OKLAHOMA MONTHLY CLIMATE SUMMARY
FEBRUARY 2009

OKLAHOMA CLIMATOLOGICAL SURVEY

February 2009 will not be remembered for its warmth, even though it was the 10th warmest on record, nor for its dryness, with a less-impressive rank of 46th driest. Unfortunately, the month's claim to fame comes from the deadly tornado which struck Lone Grove on the 10th. The EF4 twister, February's first violent tornado since accurate statistics began in 1950, killed eight and injured 46 others. Another couple of tornadoes roared through the north part of Oklahoma City and Edmond. The Lone Grove tornado was the state's first killer tornado during the month of February since 1975, and the strongest since two F3 tornadoes struck in 1961. Six confirmed tornadoes struck the state on the 10th, tying it with 1975 for the most tornadoes during the month of February. Other than that which fell on the 10th, precipitation was almost non-existent. The February statistics helped the winter season to finish as the 16th driest and 33rd warmest on record.

Precipitation

Other than a few generous totals in the extreme northeast, most of the state was dry during February. The western half of the state in general received less than a half of an inch of precipitation. The northeast finished just a tad above normal to rank as the 35th wettest February on record for that area. The state as a whole was about a half of an inch below normal. The Pryor Mesonet site recorded 4.01 inches to lead the state in rainfall. Buffalo had a paltry 0.07 inches to bring up the rear.

Temperature

Most areas of the state were 4-6 degrees above normal for the month and ranked in the top 15 warmest. The statewide average was nearly 5 degrees above normal. The month's highest temperature of 91 degrees came on the 26th at Madill and the coldest temperature struck early in the month on the fourth when the Nowata Mesonet site recorded a low of 9 degrees. The winter season was more than a degree above normal.

February 2009 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	91ºF	Madill	26
Low Temperature	9ºF	Nowata	4
High Precipitation	4.01 in.	Pryor	
Low Precipitation	0.07 in.	Buffalo	

February Daily Highlights

February 1-4: The first four days of the month were dry and a bit warm, despite a cold front on the first. Highs were 5-10 degrees above normal in the 50s, with a few 60s thrown in. Gusty winds made the mornings feel quite cool at times.

February 5-7: An area of low pressure at the surface moved into northwestern Oklahoma on the fifth, kicking up winds from the south gusting to 30 mph. Lows fell into the 20s and 30s but quickly rose into the 60s and 70s. Oklahoma City tied its record-high temperature on the sixth with a reading of 73 degrees. Warm moist air surged northward over the next couple of days until a cold front arrived late on the seventh. The Oklahoma Mesonet site at Guthrie registered a low of 61 degrees on the seventh.

February 8-11: Skies turned cloudy overnight on the eighth as an upper-level storm system moved in from the west. Lows were very mild and rain formed late with the surge of moisture from the Gulf of Mexico. Rain fell statewide, although it was heaviest in south central and central Oklahoma. Amounts were generally less than an inch. A pacific front moved across the state on the ninth and brought winds gusting up to 60 mph with it. Highs in the 60s and 70s prevailed despite the front. The front then started to lift back on the 10th as a warm front with a dryline and cold front farther to the west and north. Dewpoints increased throughout the day to the east of the dryline. Storms kicked off first in central and southwestern Oklahoma that afternoon, quickly becoming severe in the warm, moist air. Large hail to the size of softballs was reported in Osage County, while baseball size hail was reported in central Oklahoma. Unfortunately, tornadoes were included in the severe weather reports, the worst of which struck the

small town of Lone Grove in Carter County. That twister was estimated by a NWS survey team as an EF4, the most powerful tornado reported in Oklahoma during February since accurate tornado statistics began in 1950. Its toll was tremendous, killing eight and injuring 46 others. Five other tornadoes were reported on the 10th. An EF2 twister struck Edmond and severely damaged several houses and injuring one person, according to preliminary reports. An EF1 tornado touched down in Logan County and damaged a few homes and trees. Three other weak tornadoes were reported that day as well with little damage reported. The storms produced more heavy rain than any other type of weather as they progressed to the northeast. Several flash flooding reports came in late on the 10th and early on the 11th as the storms dropped close to 4 inches of rain in the northeast corner of the state. The 11th turned out to be a pretty nice day following the violent weather of the 10th. High temperatures rose into the 50s and 60s under a sunny sky after lows in the 30s and 40s.

February 12-16: This five-day period was definitely quieter by comparison than the previous few days. The 12th and 13th were quite pleasant with seasonable lows to go along with highs mostly in the 60s and 70s. A cold front late on the 13th cooled things down for a bit, however, and the remainder of the period saw a slow warm up back into more seasonable territory.

February 17-20: An approaching cold front on the 17th brought gusty southerly winds and unseasonably warm temperatures. Highs rose into the 80s in southern Oklahoma but remained in the 50s in northeastern Oklahoma behind the front. The next three days were windy and dry, with cold mornings and warm afternoons. The strong winds and low humidity created dangerous wildfire conditions.

February 21-26: A strong cold front entered the state early on the 21st and dropped temperatures 10-20 degrees cooler than the previous day. Wind gusts up to 60 mph accompanied the front in western Oklahoma. High temperatures remained in the 40s and 50s. The following morning was clear and frigid with lows in the teens and 20s. A strong warm up occurred over the next several days along with strong southerly winds. Fire danger was high over the entire period. The warmth culminated on the 26th with record high temperatures over southern Oklahoma. Madill experienced February's highest temperature on the 26th with a reading of 91 degrees.

February 27-28: A powerful cold front roared through the state for the month's final two days. Northerly winds gusting to 35 mph combined with temperatures in the teens and 20s to produce wind chills down close to zero in some parts of the state. High temperatures on the 28th only rose into the 30s and 40s.

February 2009 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2009)
Month (February)	6.5ºF	4.8ºF	10th Warmest
Season-to-date (Dec-Feb)	40.5ºF	1.6ºF	33rd Warmest
Year-to-Date (Jan-Feb)	41.6ºF	2.8ºF	25th Warmest

Precipitation

	Total	Depart.	Rank (1895-2009)
Month (February)	1.17 in.	-0.59 in.	46th Driest
Season-to-date (Dec-Feb)	2.77 in.	-2.46 in.	16th Driest
Year-to-Date (Jan-Feb)	1.87 in.	-1.34 in.	30th Driest

Depart. = Departure from 30-year normal

Record Event Reports

Description	Day	Location	Record	Previous Record	Year
Highest Maximum Temperature (tied)	6	Oklahoma City	73	73	1904
Highest Maximum Temperature	26	McAlester	82	81	1986
Highest Maximum Temperature	26	Tulsa	81	79	1996

February 2009 Severe Weather

Significant Tornadoes (EF2 or greater)

EF-rating	Location	County	Day
2	NW 178th and Western - 0.5 NE of Waterloo and Broadway	Oklahoma/ Logan	10
4	1 W Petersburg - Lone Grove - 2 SE Springer	Jefferson/ Love/Carter	10

Flooding

Location	County	Day
Bartlesville	Washington	10
4 NE Pawnee	Pawnee	10
3 ESE Fairfax	Osage	10

