Oklahoma Monthly Climate Summary

NOVEMBER 2010

OKLAHOMA CLIMATOLOGICAL SURVEY

The mild and dry weather Oklahoma experienced through the first two months of fall continued into November, thanks in large part to La Nina's influence. The climate phenomenon, signaled by cooler-than-normal waters in the equatorial pacific and global disruptions of weather patterns, brings an increased chance for mild and dry weather throughout the southern one-third of the United States, included Oklahoma. The effects of La Nina are reflected in the state's temperature and rainfall statistics for the three months of climatological fall, September-November. Despite November's mild and dry weather, the extremes Oklahoma is well known for still occurred. High temperatures rose into the 70s and 80s late in the month with Waurika recording 85 degrees on the 24th ahead of a powerful cold front. The following morning's low temperature at Waurika fell to a frigid 27 degrees. Boise City and Goodwell bottomed out at a bone-chilling 8 degrees on that same day. Miami recorded the most precipitation during the month with 4.31 inches while Boise City had less than a gulp of water at 0.01 inches.

TEMPERATURE

According to preliminary data from the Oklahoma Mesonet, the statewide average temperature during November finished 1.5 degrees above normal to rank as the 47th warmest since records began in 1895. Average high temperatures across the state were 2.8 degrees above normal while average lows were a bit tamer at 0.5 degrees above normal. Parts of central and southern Oklahoma were quite warm at more than 4 degrees above normal. Oklahoma City was 2.2 degrees above normal for the month with an average temperature of 51.2 degrees. The September-November statewide average temperature finished at 62.1 degrees, 1.5 degrees above normal, to rank as the 35th warmest fall season on record.

November 2010 Statewide Extremes

Description	Extreme	Station	Day
High Temperature	85°F	Waurika	24
Low Temperature	8°F	Boise City and Goodwell, Kenton	25, 26
High Precipitation	4.31 in.	Miami	--
Low Precipitation	0.01 in.	Boise City	--

PRECIPITATION

The Mesonet's precipitation gauges recorded an average of 1.91 inches across the state, 0.91 inches below normal. While that is certainly dry compared to the last 30 Novembers, it is only the 63rd driest since 1895. The northwestern quarter of the state had a good soaking of 2-3 inches during the month, but the remainder of the state remained significantly dry with 20-60 percent of normal rainfall. The statewide average rainfall total for fall was 7.64 inches, 2.37 inches below normal to rank as the 51st driest.

NOVEMBER DAILY HIGHLIGHTS

NOVEMBER 1-3: A cold front had already entered the state by the first of the month and was travelling through during the day. It signaled a cool-down from warmer weather to end October and dropped temperatures to near normal. Lows were in the 30s and 40s and highs rebounded into the 60s. A surface low-pressure system spinning in northeastern Texas brought rain to the southeastern corner of the state over the next two days. About 1-2 inches of rain fell in the southeast with a few tenths in east central Oklahoma. High temperatures rose into the 70s by the third. Northerly winds continued to gust to 40 mph during this entire three-day period.

November 2010 Statewide Statistics

Temperature

	Average	Depart.	Rank (1895-2010)
Month (November)	49.8°F	1.5°F	47th Warmest
Season-to-Date (Sep-Nov)	62.1°F	1.4°F	35th Warmest
Year-to-Date (Jan-Nov)	62.0°F	0.4°F	39th Warmest

Precipitation

	Average	Depart.	Rank (1895-2010)
Month (November)	1.91 in.	-0.91 in.	55th Wettest
Season-to-Date (Sep-Nov)	7.64 in.	-2.37 in.	51st Driest
Year-to-Date (Jan-Nov)	31.16 in.	-3.51 in.	51st Driest

Depart. = departure from 30-year normal

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NOVEMBER 4-9: A trough of low pressure in the lee of the Rockies and a ridge of high pressure over Oklahoma produced strong southerly winds for this six-day period. That helped keep both low- and high-temperatures above normal. Winds gusted from the south at over 30 mph almost every day and lows were in the 40s and 50s, 10-15 degrees above normal. High temperatures rose into the 60s and 70s with even a few 80s thrown in. No rain fell in the state during this period.

NOVEMBER 10-12: A cold front moved into the state on the morning of the 10th before stalling in central Oklahoma. Temperatures fell into the 30s and 40s behind the front but remained in the 60s ahead of the front. Highs were not much different across the boundary with 60s to the north and 70s to the south. The front moved back to the north as a warm front on the 11th, setting off a round of showers and storms. More than an inch of rain fell along the front. Another cold front entered the state on the 12th kicking off more-widespread showers and storms. A line of storms traveled with the front to the southeast. Nearly 3 inches fell in northwestern Oklahoma with lesser amounts to the southeast, where totals for the three-day period were less than an inch. High temperatures occurred early in the day on the 12th before the front's passage dropped temperatures. Highs in the 60s and 70s were quickly replaced with 40s and 50s, accompanied by northerly winds gusting to 35 mph.

NOVEMBER 13-16: High pressure filtered in following the cold front at the end of the previous period. That brought lows back below freezing for a bit and afternoon highs rose into the 50s and 60s. An approaching upper-air disturbance produced a few light showers early on the 15th before moderate rains fell at a few places during the afternoon. The Mesonet station at Fort Cobb received over an inch of rain. Light rain and drizzle continued overnight into the 16th before skies began to clear. The sunny skies on the 16th meant seasonal temperatures in the 50s and 60s.

NOVEMBER 17-21: A strong cold front moved into the northwest early on the 17th and cleared the state later that day. Temperatures remained in the 40s and 50s behind the front but reached the 60s before dropping. A few light showers accompanied the front but amounts were light. Following that front, temperatures began to warm as southerly winds returned in response to a low-pressure system in the Texas and Oklahoma panhandles. Temperatures only reached the 50s on the 18th but managed to warm into the 60s and 70s on the 19th and 20th. A warm front brought temperatures into the 80s on the 21st with spring-like moisture to go along with it. A cold front approached from the northwest later that day.

NOVEMBER 22-25: The cold front in the northwest stalled on the 22nd, bringing unseasonably mild weather to the southeast of the boundary. High temperatures were in the 50s and 60s behind the front but the 70s and 80s elsewhere. A few showers developed with the moist, southerly airflow with over an inch falling at McAlester. The cold front made it through the state on the 23rd and dropped temperatures into the 20s and 30s overnight, rising back to the 60s and 70s for most of the state later that afternoon. More showers formed in eastern Oklahoma, but amounts were light for the most part. Much more moisture flowed into the state on strong southerly winds on the 24th. Oklahoma City reached 79 degrees ahead of a strong cold front that had entered the northwest. That high temperature broke Oklahoma City's record for the day. Waurika reached 85 degrees, the highest in the state during the month. As the front traveled southeast, it set off showers and storms ahead of its path. Some of those storms reached severe levels. Temperatures quickly dropped into the 30s following the front's passage. The front blasted through the state, providing a very chilly 25th. Highs only reached into the 30s and 40s behind the front but managed to rise into the 70s ahead of the front. Some freezing rain developed later that night, coating southern and southeastern Oklahoma in a thin glaze of ice.

NOVEMBER 26-30: Thanksgiving was quite chilly after the strong cold front. Highs rose into the 30s and 40s, but strong northerly winds made it feel much colder. The surface high pressure that slid in after the front brought lows in the 10s and 20s on the 26th and highs in the 50s. A significant warm-up occurred on the 27th with the return of southerly winds, thanks to a developing surface low east of the Colorado Rockies. Highs bounced back into the 60s through the 28th. Another storm system dragged a cold front through the state on the 29th, cooling the weather down once again and producing more rainfall. Over a half-inch fell in southeastern Oklahoma. The month's final day was cool in the 40s.

