centrahoma	37.7	70	19	4	10	846	0	1.86	1.01	28
Durant	40.1	71	19	9	9	770	0	2.57	1.42	28
Fittstown	37.1	71	19	3	10	864	0	.97	.30	28
Ketchum Ranch	38.0	71	22	6	9	836	0	2.43	1.90	28
Lane	38.3	70	19	6	9	828	0	2.93	1.08	28
Madill	37.9	71	23	16	10	841	0	3.36	1.35	24
Madill	39.6	71	22	7	9	787	0	1.91	1.13	28
Newport	39.0	73	22	7	9	805	0	1.41	.88	28
Pauls Valley	37.7	71	22	6	9	847	0	2.26	1.31	28
Ringling	39.0	72	19	8	9	805	0	1.59	1.04	28
Sulphur	37.3	70	22	3	9	858	0	1.90	1.00	28
Tishomingo	37.9	71	19	6	10	840	0	1.74	.95	28
Vanoss	37.0	70	22	1	10	867	0	2.09	1.16	28
Waurika	39.3	74	22	7	9	798	0	1.96	1.42	28
SOUTHEAST										
Antlers	38.1	72	19	3	10	834	0	4.33	1.66	28
Broken Bow	38.5	71	19	7	9	822	0	4.59	1.17	28
Clayton	38.0	71	20	5	10	838	0	2.52	.52	20
Cloudy	38.2	69	19	7	9	830	0	5.45	2.05	20
Hugo	39.5	70	19	8	9	791	0	4.99	1.43	28
Idabel	39.6	71	19	11	9	787	0	3.60	.95	29
Mt Herman	37.8	68	19	7	9	843	0	3.68	.79	29
Talihina	37.4	69	20	4	9	855	0	2.45	.68	20
Wilburton	36.7	70	20	4	10	878	0	1.94	.43	28
Wister	35.9	71	20	5	9	903	0	2.07	.43	20

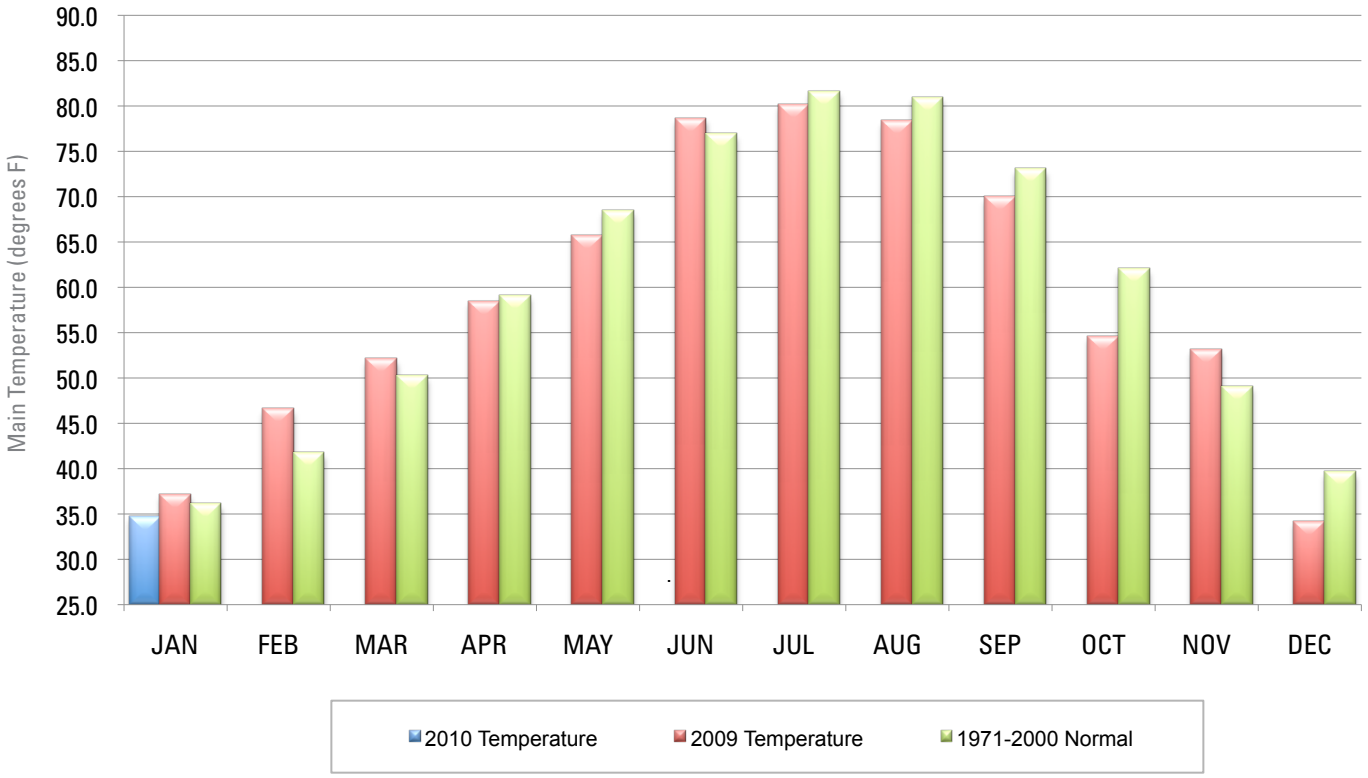
2009 AND 2010 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