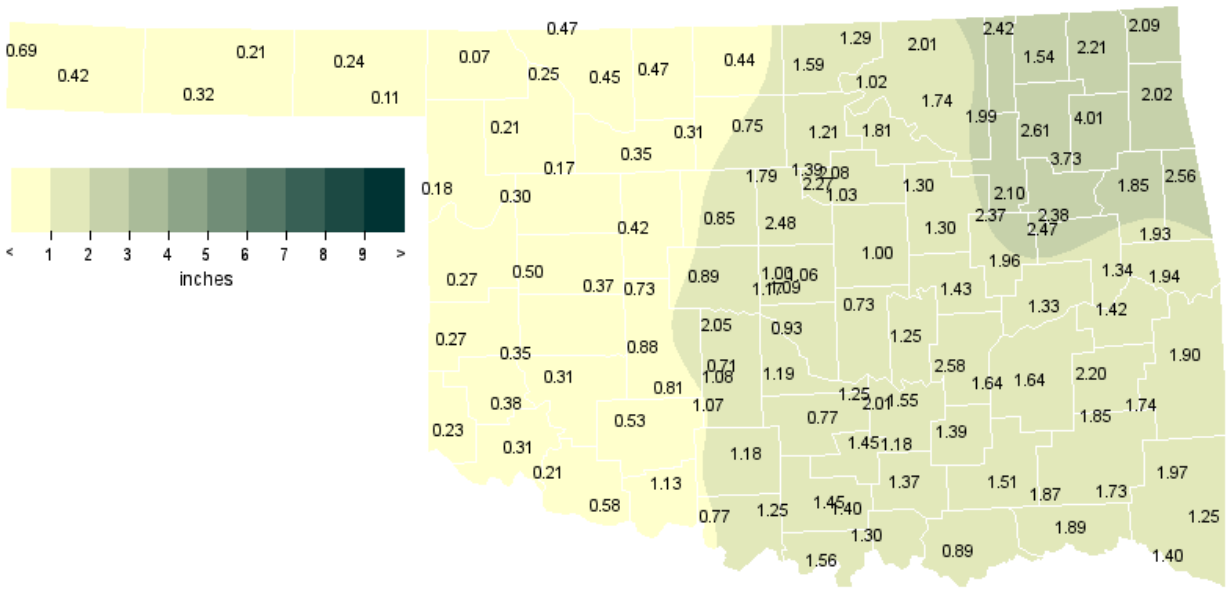
Hail (2 inches in diameter or greater)

Size (in.)	Location	County	Day
4.25	Okesa	Osage	10
2.75	4 N Bethany	Oklahoma	10
2.75	Yukon	Canadian	10
2.75	10 S Guthrie	Logan	10
2.75	Guthrie	Logan	10
2.75	Wynona	Osage	10
2.75	Nelagoney	Osage	10
2.50	2 W Yukon	Canadian	10
2.00	5 NE Yukon	Canadian	10
2.00	Anadarko	Caddo	10
2.00	4 E Minco	Grady	10

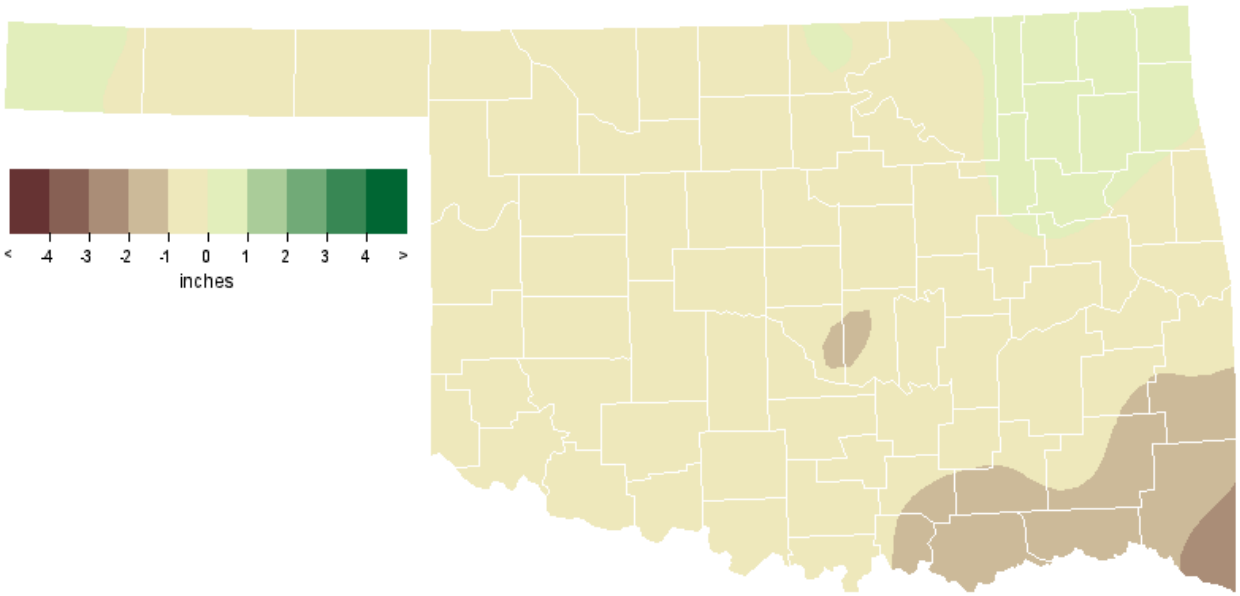
Wind Gusts (70 mph or greater)

No significant wind gusts were reported in the state.