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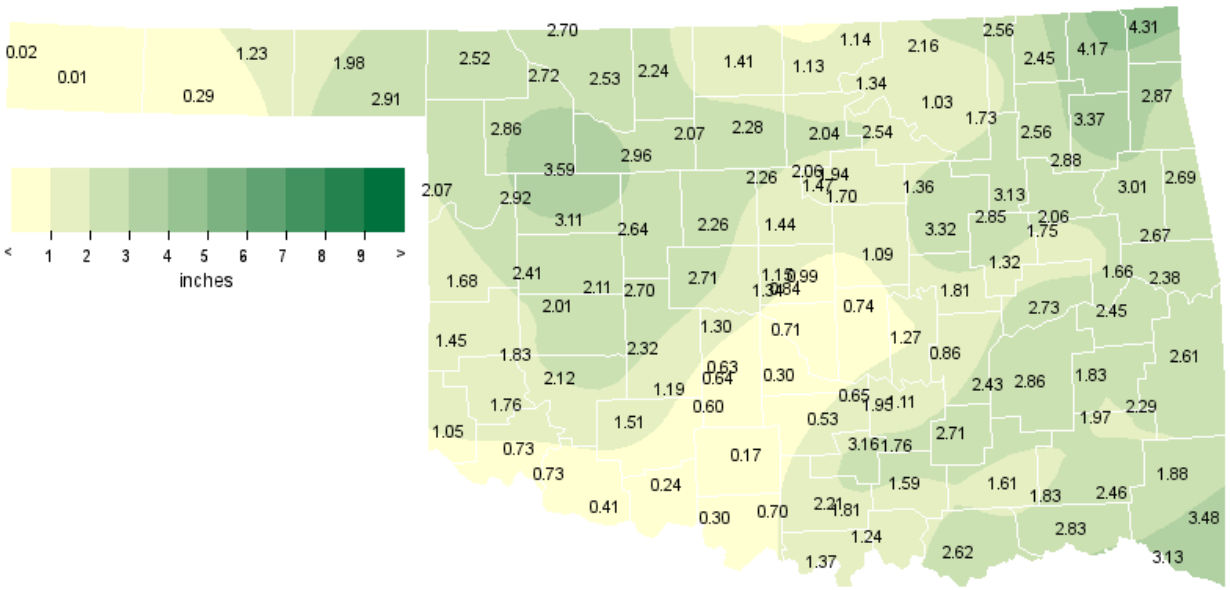
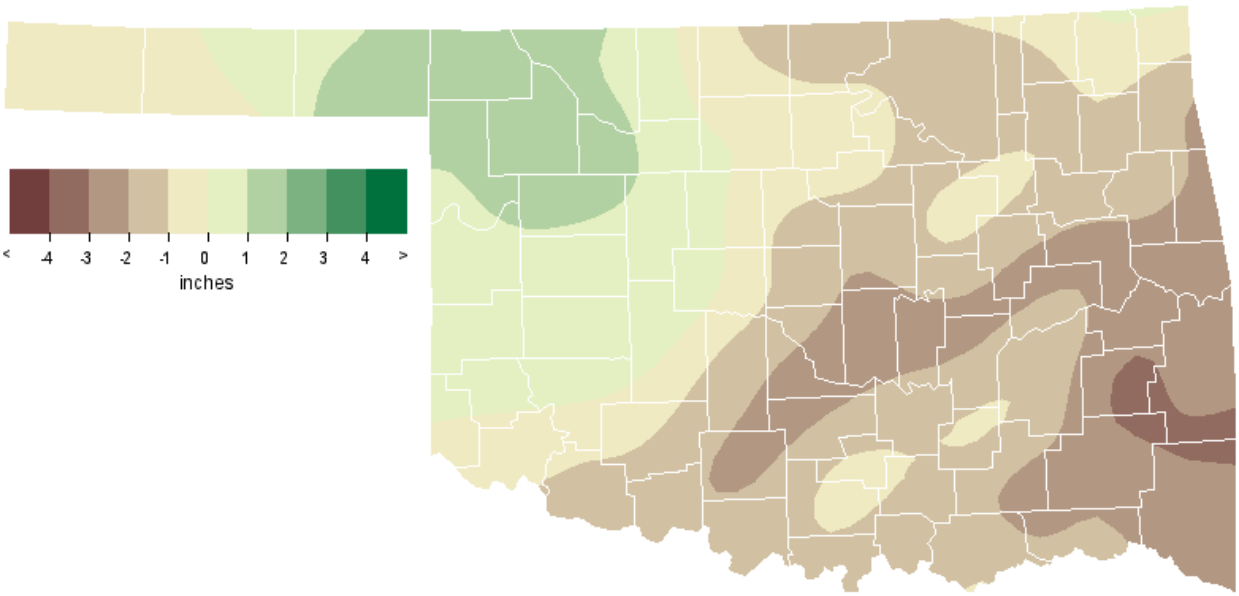
NOVEMBER 2010 OBSERVED PRECIPITATION



NOVEMBER 2010 DEPARTURE FROM NORMAL PRECIPITATION



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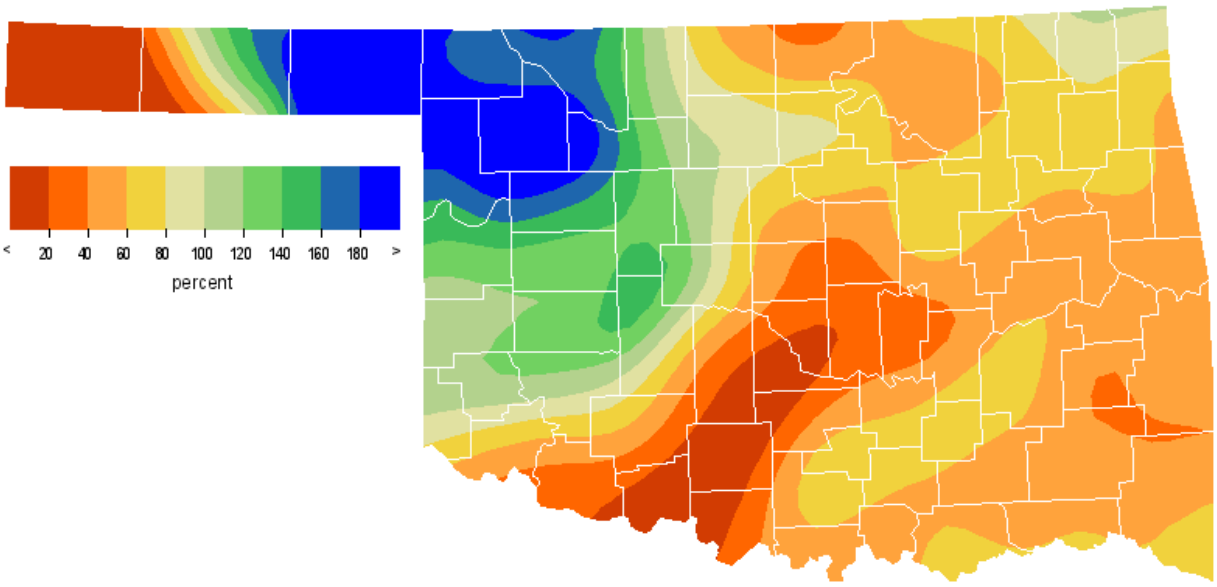
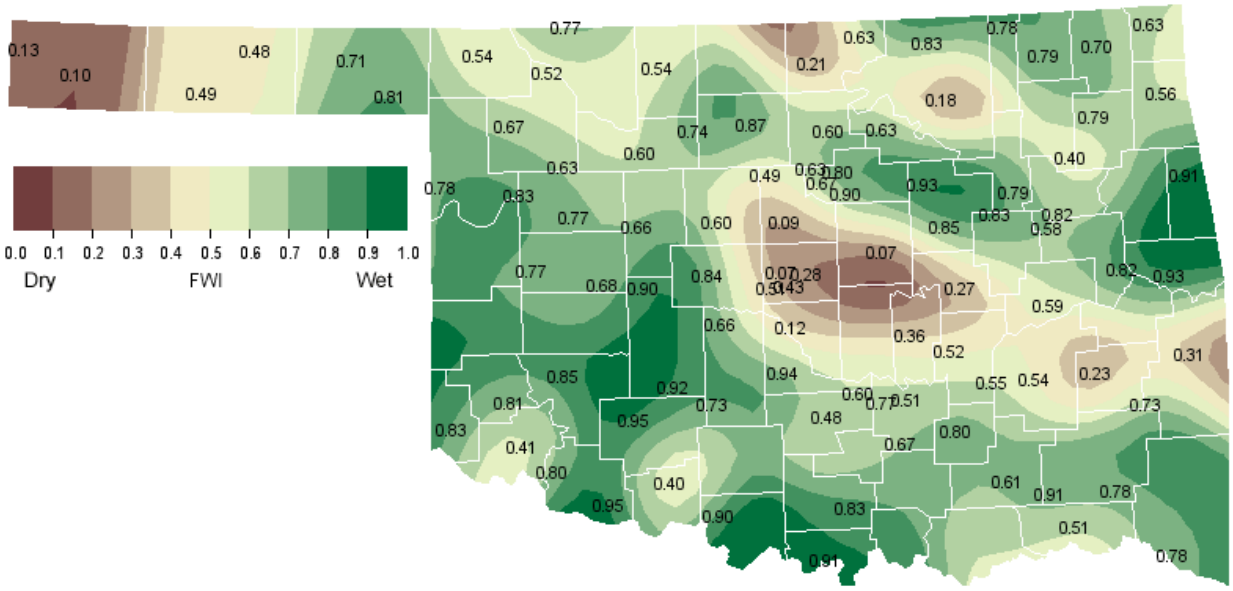
NOVEMBER 2010 PERCENT OF NORMAL PRECIPITATION