January 2010 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Jan-09
Panhandle	0.43	-0.09	54th Wettest	1.92 (2005)	0.01 (1904)	0.03
North Central	0.43	-0.50	44th Driest	4.43 (1949)	0.00 (1912)	0.08
Northeast	1.45	-0.12	58th Wettest	6.01 (1949)	0.01 (1986)	0.57
West Central	0.41	-0.47	42nd Driest	4.08 (1949)	0.00 (1912)	0.08
Central	1.07	-0.30	56th Driest	6.18 (1949)	0.00 (1912)	0.67
East Central	2.04	-0.09	57th Wettest	7.99 (1932)	0.04 (1986)	2.17
Southwest	1.69	0.63	30th Wettest	4.89 (1949)	0.00 (1902)	0.39
South Central	1.93	0.03	45th Wettest	6.85 (1932)	0.00 (1909)	1.00
Southeast	3.56	0.75	41st Wettest	11.08 (1932)	0.11 (2003)	1.46
Statewide	1.41	-0.04	51st Wettest	5.23 (1949)	0.04 (1986)	0.70

2009 AND 2010 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



January 2010 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Jan-09 (F)
Panhandle	32.4	-0.6	42nd Coolest	42.7 (2006)	19.5 (1930)	35.8
North Central	32.0	-1.5	34th Coolest	44.6 (2006)	19.4 (1930)	35.1
Northeast	31.5	-3.1	18th Coolest	46.0 (2006)	21.3 (1940)	34.2
West Central	34.0	-1.0	36th Coolest	46.2 (2006)	20.8 (1930)	37.1
Central	35.0	-1.2	36th Coolest	47.4 (2006)	22.5 (1930)	36.8
East Central	35.3	-2.0	24th Coolest	47.8 (2006)	24.8 (1940)	37.2
Southwest	36.7	-0.8	38th Coolest	47.8 (1923)	24.2 (1930)	38.6
South Central	38.3	-0.8	34th Coolest	49.5 (1923)	27.0 (1930)	40.1
Southeast	38.0	-1.6	24th Coolest	49.4 (1952)	28.3 (1979)	40.3
Statewide	34.7	-1.4	31st Coolest	46.4 (2006)	23.5 (1930)	37.1

RECORD EVENT REPORTS

Description	Day	Location	Record	Previous Record	Year
Daily Maximum Rainfall	28	Oklahoma City	1.06 inches	0.44 inches	1989
Daily Maximum Snowfall	29	Oklahoma City	5.0 inches	1.8 inches	1979