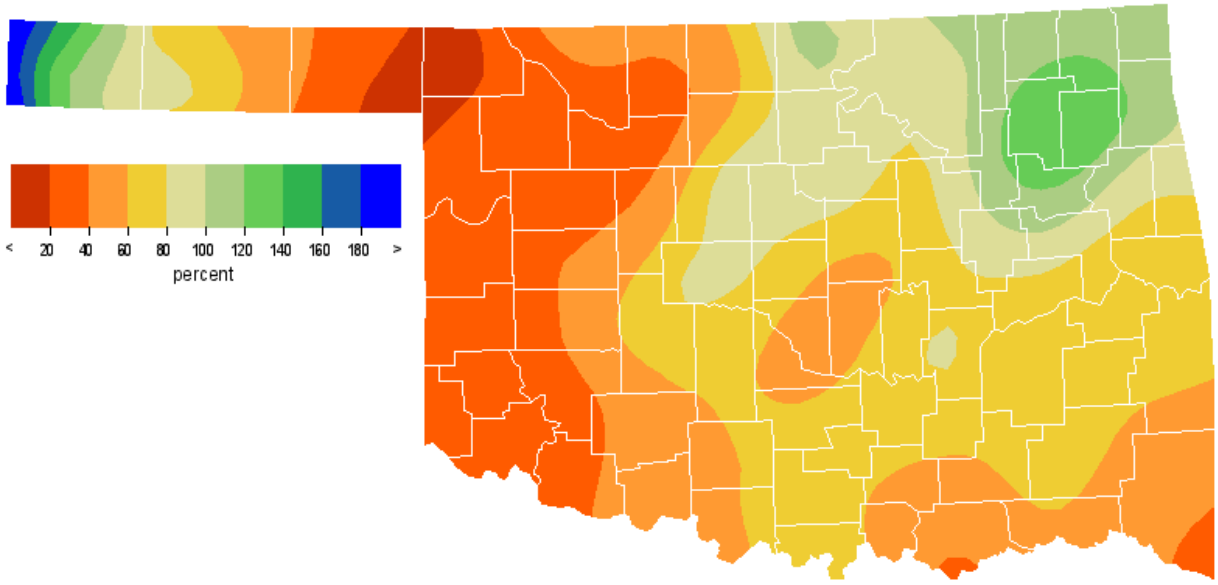
February 2009 Observed Precipitation



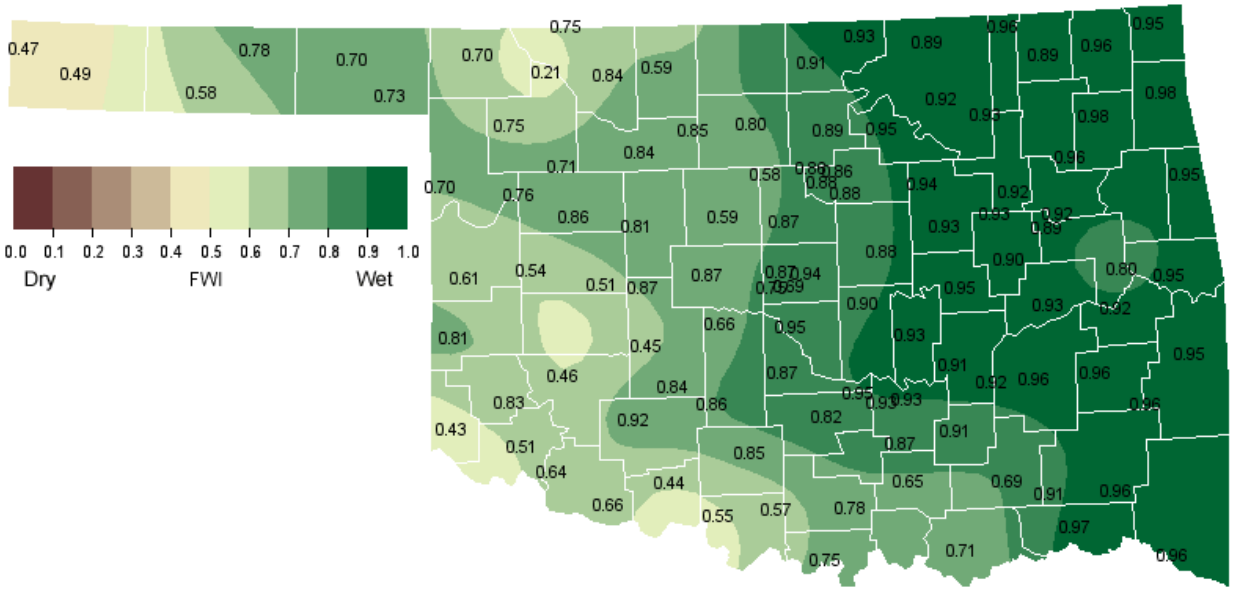
February 2009 Departure from Normal Precipitation



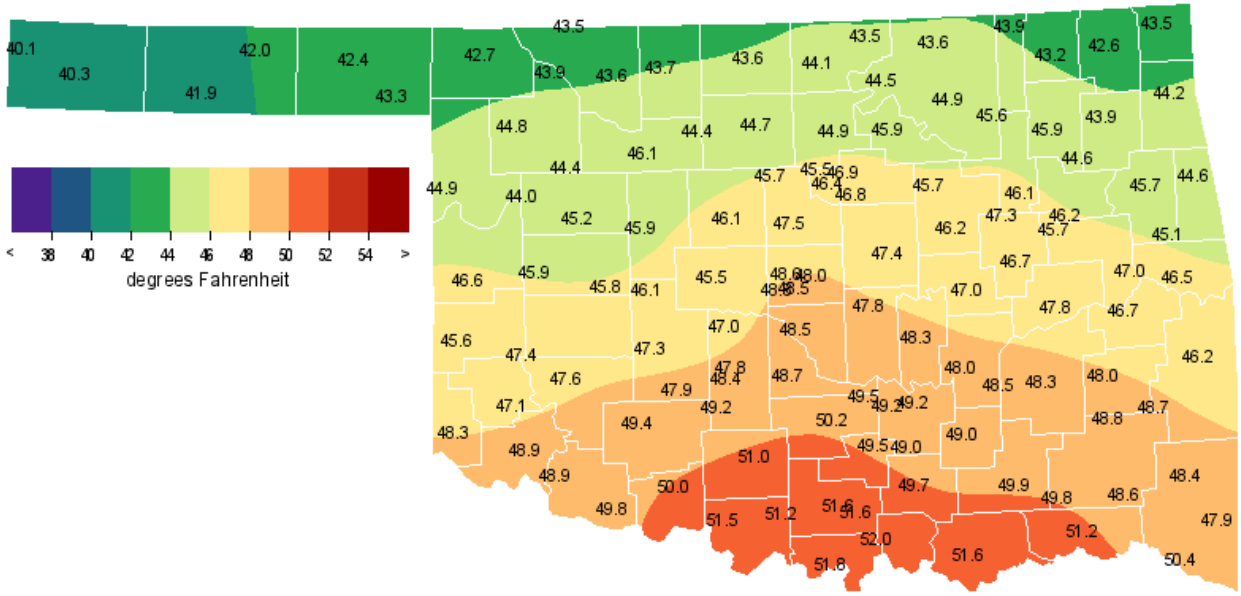
February 2009 Percent of Normal Precipitation



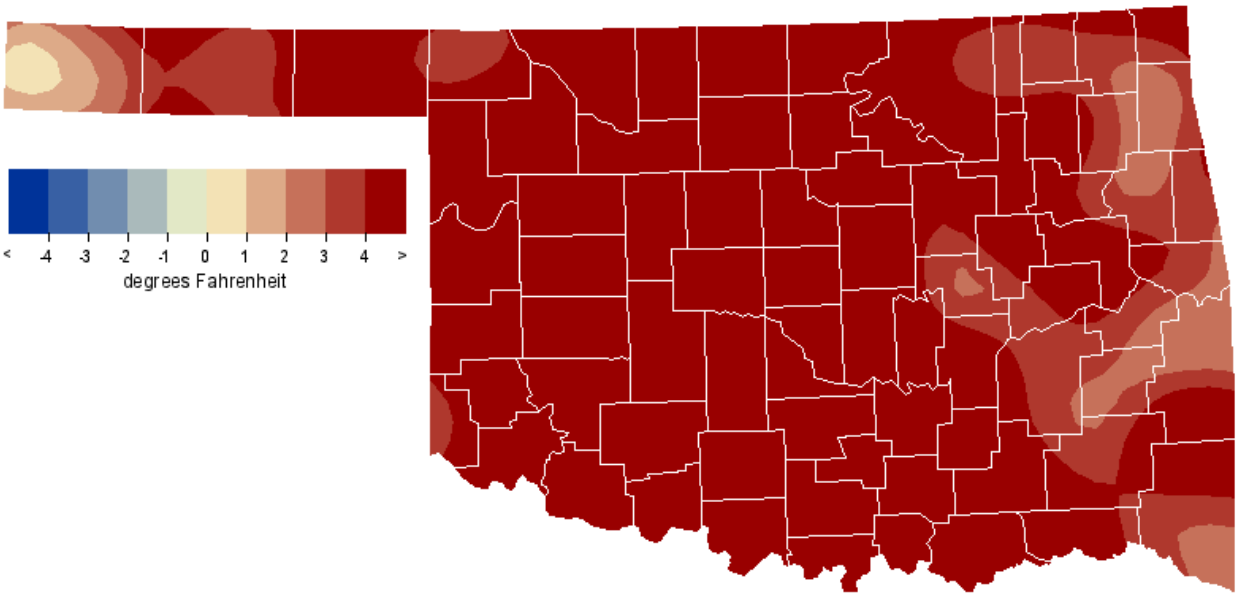
February 2009 Average Soil Moisture at 25cm



February 2009 Average Temperature



February 2009 Departure from Normal Temperature



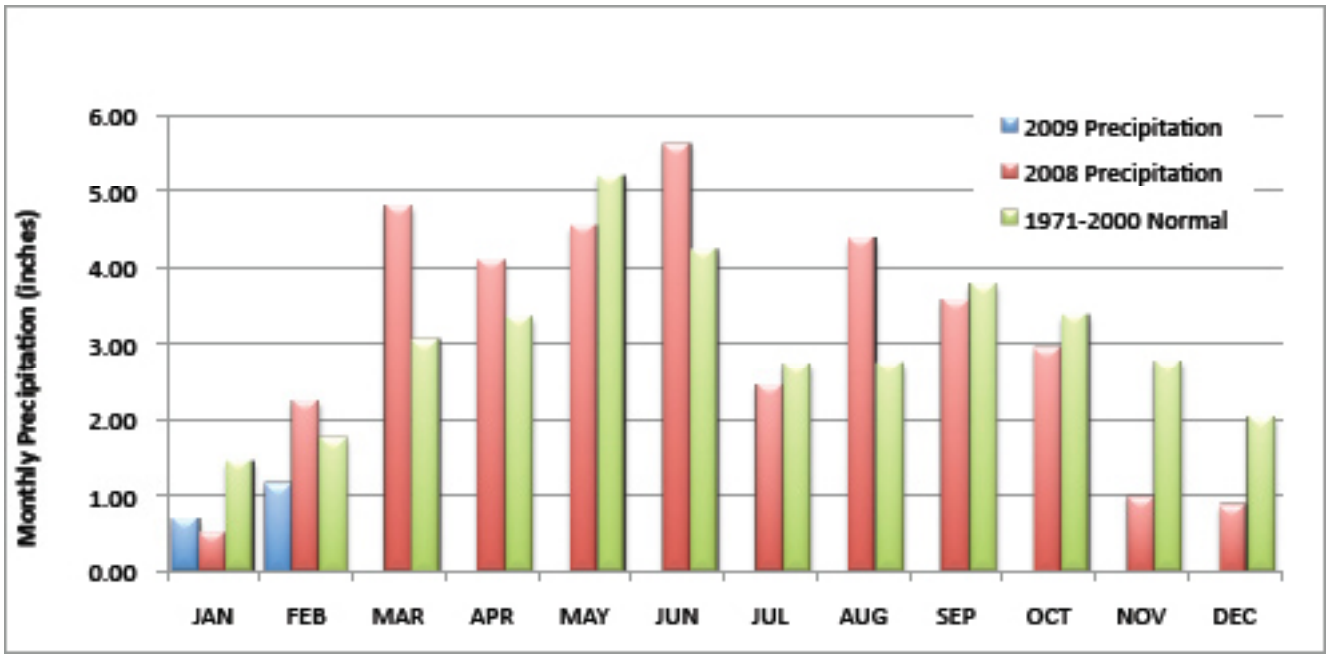
Mesonet Monthly Summary for February 2009