NOVEMBER 2010 AVERAGE SOIL MOISTURE AT 25CM



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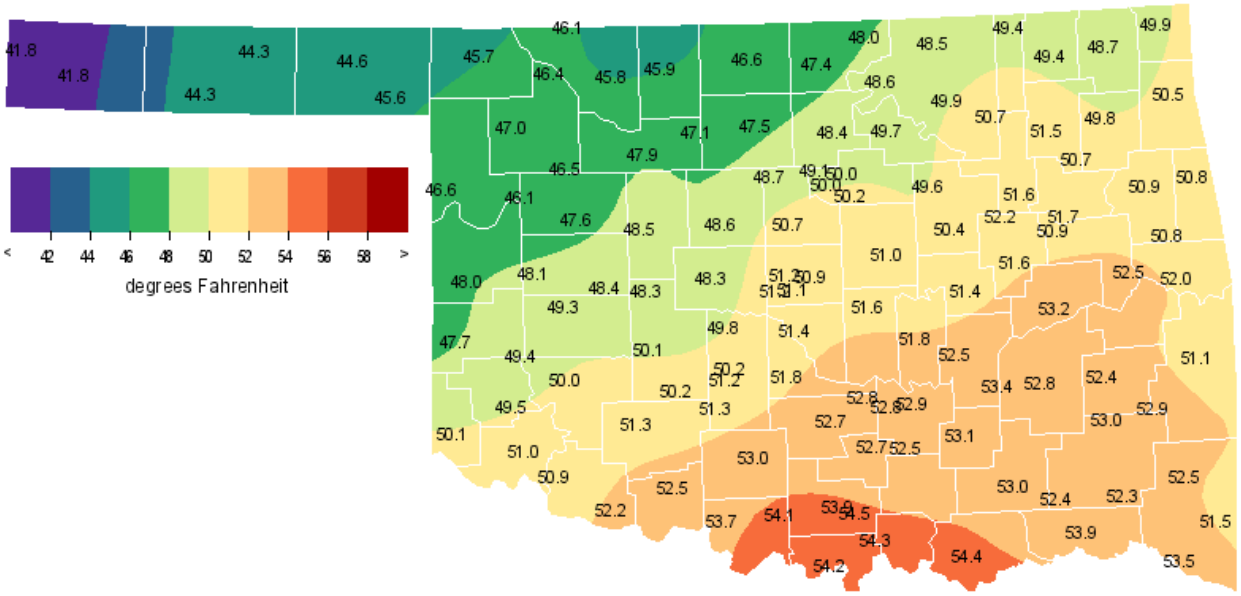
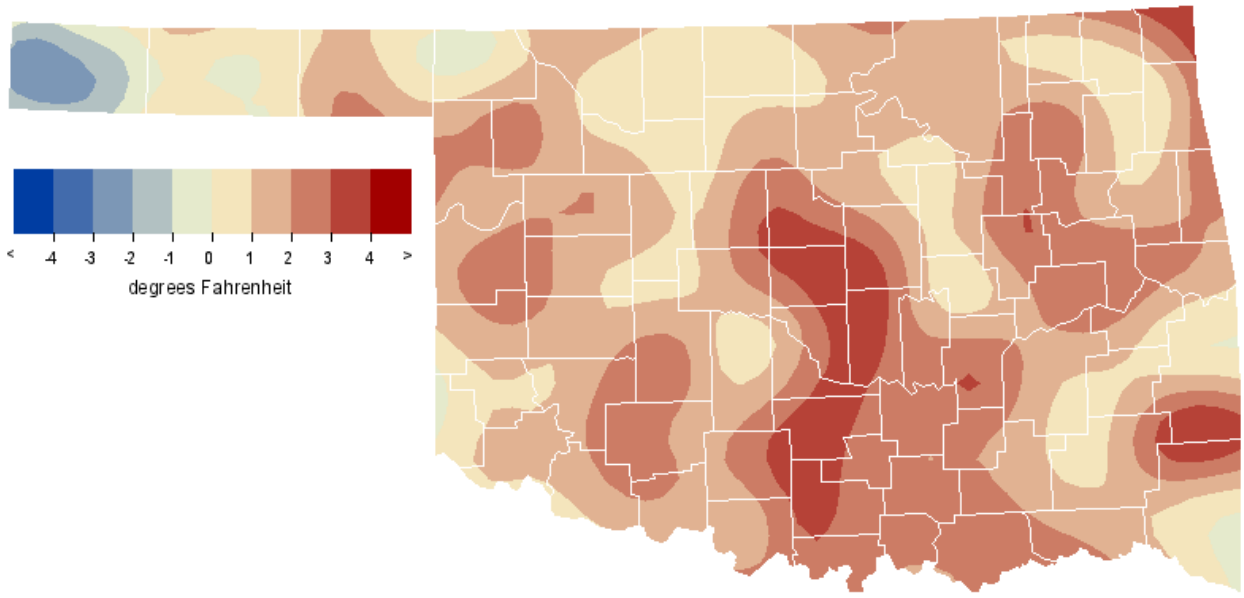
NOVEMBER 2010 AVERAGE TEMPERATURE



NOVEMBER 2010 DEPARTURE FROM NORMAL TEMPERATURE



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MESONET MONTHLY SUMMARY FOR NOVEMBER 2010