MESONET EXTREMES FOR JANUARY 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	70	22nd	Beaver	-6	8th	Goodwell	0.56	Arnett	0.32	30th	Hooker
North Central	69	22nd	Fairview	-1	9th	Blackwell	0.81	Red Rock	0.63	20th	Red Rock
Northeast	66	19th	Jay	-6	10th	Vinita	2.09	Claremore	0.81	20th	Bixby
West Central	71	22nd	Erick	1	8th	Butler	0.73	Cheyenne	0.38	30th	Cheyenne
Central	71	22nd	Washington	-1	9th	Oilton	2.10	Acme	1.49	28th	Acme
East Central	70	19th	Sallisaw	0	9th	Cookson	2.73	Eufaula	1.12	20th	Okmulgee
Southwest	75	22nd	Hollis	3	8th	Hinton	3.35	Tipton	2.87	28th	Tipton
South Central	74	22nd	Waurika	1	9th	Ada	2.93	Lane	1.90	28th	Ketchum Ranch
Southeast	72	19th	Antlers	3	10th	Antlers	5.45	Cloudy	2.05	20th	Cloudy
Statewide	75	22nd	Hollis	-6	10th	Vinita	5.45	Cloudy	2.87	28th	Tipton

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 –27 degrees at Vinita on February 13, 1905. The latter thermometer reading is tied as 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.

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	-27 degrees, Vinita, February 13, 1905
Hottest recorded	92 degrees, Cloud Chief, January 31, 1911
Coldest recorded	-27 degrees, Watts, January 18, 1930

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).

Precipitation

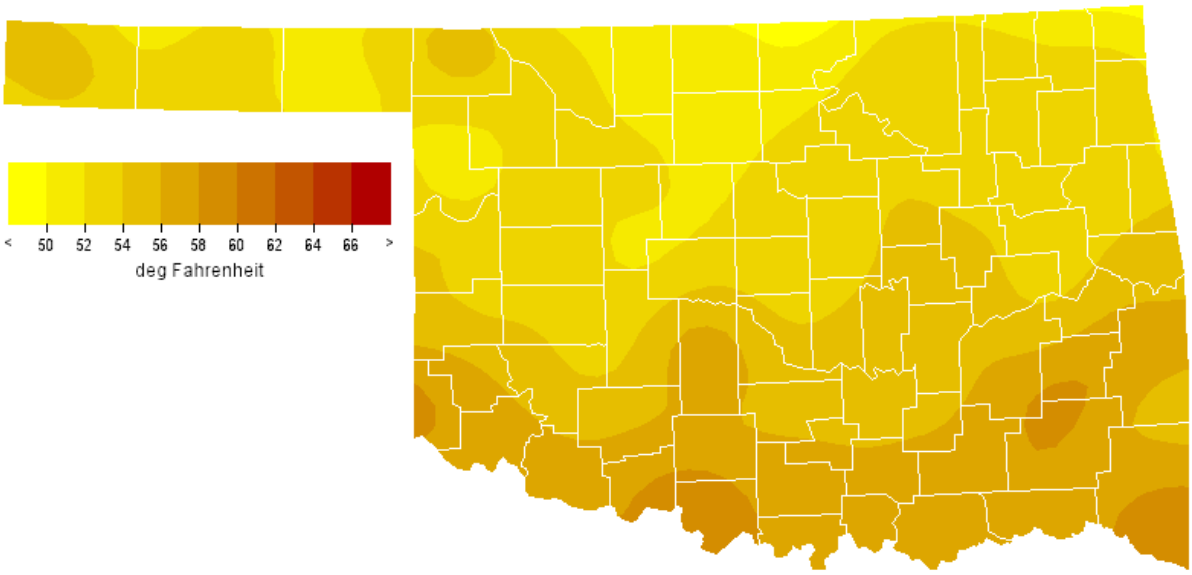
Mean	1.77 inches
Wettest February	1938, 6.44 inches
Driest February	1947 and 1996, 0.20 inches
Wettest location	Idabel, 3.60 inches
Driest location	Kenton, 0.33 inches
Most recorded	13.21 inches, Tuskahoma, 1945