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	44.9	77	5	15	2	564	0	.18	.18	9
Beaver	42.4	84	6	10	2	633	0	.24	.23	9
Boise City	40.3	74	6	12	15	691	0	.42	.42	8
Buffalo	42.7	82	6	13	14	625	0	.07	.07	9
Goodwell	41.9	77	6	13	1	646	0	.32	.26	8
Hooker	42.1	80	6	14	1	643	0	.21	.12	8
Kenton	40.2	72	6	10	15	696	0	.69	.69	8
Slapout	43.3	81	6	15	21	608	0	.11	.11	9
NORTH CENTRAL										
Alva	43.6	78	17	15	4	600	0	.45	.28	9
Blackwell	44.1	75	7	11	4	585	0	1.59	1.22	10
Breckinridge	44.7	75	7	12	4	569	0	.75	.37	10
Cherokee	43.7	78	17	15	4	597	0	.47	.33	9
Fairview	46.1	80	17	17	4	530	0	.35	.31	9
Freedom	43.9	77	6	15	4	591	0	.25	.15	11
Lahoma	44.4	76	17	16	4	578	0	.31	.28	9
May Ranch	43.4	77	6	14	4	605	0	.47	.29	11
Medford	43.7	76	17	14	4	597	0	.44	.31	9
Newkirk	43.4	73	10	12	4	605	0	1.29	.81	10
Red Rock	45.0	76	7	12	4	561	1	1.21	.67	10
Seiling	44.4	77	17	15	22	576	0	.17	.16	9
Woodward	44.8	76	17	16	14	566	0	.21	.17	9
NORTHEAST										
Bixby	46.1	82	26	17	4	531	1	2.10	.91	10
Burbank	44.5	76	7	10	4	574	0	1.02	.55	10
Claremore	45.9	80	26	13	4	535	0	2.61	1.35	10
Copan	43.9	77	26	9	4	592	0	2.42	1.80	10
Foraker	43.5	76	7	9	4	601	1	2.01	.96	10
Inola	44.6	80	26	13	4	572	0	3.73	2.81	10
Jay	44.3	75	26	9	4	581	0	2.02	.94	11
Miami	43.5	75	26	13	4	603	0	2.09	.97	10
Nowata	43.2	78	26	9	4	609	0	1.54	.91	10
Pawnee	45.9	77	7	11	4	537	2	1.81	1.54	10
Porter	46.2	81	26	15	4	526	1	2.38	1.65	10
Pryor	44.0	78	26	12	4	589	0	4.01	2.66	10
Skiatook	45.6	78	26	15	4	543	0	1.99	.95	11
Vinita	42.7	77	26	9	4	624	0	2.21	1.52	10
Wynona	45.0	78	26	11	4	563	1	1.74	.72	11
WEST CENTRAL										
Bessie	*****	***	***	***	***	****	****	*****	*****	***
Butler	45.9	79	17	14	4	536	0	.50	.29	9
Camargo	44.0	76	17	15	4	588	0	.30	.23	9
Cheyenne	46.5	75	17	19	15	517	0	.27	.25	9
Erick	45.5	78	26	15	2	546	0	.27	.27	9
Putnam	45.2	77	17	17	4	556	0	*****	*****	***
Retrop	47.4	80	26	21	15	492	0	.35	.35	9
Watonga	45.8	77	17	17	4	539	0	.42	.37	9
Weatherford	45.8	76	17	19	4	537	0	.37	.23	9
CENTRAL										
Acme	49.2	80	26	20	2	444	2	1.07	.67	9
Bowlegs	48.3	83	26	17	4	471	5	1.25	.87	10
Bristow	46.3	81	26	13	4	527	2	1.30	.83	10
Lake Carl Blac	45.5	76	7	12	4	545	1	1.39	.80	10
Chandler	47.4	81	26	16	4	496	3	1.00	.34	10
Chickasha	47.9	80	26	18	22	481	1	.71	.40	9
El Reno	45.5	78	17	14	4	547	0	.89	.55	10
Guthrie	47.5	76	26	18	4	492	2	2.48	2.09	10
Kingfisher	46.1	77	17	14	4	531	0	.85	.49	10
Marena	46.3	77	26	14	4	524	2	2.27	1.90	10
Minco	47.0	78	17	20	4	504	0	2.05	1.33	10
Marshall	45.7	75	7	12	4	542	1	1.79	1.32	10
Ninnekah	48.3	79	26	20	22	468	1	1.08	.64	9
Norman	48.5	80	26	20	4	464	2	.93	.51	10
Oilton	45.7	79	26	11	4	542	2	1.30	.73	10
OKC East	48.5	78	17	20	4	463	1	1.09	.57	10
OKC North	48.7	78	17	18	4	458	1	1.00	.49	10
OKC West	48.8	78	17	23	4	455	1	1.17	.64	10
Okemah	47.0	83	26	16	4	506	3	1.43	1.06	10
Perkins	46.8	76	7	16	4	511	2	1.03	.68	10
Shawnee	47.8	81	26	17	4	483	2	.73	.32	9
Spencer	48.0	79	26	16	4	476	1	1.06	.65	10
Stillwater	46.9	77	7	14	4	509	3	2.08	1.76	10
Washington	48.7	81	26	19	4	458	3	1.19	.68	10
EAST CENTRAL										
Calvin	48.0	84	26	19	4	480	5	2.58	1.77	10
Cookson	45.2	76	26	10	4	556	0	1.93	.87	10
Eufaula	47.8	80	26	16	4	485	2	1.33	.80	10
Haskell	45.7	82	26	15	4	543	1	2.47	1.71	10
Hectorville	47.3	82	26	15	4	498	2	2.37	1.16	10
McAlester	48.3	81	26	15	4	471	3	1.64	1.10	10
Okmulgee	46.7	84	26	15	4	517	5	1.96	1.38	10
Sallisaw	46.6	77	26	14	4	518	2	1.94	.75	10
Stigler	46.6	78	26	14	4	516	0	1.42	.88	10
Stuart	48.5	82	26	18	4	465	4	1.64	1.16	10
Tahlequah	45.7	77	26	12	4	541	0	1.85	.89	10
Webbers Falls	47.0	78	26	19	4	506	2	1.34	.71	10
Westville	44.6	75	26	13	4	572	0	2.56	1.21	10
SOUTHWEST										
Altus	48.8	84	26	20	2	453	0	.31	.31	9
Apache	47.8	80	26	20	2	481	0	.81	.43	10
Fort Cobb	47.3	79	17	19	4	496	0	.88	.55	10
Grandfield	49.8	87	26	21	4	427	0	.58	.27	10
Hinton	46.1	78	17	18	4	530	0	.73	.47	9
Hobart	47.7	82	26	17	2	485	0	.31	.30	9
Hollis	48.3	85	26	18	2	469	0	.23	.23	9
Mangum	47.1	84	26	15	4	502	0	.38	.38	9
Medicine Park	49.5	82	26	22	4	436	3	.53	.34	9
Tipton	49.0	87	26	18	2	448	0	.21	.20	9
Walters	50.1	85	26	21	4	421	3	1.13	.67	10
SOUTH CENTRAL										
Ada	49.2	86	26	17	4	449	6	1.55	1.06	10
Ardmore	51.6	89	26	21	4	389	12	1.40	.48	14
Burneyville	51.8	90	26	19	22	385	15	1.56	.79	10
Byars	49.5	84	26	19	4	439	5	1.25	.72	10
Centrahoma	49.0	86	26	15	4	454	6	1.39	.87	10
Durant	51.6	86	26	19	4	387	10	.89	.54	10
Fittstown	49.0	86	26	20	4	455	7	1.18	.66	10
Ketchum Ranch	51.0	85	26	22	4	401	9	1.18	.57	9
Lane	49.9	83	26	19	4	430	7	1.51	1.07	10
Madill	51.9	91	26	19	22	381	14	1.30	.87	10
Newport	51.6	89	26	22	4	387	12	1.45	.53	14
Pauls Valley	50.1	84	26	21	4	425	8	.77	.27	10
Ringling	51.2	87	26	21	4	395	9	1.25	.54	10
Sulphur	49.5	87	26	16	22	442	8	1.45	.87	10
Tishomingo	49.7	90	26	19	4	440	10	1.37	.76	10
Vanoss	49.3	86	26	16	4	448	7	2.01	1.47	10
Waurika	51.5	86	26	21	4	386	8	.77	.38	9
SOUTHEAST										
Antlers	49.8	83	26	16	4	433	8	1.87	1.28	10
Broken Bow	47.9	76	26	18	4	480	2	1.25	.36	9
Clayton	48.9	80	26	16	4	454	2	1.85	1.32	10
Cloudy	48.5	79	26	18	4	464	3	1.73	.86	10
Hugo	51.2	80	26	22	4	392	6	1.89	1.16	10
Idabel	50.3	77	26	18	4	416	6	1.40	.40	10
Mt Herman	48.5	75	26	18	4	464	1	1.97	.87	10
Talihina	48.6	76	26	17	4	459	0	1.74	.77	10
Wilburton	48.0	80	26	13	4	478	3	2.20	1.58	10
Wister	46.2	76	26	14	4	526	0	1.90	1.27	10