NAME	MEAN TEMP	HIGH TEMP	HIGH DAY	LOW TEMP	LOW DAY	HDD	CDD	TOT PPT	HIGH 24-HR	HIGH DAY
PANHANDLE										
Arnett	46.6	81	8	12	26	552	0	2.07	1.90	12
Beaver	44.6	83	8	11	26	613	1	1.98	1.20	12
Boise City	41.9	79	8	8	25	693	0	.01	.01	17
Buffalo	45.7	84	8	16	26	581	1	2.52	1.81	12
Goodwell	44.2	81	8	8	25	623	0	.29	.23	12
Hooker	44.3	82	7	10	26	622	0	1.23	.89	11
Kenton	41.8	80	8	8	26	695	0	.02	.01	17
Slapout	45.6	84	8	15	26	583	0	2.91	1.62	12
NORTH CENTRAL										
Alva	45.8	79	8	18	26	576	0	2.53	2.23	12
Blackwell	47.3	76	8	16	26	530	0	1.13	.54	12
Breckinridge	47.5	74	3	20	26	526	0	2.28	.98	12
Cherokee	45.9	76	8	18	26	573	0	2.24	1.84	12
Fairview	47.9	75	8	26	27	514	0	2.96	2.20	12
Freedom	46.3	82	8	18	26	560	0	2.72	2.49	12
Lahoma	47.1	74	3	20	26	537	0	2.07	1.13	12
May Ranch	46.2	80	8	22	25	565	0	2.70	2.40	12
Medford	46.6	74	8	18	26	551	0	1.41	.90	12
Newkirk	48.0	76	8	18	26	510	0	1.14	.55	12
Red Rock	48.4	77	8	19	26	496	0	2.04	.82	11
Seiling	46.5	76	8	17	26	554	0	3.59	2.72	12
Woodward	47.0	82	8	20	26	540	0	2.86	2.43	12
NORTHEAST										
Bixby	51.6	80	22	21	26	402	0	3.13	1.81	24
Burbank	48.6	77	8	15	26	492	0	1.34	.69	11
Claremore	51.5	80	22	24	26	405	0	2.56	1.48	12
Copan	49.4	77	22	19	26	468	1	2.56	1.46	12
Foraker	48.5	78	8	20	26	496	0	2.16	.74	12
Inola	50.7	80	22	20	26	430	1	2.88	1.70	24
Jay	50.4	75	22	19	26	437	1	2.87	1.64	24
Miami	49.9	76	22	21	26	454	0	4.31	2.72	24
Nowata	49.4	78	22	16	26	470	1	2.45	1.57	12
Pawnee	49.7	78	24	18	26	460	1	2.54	1.10	11
Porter	51.6	80	22	21	26	403	1	2.06	1.01	12
Pryor	49.8	77	24	18	26	457	0	3.37	1.21	12
Skiatook	50.7	79	24	22	26	428	0	1.73	1.17	12
Vinita	48.7	77	22	19	26	489	0	4.17	2.44	24
Wynona	49.8	80	24	18	26	457	1	1.03	.38	12
WEST CENTRAL										
Bessie	49.3	75	22	23	26	471	0	2.01	1.74	12
Butler	48.1	75	21	15	26	508	0	2.41	2.17	12
Camargo	46.2	76	8	14	26	565	0	2.92	2.46	12
Cheyenne	47.9	74	21	23	26	512	0	1.68	1.48	12
Erick	47.7	76	21	14	26	521	0	1.45	1.38	12
Putnam	47.6	73	22	18	26	523	0	3.11	2.53	12
Retrop	49.4	78	24	22	26	467	0	1.83	1.68	12
Watonga	48.5	73	3	22	26	496	0	2.64	1.72	12
Weatherford	48.4	73	22	20	26	498	0	2.11	1.73	12
CENTRAL										
Acme	51.3	80	24	16	26	413	3	.60	.39	12
Bowlegs	51.8	80	22	20	26	397	0	1.27	.92	12
Bristow	50.4	80	22	18	26	438	0	3.32	1.99	24
Lake Carl Blac	49.1	77	21	17	26	481	4	2.06	.81	12
Chandler	50.9	80	24	21	26	422	1	1.09	.68	12
Chickasha	50.1	78	24	15	26	450	4	.63	.35	12
El Reno	48.3	77	24	17	26	501	1	2.71	1.13	12
Guthrie	50.7	77	24	20	26	432	4	1.44	.80	12
Kingfisher	48.6	75	8	18	26	493	1	2.26	1.18	12
Marena	50.0	79	24	21	26	454	2	1.47	.87	12
Minco	49.7	78	24	23	26	459	1	1.30	.98	12
Marshall	48.7	75	8	17	26	492	2	2.26	1.45	12
Ninnekah	51.2	81	24	17	26	418	4	.64	.38	12
Norman	51.4	80	24	22	26	412	3	.71	.45	12
Oilton	49.6	80	24	15	26	464	1	1.36	.63	12
Oklahoma City	51.0	79	24	23	26	421	3	.84	.56	12
Oklahoma City	51.2	78	24	26	26	416	3	1.15	.72	12
Oklahoma City	51.2	78	24	25	26	418	2	1.34	.80	12
Okemah	51.4	80	22	17	26	409	2	1.81	1.24	12
Perkins	50.2	77	24	21	26	444	1	1.70	.90	12
Shawnee	51.6	80	24	23	26	402	1	.74	.32	12
Spencer	50.8	78	24	22	26	427	2	.99	.71	12
Stillwater	50.0	78	24	20	26	453	2	1.94	1.20	12
Washington	51.8	80	24	21	26	400	4	.30	.16	12
EAST CENTRAL										
Cookson	50.9	74	22	17	26	422	0	2.67	1.18	25
Eufaula	53.2	79	22	22	26	359	5	2.73	1.59	25
Haskell	50.9	80	22	20	26	423	0	1.75	.93	12
Hectorville	52.2	80	22	21	26	386	1	2.85	1.53	12
Holdenville	52.4	81	22	21	26	381	4	.86	.43	12
McAlester	52.9	80	22	18	26	373	9	2.86	1.15	25
Okmulgee	51.6	81	22	18	26	407	5	1.32	.57	12
Sallisaw	52.0	78	22	21	26	392	2	2.38	1.56	25
Stigler	51.5	77	22	21	26	****	****	2.45	1.37	25
Stuart	53.3	81	22	22	26	359	8	2.43	.95	12
Tahlequah	50.9	76	22	17	26	422	1	3.01	1.26	25
Webbers Falls	52.5	78	22	24	26	377	1	1.66	1.07	25
Westville	50.8	73	11	18	26	427	0	2.69	1.55	25
SOUTHWEST										
Altus	51.0	80	24	17	26	421	1	.73	.56	12
Apache	50.2	79	24	21	26	446	2	1.19	.82	12
Fort Cobb	50.2	77	24	21	26	444	1	2.32	1.13	15
Grandfield	52.2	83	24	21	26	389	5	.41	.32	12
Hinton	48.3	74	24	22	26	500	0	2.70	1.73	12
Hobart	50.0	78	24	20	26	450	0	2.12	1.63	12
Hollis	50.1	81	21	17	26	447	0	1.05	.97	12
Mangum	49.5	81	24	13	26	464	0	1.76	1.64	12
Medicine Park	51.3	78	24	22	26	410	1	1.51	.89	12
Tipton	50.9	79	24	18	26	424	0	.73	.51	12
Walters	52.6	83	24	19	26	378	6	.24	.14	15
SOUTH CENTRAL										
Ada	52.9	82	22	20	26	372	9	1.11	.51	12
Ardmore	54.5	82	22	25	26	335	19	1.81	1.06	25
Burneyville	54.2	83	24	20	26	346	23	1.37	.81	12
Byars	52.8	80	22	21	26	370	5	.65	.44	12
Centrahoma	53.1	82	22	19	26	372	14	2.71	1.22	25
Durant	54.4	80	24	25	26	335	16	2.62	1.41	2
Fittstown	52.6	81	22	18	26	382	8	1.76	1.03	25
Ketchum Ranch	53.0	82	24	21	26	366	5	.17	.08	15
Lane	53.0	79	22	22	26	371	11	1.61	.43	29
Madill	54.3	82	22	23	26	340	20	1.24	.51	12
Newport	53.9	82	24	24	26	348	16	2.21	1.48	12
Pauls Valley	52.7	82	24	20	26	376	6	.53	.26	12
Ringling	54.1	84	24	19	26	343	15	.70	.51	25
Sulphur	52.7	80	22	17	26	380	10	3.16	2.32	12
Tishomingo	52.5	82	22	22	26	****	****	1.59	.73	25
Vanoss	52.8	80	22	19	26	372	7	1.95	1.51	12
Waurika	53.8	85	24	20	26	348	10	.30	.13	25
SOUTHEAST										
Antlers	52.4	80	24	20	26	388	10	1.83	.66	2
Broken Bow	51.5	79	23	23	27	407	2	3.48	.66	29
Clayton	53.0	79	24	20	26	369	10	1.97	.62	2
Cloudy	52.3	76	23	25	27	384	4	2.46	.66	2
Hugo	53.9	79	24	26	26	348	14	2.83	1.16	2
Idabel	53.6	81	23	24	27	356	12	3.13	.93	2
Mt Herman	52.5	76	23	24	26	379	4	1.88	.41	12
Talihina	52.9	76	10	21	27	375	12	2.29	.91	25
Wilburton	52.4	78	24	20	26	385	7	1.83	1.32	25
Wister	51.1	78	24	20	6	423	5	2.61	.83	23