Tornadoes

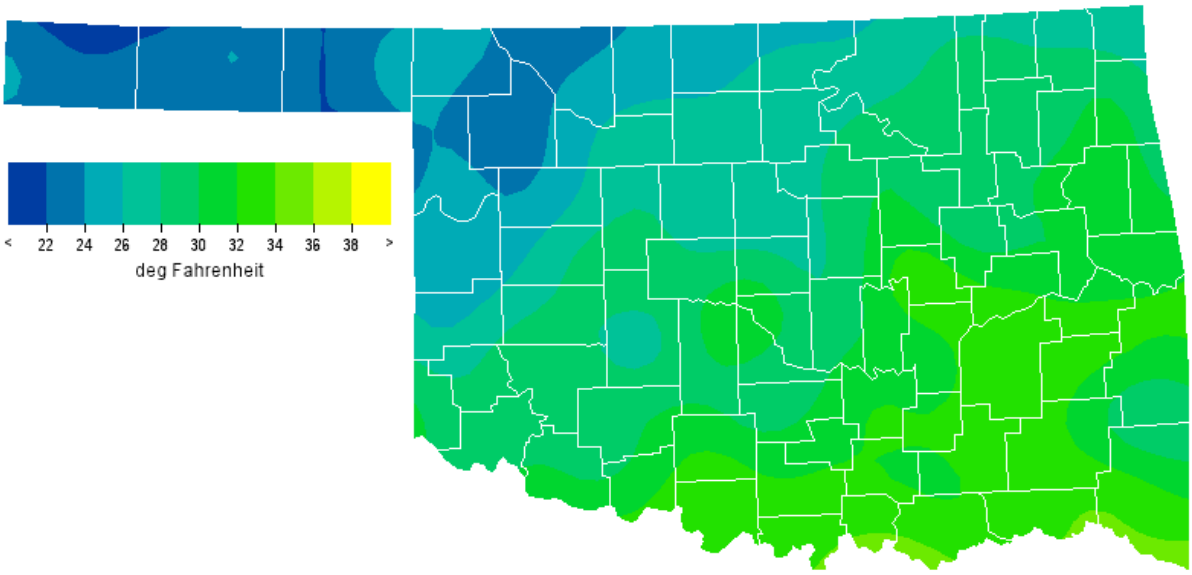
Average February Tornadoes	0.8
Most	6 (1975)

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."

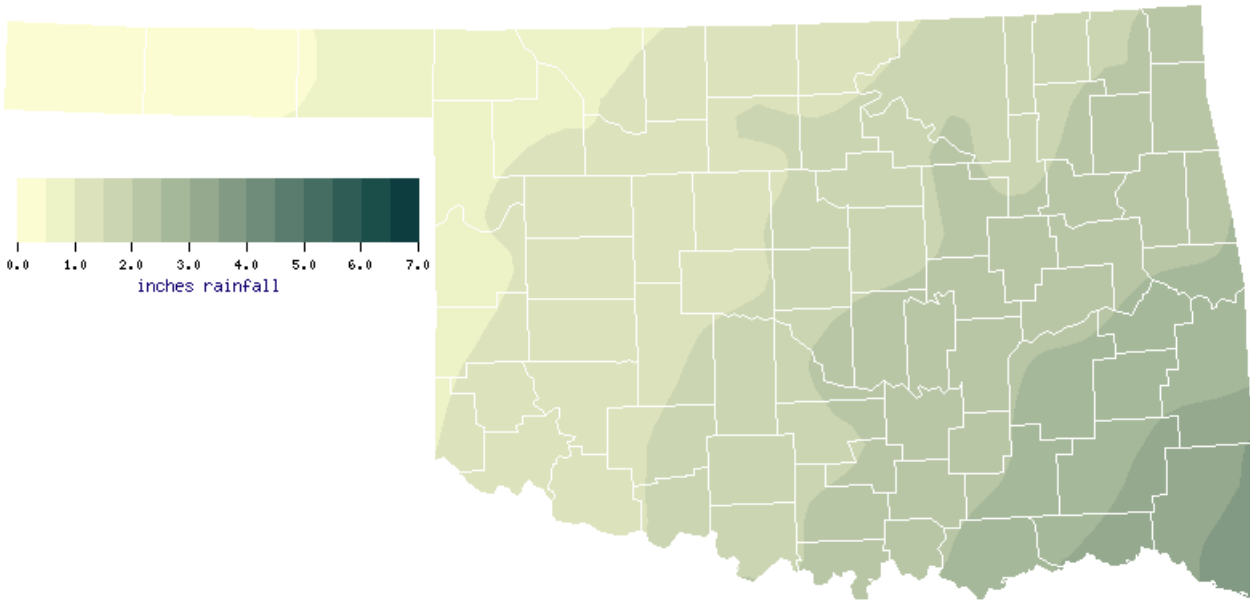
FEBRUARY NORMAL DAILY MAXIMUM TEMPERATURE (1971-2000)