February 2009 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Feb-08
Panhandle	0.28	-0.36	35th Driest	2.94 (1911)	0.00 (1896)	0.68
North Central	0.61	-0.61	42nd Driest	4.10 (1911)	0.00 (1904)	2.69
Northeast	2.25	0.27	35th Wettest	5.80 (1985)	0.10 (1963)	3.77
West Central	0.35	-0.79	30th Driest	3.64 (1997)	0.00 (1904)	2.36
Central	1.30	-0.56	58th Driest	5.08 (1938)	0.00 (1904)	2.73
East Central	1.93	-0.50	57th Driest	9.15 (1938)	0.00 (1895)	3.89
Southwest	0.55	-0.78	39th Driest	3.89 (1997)	0.00 (1902)	1.54
South Central	1.31	-0.90	42nd Driest	7.66 (1938)	0.02 (1902)	2.22
Southeast	1.78	-1.36	33rd Driest	10.12 (1945)	0.36 (1895)	4.54
Statewide	1.17	-0.59	46th Driest	4.66 (1938)	0.18 (1996)	2.69

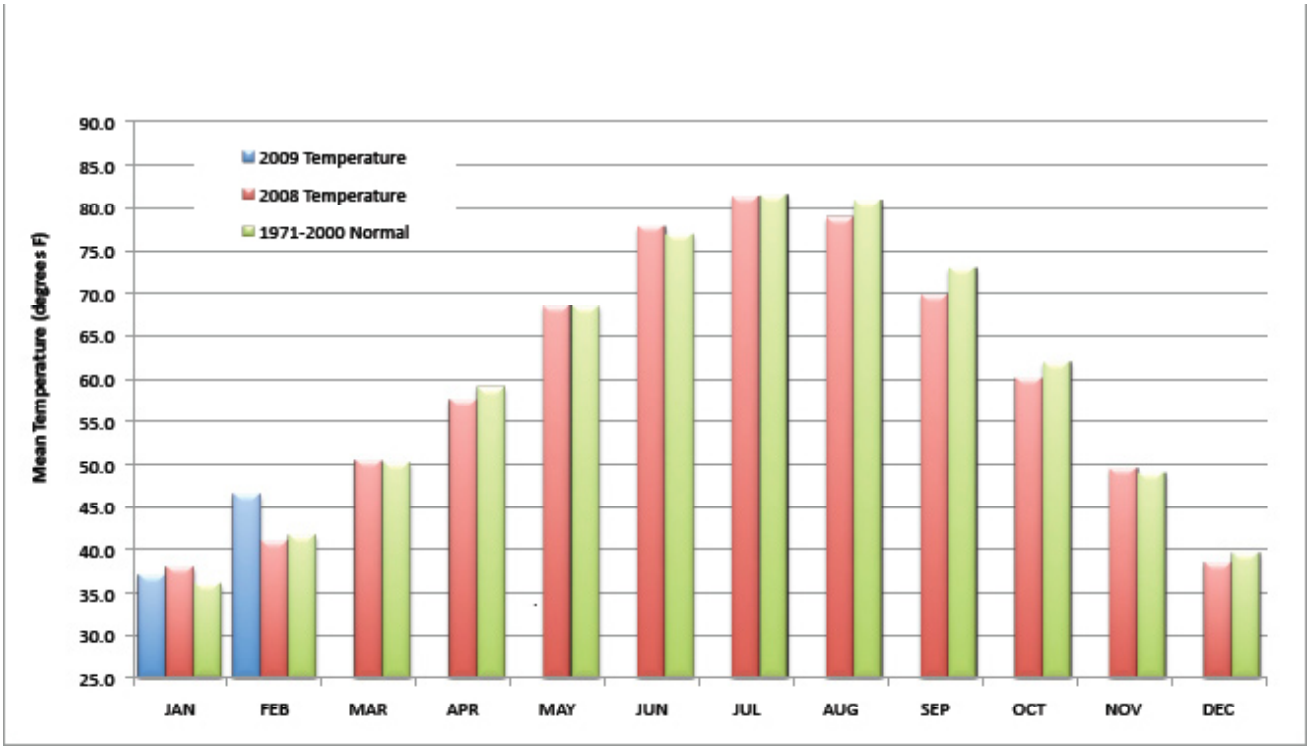
2008 and 2009 Statewide Precipitation Monthly Totals vs. Normal



February 2009 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Feb-08 (F)
Panhandle	42.2	3.9	16th Warmest	47.5 (1954)	23.1 (1899)	37.1
North Central	44.2	4.9	14th Warmest	49.6 (1954)	22.4 (1899)	37.0
Northeast	44.6	4.2	16th Warmest	49.8 (1976)	25.6 (1899)	38.9
West Central	45.8	5.2	12th Warmest	51.0 (1954)	23.8 (1905)	40.2
Central	47.3	5.4	9th Warmest	51.6 (1976)	26.2 (1899)	40.8
East Central	46.8	4.0	16th Warmest	52.1 (1976)	28.7 (1899)	42.8
Southwest	48.3	5.2	9th Warmest	52.5 (1954)	26.8 (1905)	43.6
South Central	50.4	5.6	7th Warmest	53.6 (1976)	30.0 (1905)	44.6
Southeast	48.8	4.1	20th Warmest	52.6 (1976)	31.4 (1899)	44.4
Statewide	46.5	4.8	10th Warmest	50.7 (1954)	26.6 (1899)	40.9