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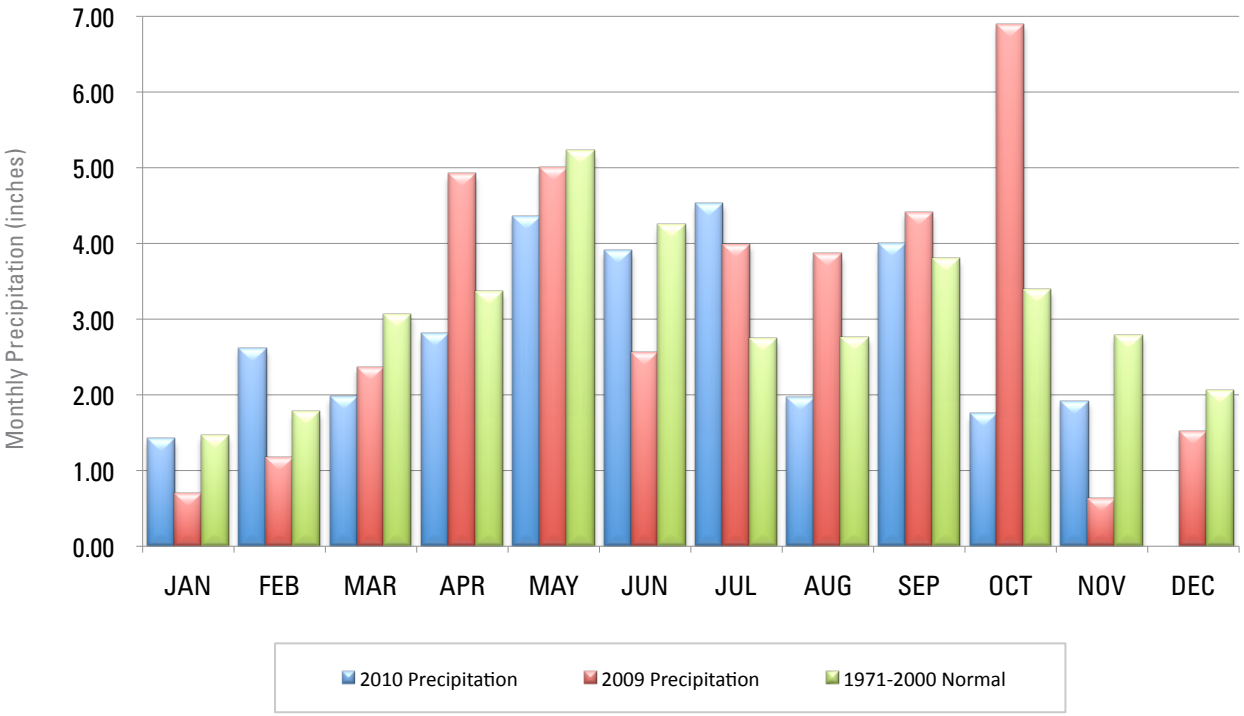
2009 AND 2010 STATEWIDE PRECIPITATION MONTHLY TOTALS VS. NORMAL



November 2010 Mesonet Precipitation Comparison

Climate Division	Precipitation (inches)	Departure from Normal (inches)	Rank since 1895	Wettest on Record (Year)	Driest on Record (Year)	Nov-09
Panhandle	1.38	0.34	30th Wettest	4.07 (1909)	0.00 (1897)	0.21
North Central	2.28	0.20	33rd Wettest	6.48 (1964)	0.00 (1910)	0.62
Northeast	2.61	-1.01	50th Wettest	7.37 (1994)	0.00 (1904)	0.98
West Central	2.24	0.51	24th Wettest	6.62 (1964)	0.00 (1897)	0.30
Central	1.41	-1.40	46th Driest	6.88 (1931)	0.00 (1910)	0.45
East Central	2.28	-2.02	45th Driest	10.16 (1996)	0.20 (1914)	1.25
Southwest	1.34	-0.39	49th Wettest	6.61 (2004)	0.00 (1897)	0.25
South Central	1.50	-1.60	43rd Driest	7.62 (1902)	0.00 (1903)	0.43
Southeast	2.43	-2.64	42nd Driest	13.16 (1946)	0.00 (1903)	1.34
Statewide	1.91	-0.91	55th Wettest	6.12 (2004)	0.14 (1910)	0.64

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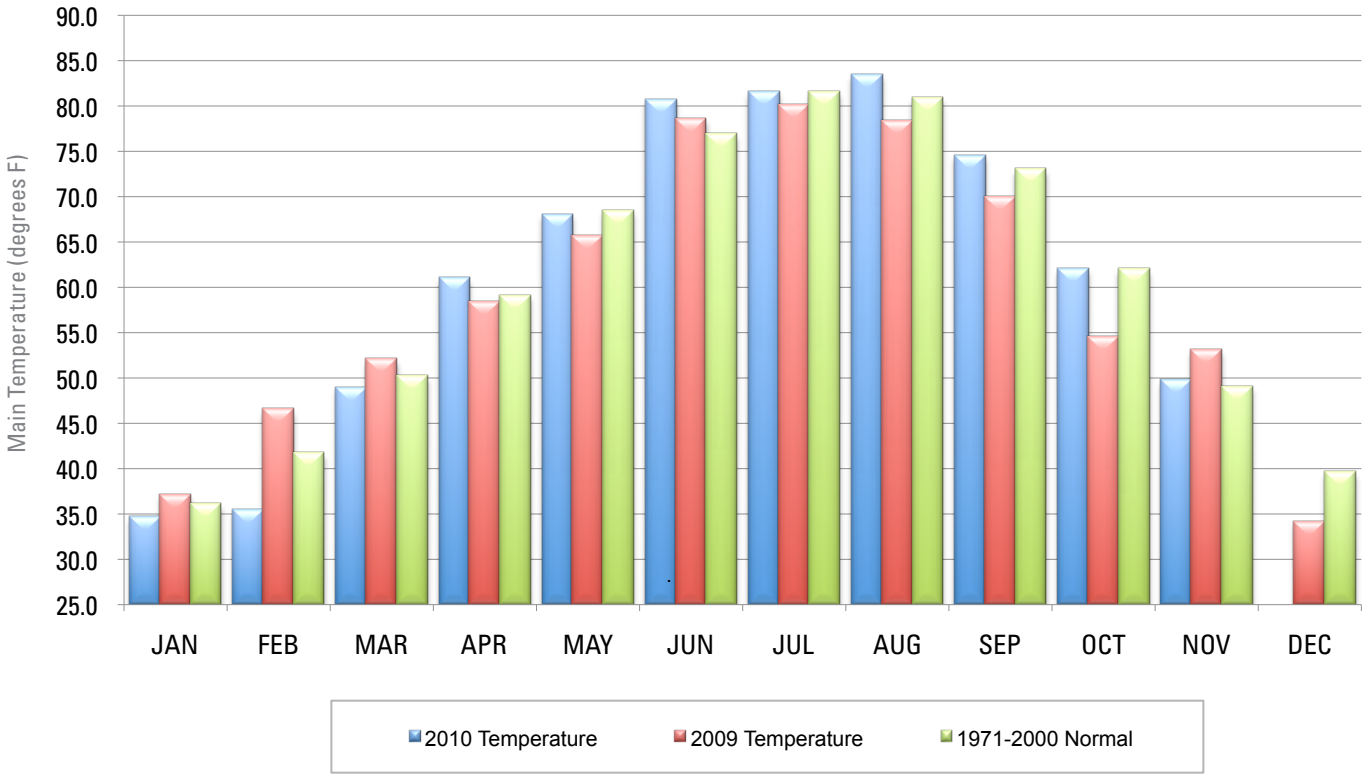
2009 AND 2010 STATEWIDE TEMPERATURE MONTHLY TOTALS VS. NORMAL



November 2010 Mesonet Temperature Comparison

Climate Division	Average Temp (F)	Departure from Normal (F)	Rank since 1895	Hottest on Record (Year)	Coldest on Record (Year)	Nov-09 (F)
Panhandle	44.3	0.3	56th Warmest	51.4 (1999)	36.0 (1929)	48.4
North Central	47.0	0.7	56th Coolest	54.5 (1999)	39.0 (1929)	51.8
Northeast	50.0	2.0	39th Warmest	56.4 (1999)	40.9 (1929)	53.1
West Central	48.1	1.3	51st Warmest	54.7 (1999)	39.7 (1929)	52.2
Central	50.5	1.7	41st Warmest	56.8 (1999)	41.3 (1929)	53.9
East Central	52.0	2.1	33rd Warmest	57.8 (1999)	43.4 (1929)	54.6
Southwest	50.6	1.4	49th Warmest	56.3 (1999)	42.1 (1929)	53.5
South Central	53.4	2.4	34th Warmest	58.3 (1927)	44.1 (1929)	55.8
Southeast	52.5	1.8	42nd Warmest	58.9 (1909)	44.1 (1976)	54.9
Statewide	49.8	1.5	47th Warmest	56.0 (1999)	41.3 (1929)	53.1