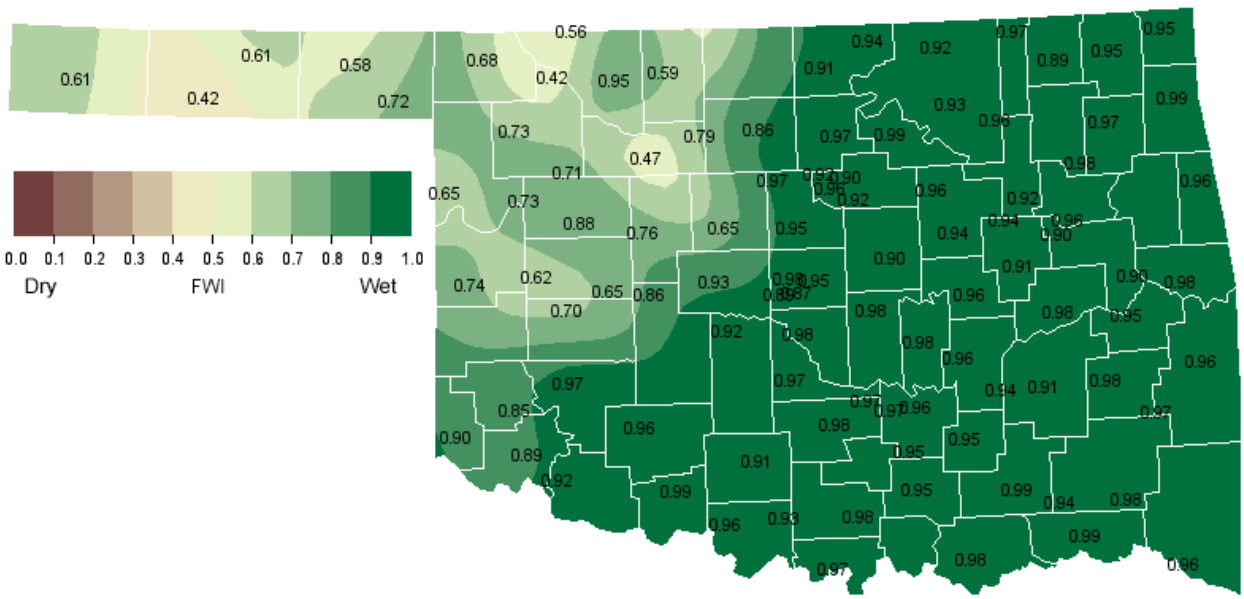
FEBRUARY NORMAL DAILY MINIMUM TEMPERATURE (1971-2000)



FEBRUARY NORMAL PRECIPITATION (1971-2000)



FEBRUARY 1, 2010 SOIL MOISTURE CONDITIONS AT 25CM



FEBRUARY 2010 DROUGHT INDICES

U.S. Drought Monitor
Oklahoma

February 2, 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 (01/26/2010 map)	100.0	0.0	0.0	0.0	0.0	0.0
3 Months Ago (11/10/2009 map)	100.0	0.0	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 (02/03/2009 map)	26.0	74.0	45.8	21.9	0.0	0.0