2008 and 2009 Statewide Temperature Monthly Averages vs. Normal



Mesonet Extremes for February 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	84	6th	Beaver	10	2nd	Beaver	0.69	Kenton	0.69	8th	Kenton
North Central	80	17th	Fairview	11	4th	Blackwell	1.59	Blackwell	1.22	10th	Blackwell
Northeast	82	26th	Bixby	9	4th	Nowata	4.01	Pryor	2.81	10th	Inola
West Central	80	26th	Retrop	14	4th	Butler	0.50	Butler	0.37	9th	Watonga
Central	83	26th	Bowlegs	11	4th	Oilton	2.48	Guthrie	2.09	10th	Guthrie
East Central	84	26th	Calvin	10	4th	Cookson	2.58	Calvin	1.77	10th	Calvin
Southwest	87	26th	Grandfield	15	4th	Mangum	1.13	Walters	0.67	10th	Walters
South Central	91	26th	Madill	15	4th	Centrahoma	2.01	Vanoss	1.47	10th	Vanoss
Southeast	83	26th	Antlers	13	4th	Wilburton	2.20	Wilburton	1.58	10th	Wilburton
Statewide	91	26th	Madill	9	4th	Nowata	4.01	Pryor	2.81	10th	Inola

March Climatological Outlook

The retreat of winter and the onset of spring progress across Oklahoma during March, but the change of season is not smooth. Despite the generally moderating climate, winter intrudes from time-to-time, especially in the first half of the month, bringing with it some frigid weather and, occasionally, some frighteningly heavy snowstorms. By the end of the month, spring is typically in full sway, including occasional full participation in the severe thunderstorm season.

As befits a transitional month, March is Oklahoma's 5th coolest month. The statewide-average normal monthly temperature of 51.0 degrees is compiled from a collection of station-specific normals that range from 45.1 degrees in the panhandle at Goodwell to 55.7 degrees at Ardmore in south central Oklahoma. Monthly averages of statewide temperatures have included a maximum of 57.9 degrees both 1907 and 1910 and a minimum of 37.6 degrees in 1915. Normal daily maximum temperatures are bounded by southerly Waurika's 68.8 degrees and northerly Arnett's 59.3. Extremes of normal daily minimum temperatures are found in the panhandle at Boise City, 29.8 degrees, and in the south at Ardmore, 43.8 degrees.

Precipitation
Mean: 3.06 inches
Wettest March: 1973, 7.46 inches
Driest March: 1971, 0.38 inches
Wettest location: Smithville, 5.52 inches
Driest location: Regnier, 1.05 inches
Most recorded: 13.37 inches, Kansas, 1973

Normal statewide-averaged precipitation in March is 3.06 inches, ranking March as the state's 6th wettest month. The extreme monthly statewide averages of March precipitation are 7.46 inches in 1973 and 0.38 inches in 1971. Southeastern Oklahoma's Smithville carries the title of wettest station in March with a normal precipitation total of 5.52 inches. The least normal March precipitation in the state, 1.05 inches, belongs to Regnier in the northwestern panhandle. The northeastern Oklahoma town of Kansas holds the apparent record for the wettest March in the state with a reported 13.37 inches of rain in 1973.

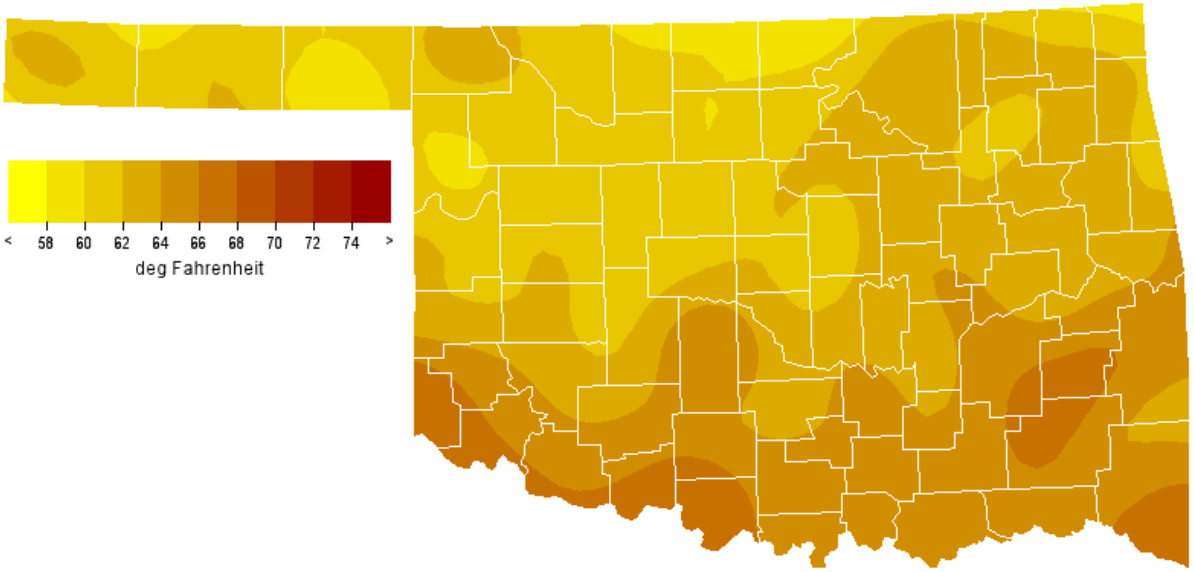
Snow doesn't come every March, but when it does it comes in bunches. Boise City averages 6.6 inches of snow during the month, the greatest average snowfall among the state's reporting locations. Stations in the state's southern half generally average less than half-an-inch of snow during March. Snowstorms have dropped as much as 20 inches of snow on northern parts of Oklahoma several times. In 1988, Cherokee (29.5 inches), Laverne (27.5 inches), and Waynoka (25 inches) all reported monthly totals of over 2 feet of snow. Gate recorded 27 inches in March 1969 and Vinita noted 24 inches in March 1970. Both the 1988 and 1970 totals are additionally notable as most of the snow was reported on St. Patrick's Day. Beaver reported substantial snow in March 1912 to complete the state's seasonal snowfall record (winter of 1911/12) of 87.3 inches. A late-season snowstorm struck the panhandle in 1926, as Boise City reported 16 inches of snow on the 30th.

Temperature
Mean: 51.0 degrees
Warmest Location: 55.7 degrees, Ardmore
Coolest Location: 45.1 degrees, Goodwell
Warmest March: 1907, 59.6 degrees
Coolest March: 1915, 39.2 degrees
Hottest recorded: 104 degrees, Frederick, March 27, 1971
Coldest recorded: -18 degrees, Hooker, March 7, 1920
Kenton, March 1, 1922 & March 6, 1948