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NOVEMBER 2010 SEVERE WEATHER

Flooding

Location	County	Day
Welch	Craig	24

RECORD EVENT REPORTS

Description	Day	Location	Record	Previous Record	Year
Warm Minimum Temperature	21	Oklahoma City	59	58	1890
Maximum Temperature	22	Tulsa	79	79	1966
Maximum Temperature	22	McAlester	80	80	1955
Maximum Temperature	24	Oklahoma City	79	76	2006
Maximum Temperature	24	McAlester	79	79	1965
Minimum Temperature	26	McAlester	19	20	1975

MESONET EXTREMES FOR NOVEMBER 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	84	8th	Buffalo	8	25th	Boise City	2.91	Slapout	1.90	12th	Arnett
North Central	82	8th	Woodward	16	26th	Blackwell	3.59	Seiling	2.72	12th	Seiling
Northeast	80	22nd	Claremore	15	26th	Burbank	4.31	Miami	2.72	24th	Miami
West Central	78	24th	Retrop	14	26th	Camargo	3.11	Putnam	2.53	12th	Putnam
Central	81	24th	Ninnekah	15	26th	Chickasha	3.32	Bristow	1.99	24th	Bristow
East Central	81	22nd	Okmulgee	17	26th	Cookson	3.01	Tahlequah	1.59	25th	Eufaula
Southwest	83	24th	Grandfield	13	26th	Mangum	2.70	Hinton	1.73	12th	Hinton
South Central	85	24th	Waurika	17	26th	Sulphur	3.16	Sulphur	2.32	12th	Sulphur
Southeast	81	23rd	Idabel	20	26th	Wilburton	3.48	Broken Bow	1.32	25th	Wilburton
Statewide	85	24th	Waurika	8	25th	Boise City	4.31	Miami	2.72	12th	Seiling

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DECEMBER OUTLOOK

The winter month of December is Oklahoma's second coldest and third driest month. Overnight freezes are the rule, particularly in northern portions of the state, and winter storms often provide the state with snow and ice that create more havoc than the precipitation totals they provide are worth.

The statewide-averaged monthly mean temperature in December is 39.6 degrees. The range of mean temperature from south-to-north is greater than 10 degrees Fahrenheit, ranging from 44.2 degrees at Waurika to 33.5 degrees at Turpin. Since 1892, the historical range of December statewide-averaged mean temperature is from a low of 25.8 degrees in 1983 to a high of 45.4 degrees, achieved in 1965. Normal daily maximum temperatures for the month range from 45.2 degrees at Newkirk to 56.0 degrees at Waurika. Normals of daily minimum temperatures vary from 19.7 degrees at Beaver to 33.9 degrees at Okemah. The state's recorded December temperature extremes are 92 degrees at Ardmore on December 30, 1951 and 18 degrees below zero (-18) at Perry on December 22, 1989.

Temperature

Mean	39.6 degrees
Warmest December	1933 and 1965, 46.5 degrees
Coolest December	1983, 26.5 degrees
Warmest location	Waurika, 44.2 degrees
Coolest location	Turpin, 33.5 degrees
Hottest recorded	92 degrees, Ardmore, December 30, 1951
Coldest recorded	-19 degrees, Goodwell, December 12, 1932

December precipitation, including rain and melted snow or sleet, when averaged statewide, accumulates only to a depth of 2.04 inches. The historical range of statewide-averaged monthly precipitation is from 0.10 inch in 1950 to 4.98 inches in 1984.The range of normal precipitation, increasing from the northwest to the southeast, is from 0.34 inch at Goodwell to 5.19 inches at Smithville. The extreme southeastern corner of the state received a record-breaking soaking in December 1971, exemplified by the 18.13 inches recorded at Bear Mountain Tower in Western McCurtain County, which established the state record for December precipitation at a given station. The state record for daily precipitation during December (11.34 inches) was established at the same location on December 10, 1971.

Snow is common in the northwestern portions of the state by late December. Boise City averages 6.1 inches of snow per December. Stations in the far southern portions of the state generally average less than one-half inch of snow during December. Records for snowfall extremes were set at Beaver. That panhandle city, while en route to a state-record seasonal snowfall of 87 inches, received 35 inches of snow in December 1911, including 22 inches reported on the 19th.

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 December Tornadoes	0.4
Most	4 (1982)

From 1911 forward, sufficient snow has been on the ground on Christmas morning for large portions of the state to declare a "White Christmas" in seventeen different years. Most snowy Christmases have occurred in the state's northwestern half, but other areas of the state have also been affected from time-to-time.

An unfortunate by-product of developing winter storms is the presence of sleet or freezing rain. Major ice storms spread across much of the state, beginning on Christmas Day in 1987 and, again, in 2000. Those two storms left 114,000 and 175,000 customers, respectively, without power for several days. A similar storm in mid-December 1937 left extensive damage to power and telephone lines in central and northern Oklahoma. For many late December travelers, the winter storms that seem inevitable during the week between Christmas and New Year's Day sometimes appear to have become something of an Oklahoma tradition. Other major ice storms struck Oklahoma during the Decembers of 1897, 1916, 1924, 1969, 1972, and 1998.

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Tornadoes are not a regular December feature. Only 22, occurring in seven different years, are included in the comprehensive database that begins in 1950. Four tornadoes were reported in Oklahoma during each of 1971, 1975, and 1982.

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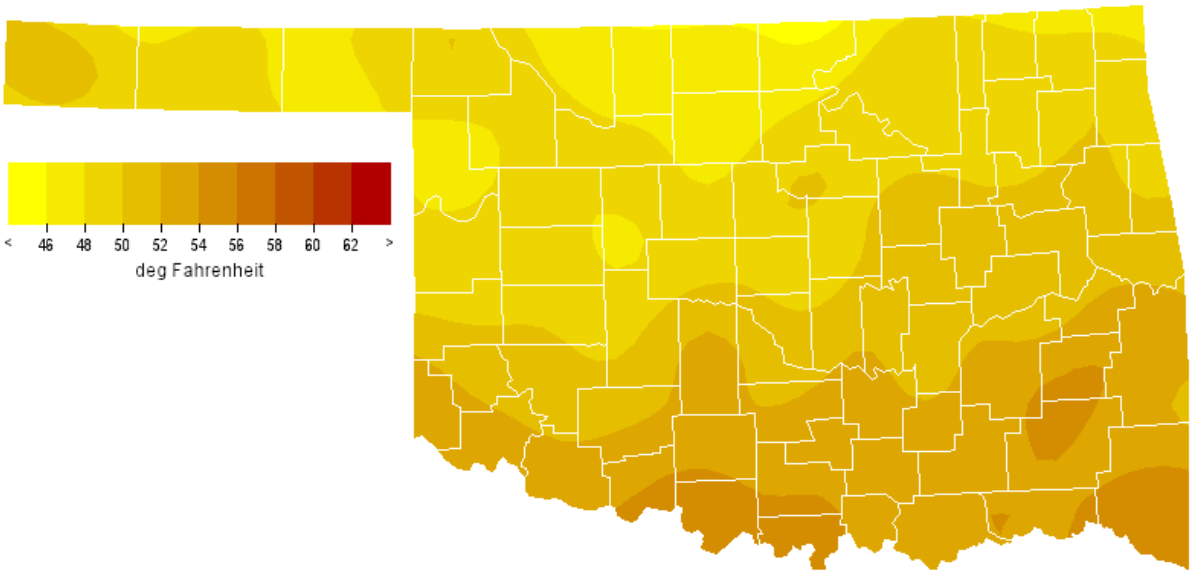
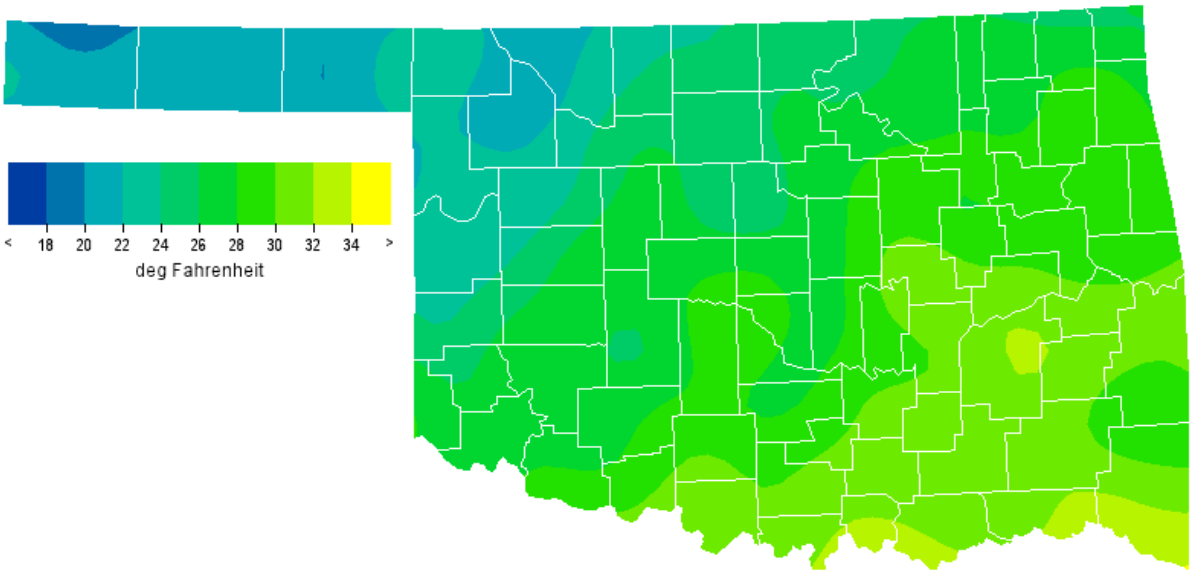
DECEMBER NORMAL DAILY MAXIMUM TEMPERATURE (1971-2000)