Intensity:

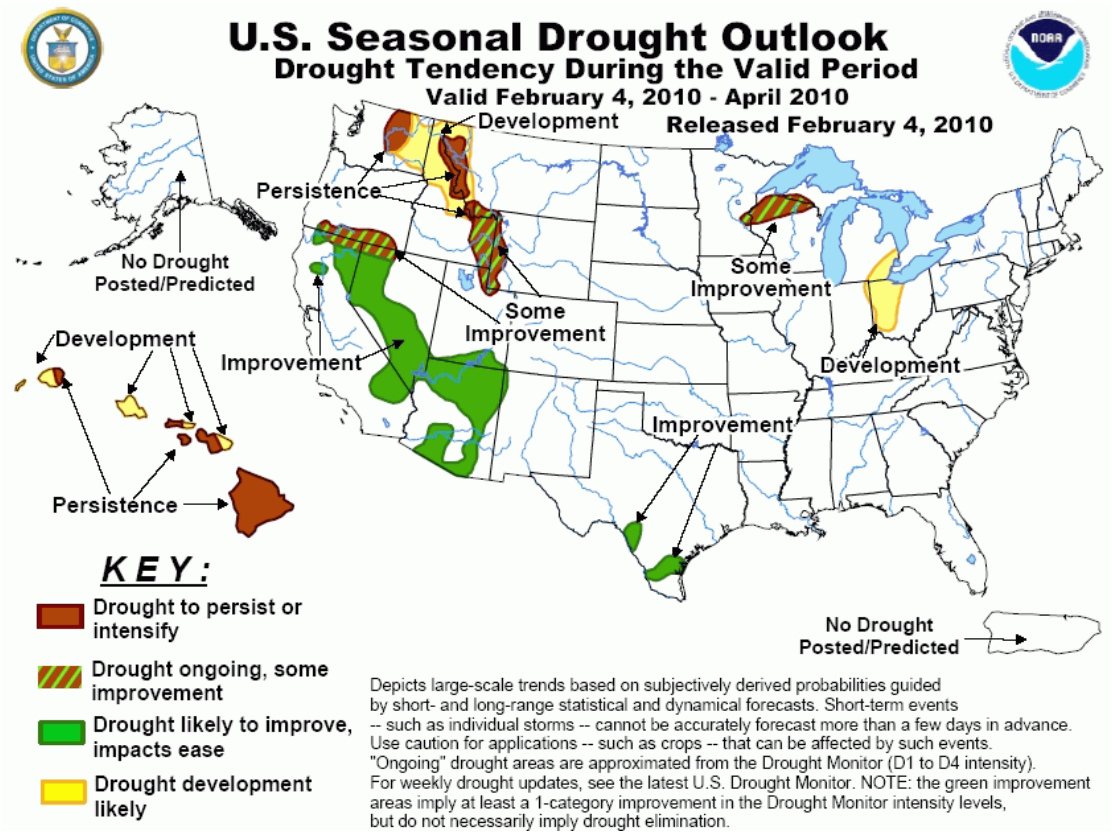
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