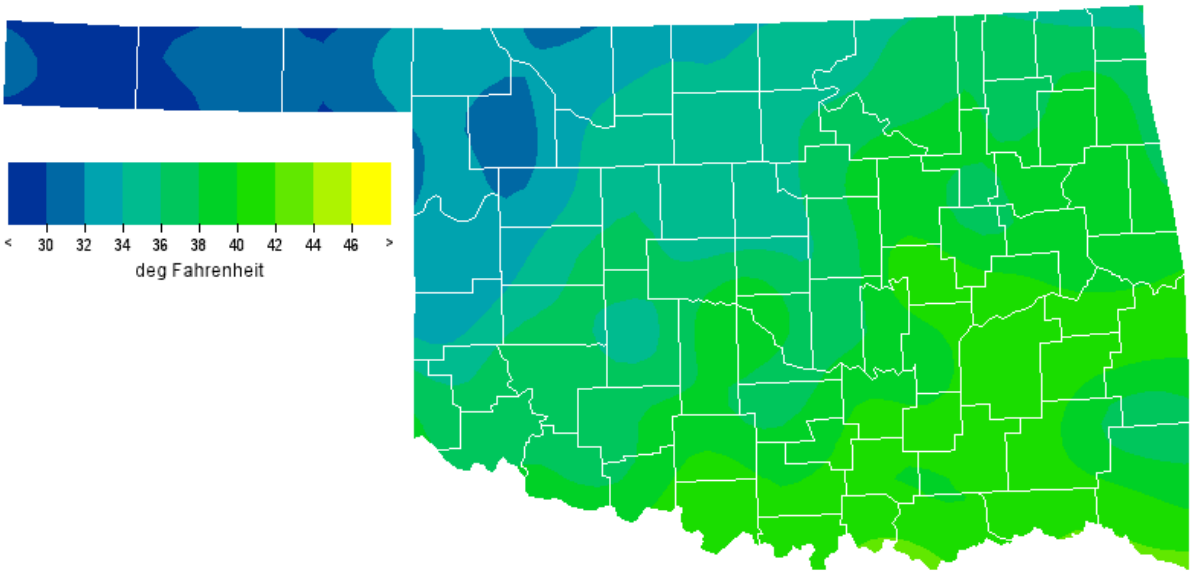
The state has averaged 3.7 tornadoes each March since 1950. The actual number has ranged from none (16 times in 55 years, including 2002) to 17 in 1991. Two deadly March tornadoes, each killing 10, were at Gowen on March 13, 1922 and Lenna on March 25, 1948. Two other notable tornadoes struck the Oklahoma City area, including Will Rogers Airport and Tinker Air Force Base, on March 20th and 25th in 1948. The first tornado caused over $10 million in property damage, much of it to military aircraft. Damage from the second was $6 million. On the 25th, Air Force meteorologists recognizing the similarity of conditions to those of the 20th, issued what is now accepted to be the first successful and scientific forecast of a tornado.

Tornadoes
Average March Tornadoes: 4
Most: 17 (1991)

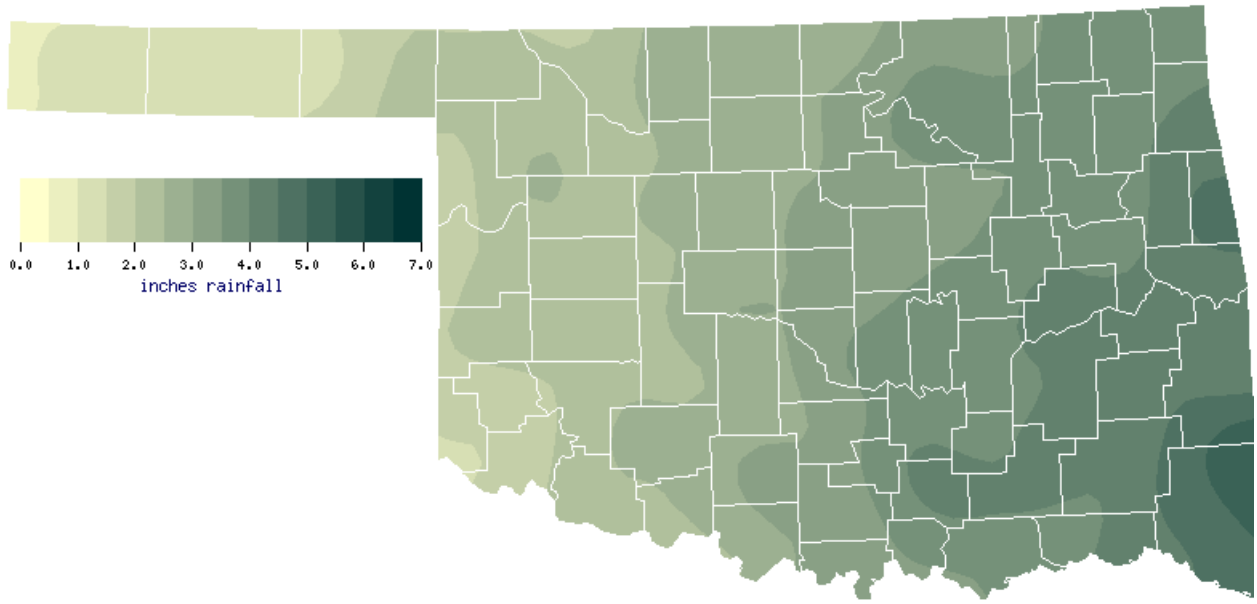
March Normal Daily Maximum Temperature (1971-2000)



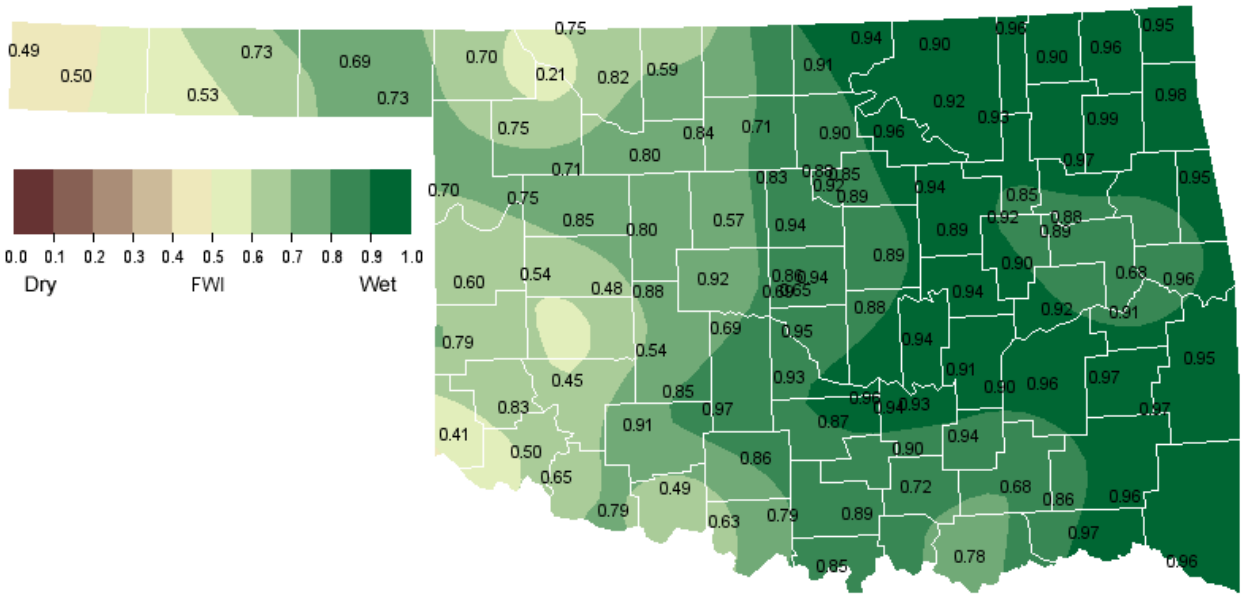
March Normal Daily Minimum Temperature (1971-2000)



March Normal Precipitation (1971-2000)



March 1, 2009 Soil Moisture Conditions at 25cm



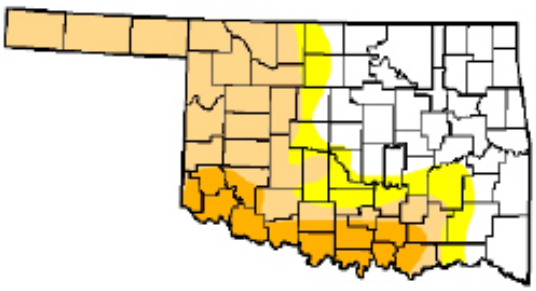
March 2009 Drought Indices

U.S. Drought Monitor
Oklahoma

February 24, 2009
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	40.1	59.9	47.1	12.2	0.0	0.0
Last Week (02/17/2009 map)	40.1	59.9	37.2	12.2	0.0	0.0
3 Months Ago (12/02/2008 map)	55.2	44.8	8.6	0.0	0.0	0.0
Start of Calendar Year (01/06/2009 map)	41.6	58.4	12.0	3.4	0.0	0.0
Start of Water Year (10/07/2008 map)	84.4	15.6	5.0	3.5	0.0	0.0
One Year Ago (02/26/2008 map)	72.1	27.9	10.6	0.0	0.0	0.0