DECEMBER NORMAL DAILY MINIMUM TEMPERATURE (1971-2000)



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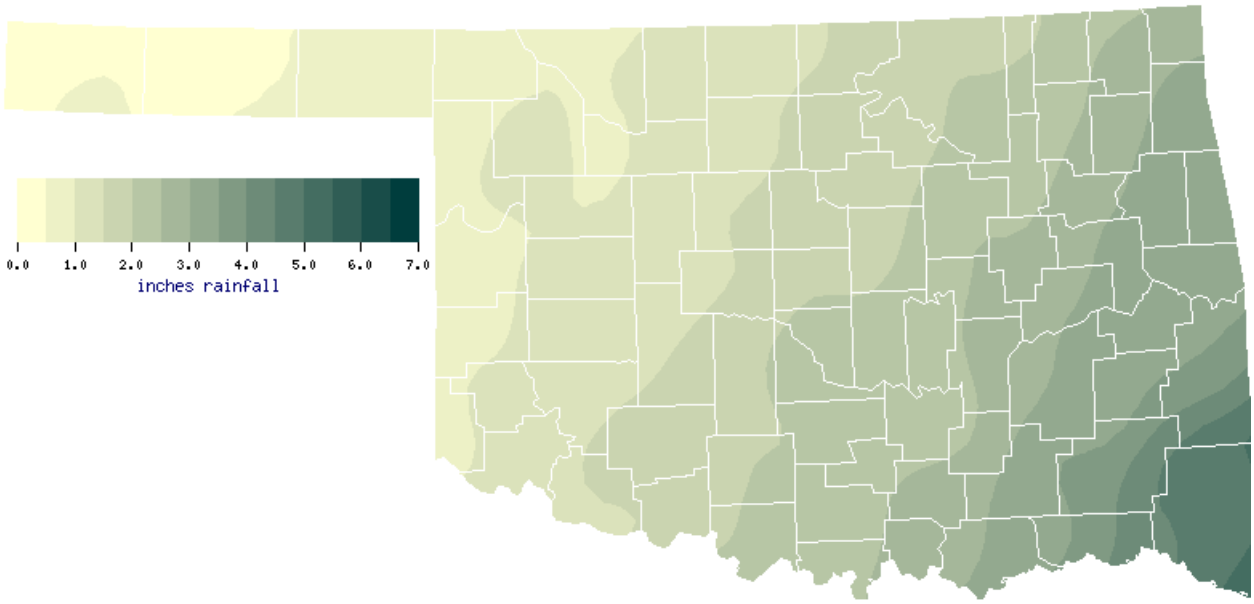
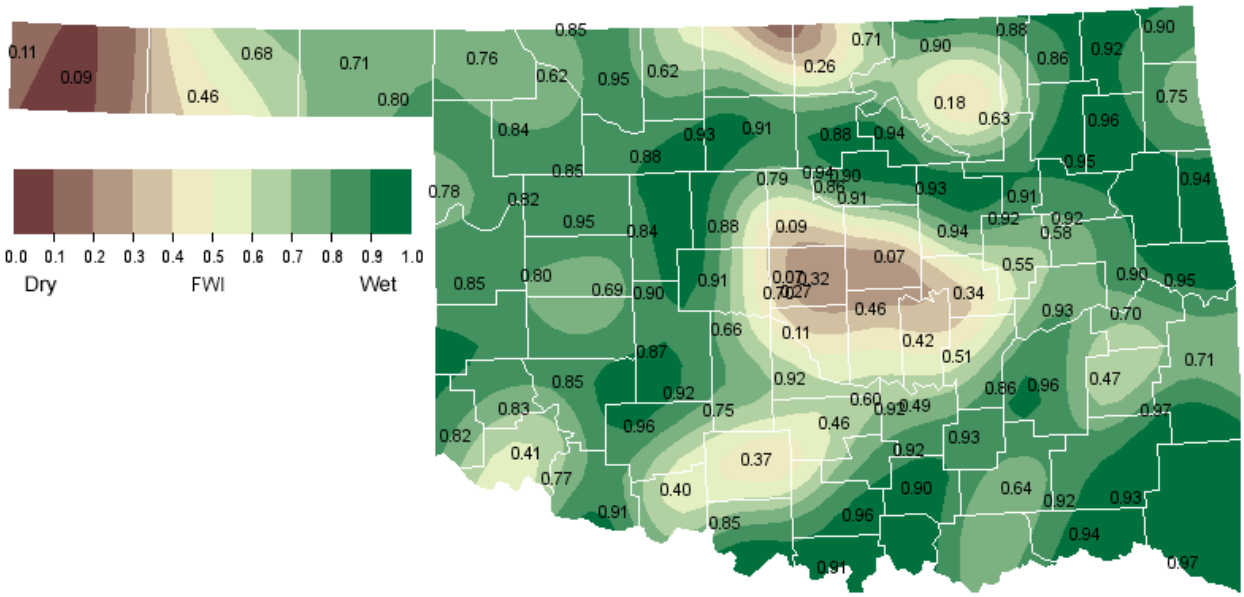
DECEMBER NORMAL PRECIPITATION (1971-2000)



DECEMBER 1, 2010 SOIL MOISTURE CONDITIONS AT 25CM



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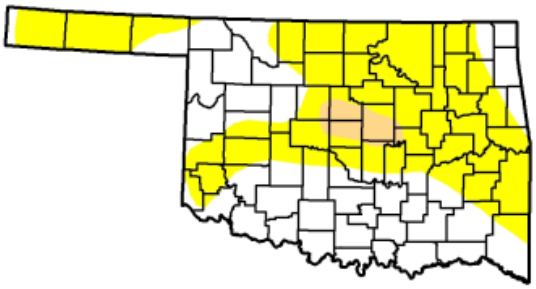
DECEMBER 2010 DROUGHT INDICES