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

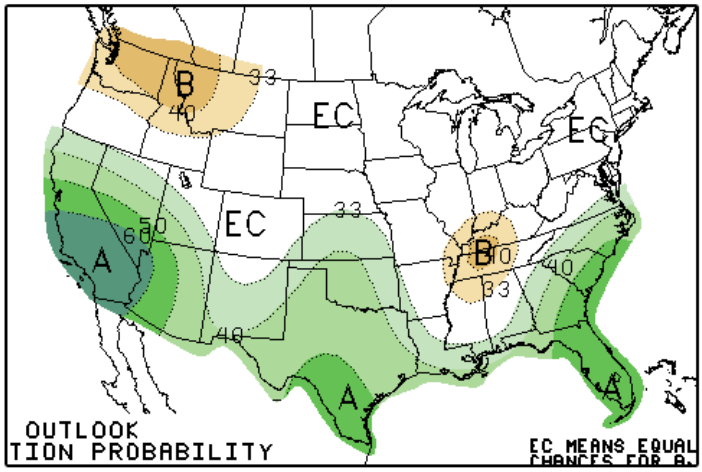
http://drought.unl.edu/dm

USDA · National Drought Mitigation Center

Released Thursday, February 4, 2010
Author: M. Rosencrans, CPC/NOAA



FEBRUARY 2010 U.S. PRECIPITATION FORECAST



Percent Likelihood of Above or Below Average Precipitation*

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

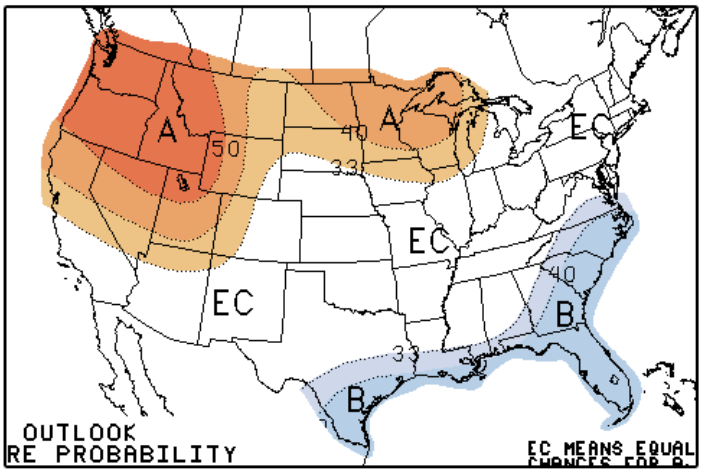
A = Above

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

B = Below

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

FEBRUARY 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%

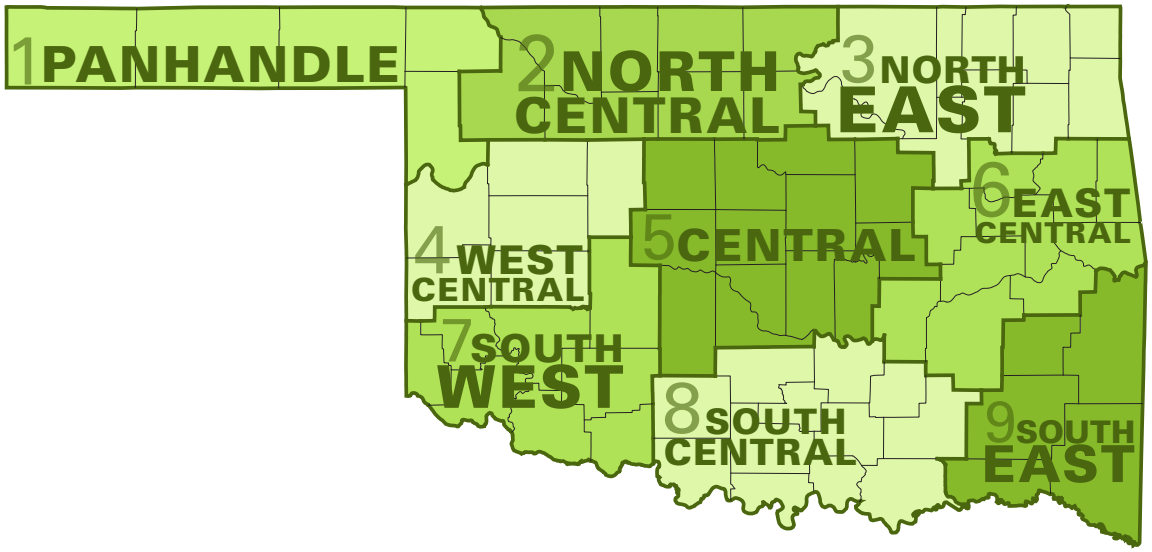
B = Below

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

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

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