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

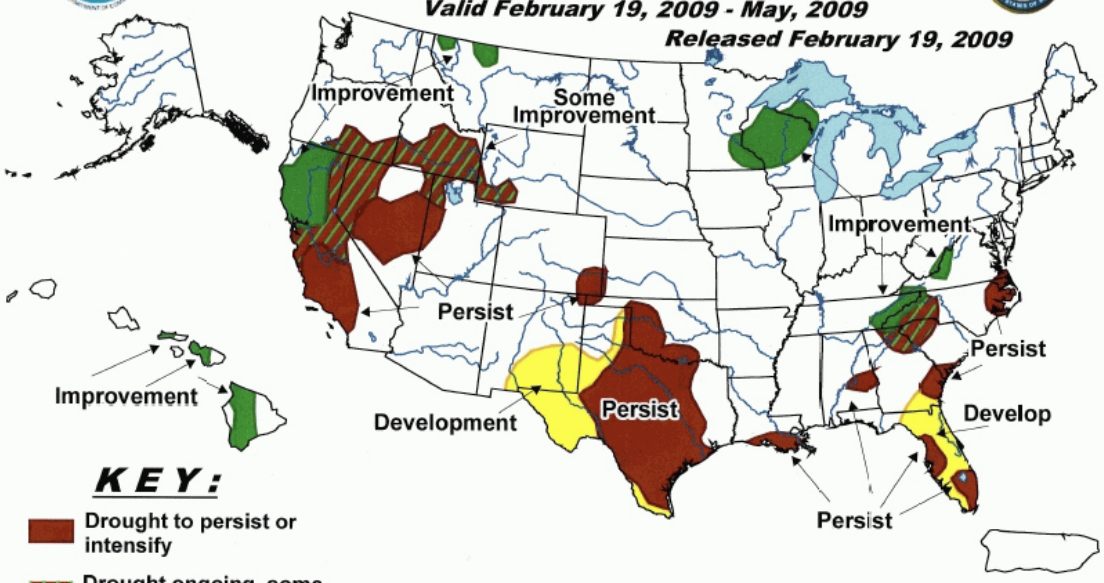
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements

http://drought.unl.edu/dm

USDA

Released Thursday, February 26, 2009
Author: Rich Tinker, CPC/NOAA

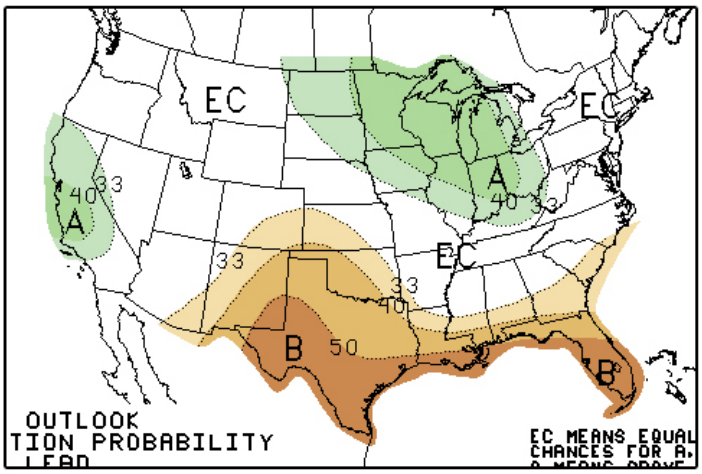
U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period
Valid February 19, 2009 - May, 2009
Released February 19, 2009



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.

March 2009 U.S. Precipitation Forecast



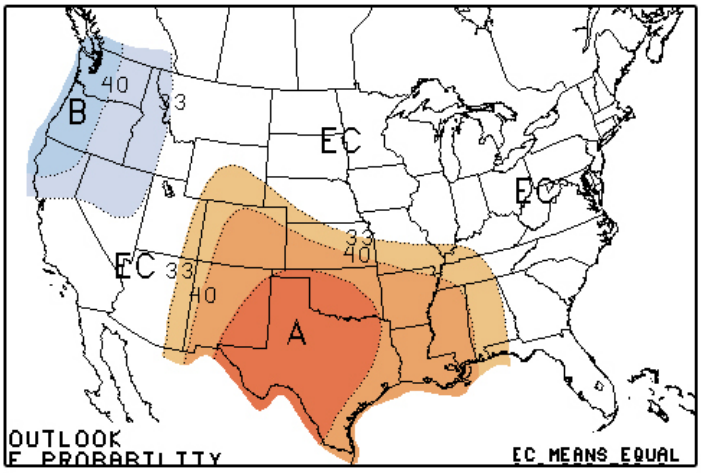
Percent Likelihood of Above or Below Average Precipitation*

5% - 10%
0% - 5%
A = Above

0% - 5%
5% - 10%
B = Below

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

March 2009 U.S. Temperature Forecast



Percent Likelihood of Above and Below Average Temperatures*

10% - 20%
5% - 10%
0% - 5%
A = Above

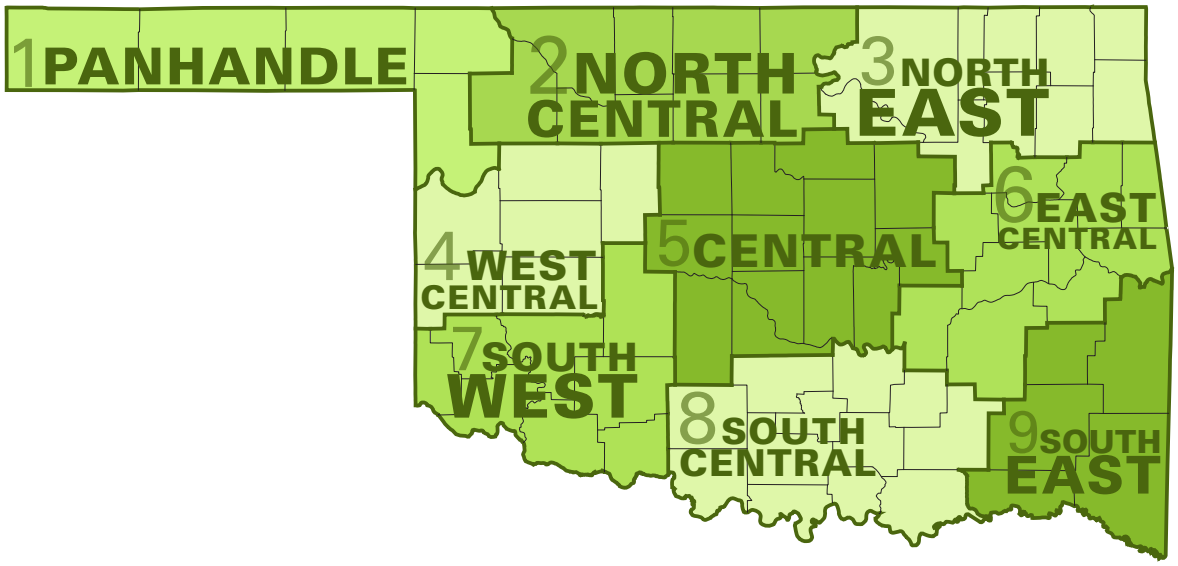
0% - 5%
5% - 10%
B = Below

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

March Climate Normals

Climate Division	Max. Temperature (°F)	Min. Temperature (°F)	Avg. Temperature (°F)	Precipitation (inches)
1	61.5	31.6	46.5	1.58
2	60.4	33.7	47.1	2.67
3	62.5	37.9	50.2	3.61
4	61.7	34.7	48.2	2.29
5	62.6	37.6	50.2	3.15
6	63.3	39.6	51.5	3.99
7	64.5	37.0	50.8	2.29
8	64.9	40.0	52.5	3.50
9	65.5	39.9	52.7	4.45
Statewide	62.9	37.0	50.0	3.16

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/
E-mail (ocs@ou.edu) or telephone (405/325-2541)

OKLAHOMA CLIMATOLOGICAL SURVEY

Oklahoma Climatological Survey is the State Climate Office for Oklahoma

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