U.S. Drought Monitor
Oklahoma

November 30, 2010
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	46.3	53.7	3.1	0.0	0.0	0.0
Last Week (11/23/2010 map)	47.5	52.5	3.1	0.0	0.0	0.0
3 Months Ago (09/07/2010 map)	42.3	57.7	35.8	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 (10/05/2010 map)	66.3	33.7	4.2	0.0	0.0	0.0
One Year Ago (12/01/2009 map)	100.0	0.0	0.0	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

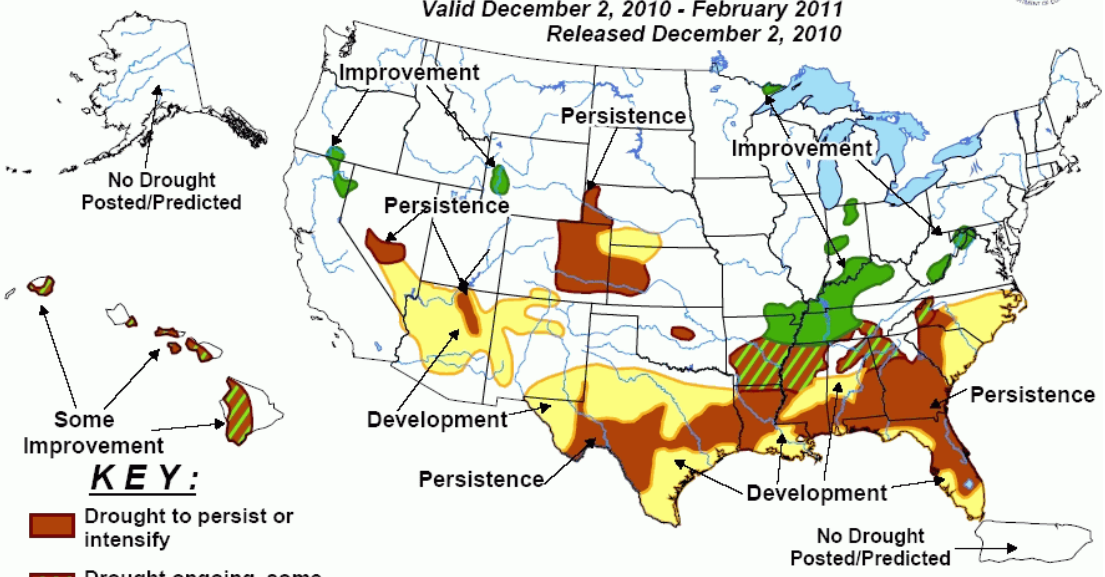
http://drought.unl.edu/dm

USDA National Drought Mitigation Center

Released Thursday, December 2, 2010
Author: R. Tinker, CPC/NOAA

U.S. Seasonal Drought Outlook
Drought Tendency During the Valid Period

Valid December 2, 2010 - February 2011
Released December 2, 2010



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.

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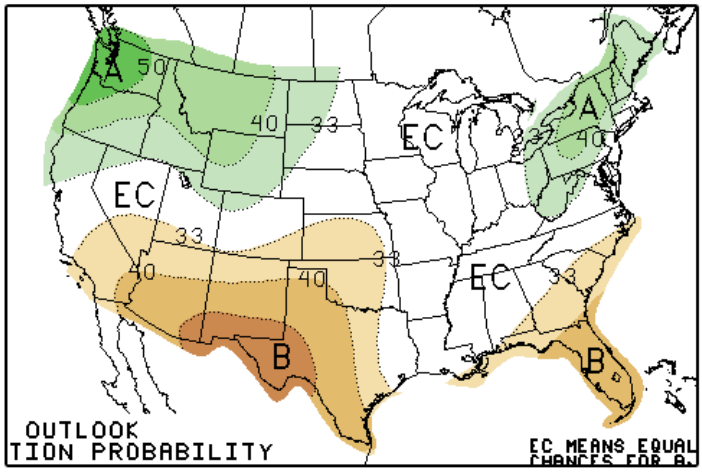
DECEMBER 2010 U.S. PRECIPITATION FORECAST



Percent Likelihood of Above or Below Average Precipitation*

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

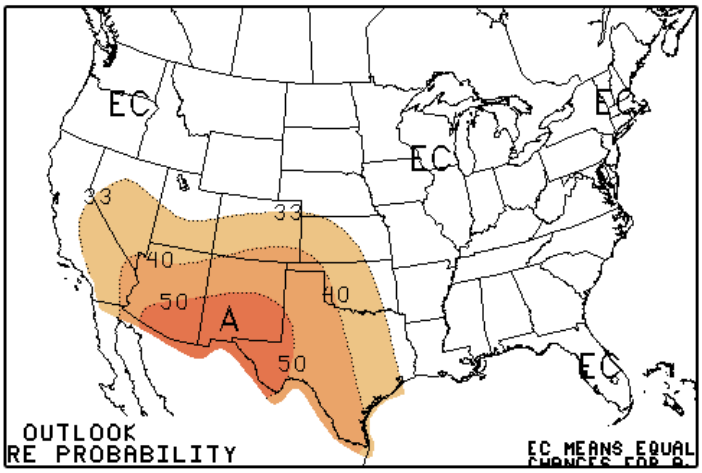
A = Above

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

B = Below

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

DECEMBER 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.

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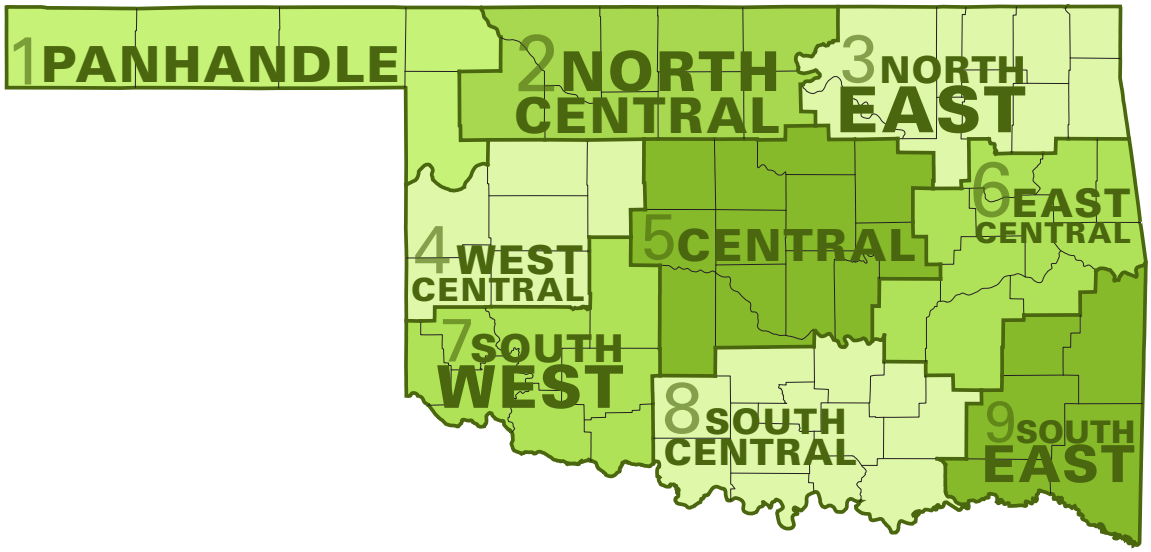
DECEMBER CLIMATE NORMALS

Climate Division	Max. Temperature (°F)	Min. Temperature (°F)	Avg. Temperature (°F)	Precipitation (inches)
1	49.2	21.7	35.5	0.68
2	47.2	23.9	35.6	1.30
3	49.4	27.8	38.6	2.29
4	48.8	25.3	37.1	1.11
5	50.2	28.0	39.1	1.98
6	51.2	30.0	40.6	3.01
7	51.6	27.1	39.4	1.39
8	53.3	30.4	41.9	2.54
9	53.9	30.7	42.3	4.21
Statewide	50.5	27.3	38.9	2.14

Oklahoma Climate Divisions



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INTERPRETATION INFORMATION

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

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

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

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

ADDITIONAL RESOURCES

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

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

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

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

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

OKLAHOMA CLIMATOLOGICAL SURVEY

Oklahoma Climatological Survey is the State Climate Office for Oklahoma

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