OKLAHOMA MONTHLY CLIMATE SUMMARY
DECEMBER 2002

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Oklahoma Climatological Survey

MONTHLY SUMMARY FOR DECEMBER 2002

December 2002

Statewide average temperature = 40.4º F
Statewide average rainfall = 2.99 inches

Following the decidedly uneventful weather of November, practically any occurrence of adverse weather conditions in December would seem exciting in comparison. And the month's weather didn't disappoint, spanning the gamut of meteorological delights. From spring-like conditions to bone-chilling cold, severe thunderstorms to ice storms, and a rare white Christmas for a good portion of the state – December had it all.

The extraordinary events were not reflected in the statewide-averaged temperature. At 40.4 degrees, December finished a very unremarkable 0.8 degrees above normal, which ranks it as the 55th warmest since record-keeping began in 1892. The statewide-averaged monthly precipitation of 2.99 inches was more indicative of the turbulent events. Buoyed by greater than normal precipitation in western and southern Oklahoma, the final tally was 0.95 inches above normal, making this the 17th wettest December out of the last 111. South central Oklahoma experienced 175 percent of normal precipitation, while all of the western-third of the state finished with at least 162 percent of normal. The highest monthly precipitation for the month was reported at Bokchito (Bryan) with 8.08 inches.

December Normals

Statewide average temperature = 39.6º F
Statewide average rainfall = 2.04 inches

The January-to-December statewide-averaged statistics indicate 2002 finished cooler and drier than normal. The annual statewide-averaged precipitation of 35.28 inches is 1.16 inches less than normal, amounting to the 47th greatest annual total since 1892. The annual statewide-averaged temperature of 59.4 degrees is 0.8 degrees below normal, establishing 2002 as the 19th coolest year on record.

Following a couple of days with clear skies and temperatures in the 60s and 70s, a strong cold front entered the state late on the 2nd. Atmospheric conditions combined the following day to produce a mixture of rain, freezing rain, sleet, and snow, prompting winter storm warnings for the northwestern half of Oklahoma. The freezing rain struck an area almost identical to that of the catastrophic January 2002 ice storm, although its intensity was significantly less than that of the storm 11 months ago. Approximately 60,000 homes and businesses were left without power along the storm's corridor of destruction from western Oklahoma stretching up into far-northeastern portions of the state. Generally, areas northwest of the ice received snow, while heavy rain was the primary precipitation type in areas south and east of the ice. Snowfall amounts of 5 to 8 inches were widespread to the north of a line from near Cheyenne (Roger Mills County) to Fairview (Major) to Jefferson and Renfrow (both in Grant County), with Guymon (Texas) and Arnett (Ellis) topping the list at 10 and 9 inches, respectively. Lesser amounts of 1 to 4 inches fell elsewhere, generally to the north of interstates 40 and 44. Most of southern Oklahoma received beneficial rainfall totaling over one inch.

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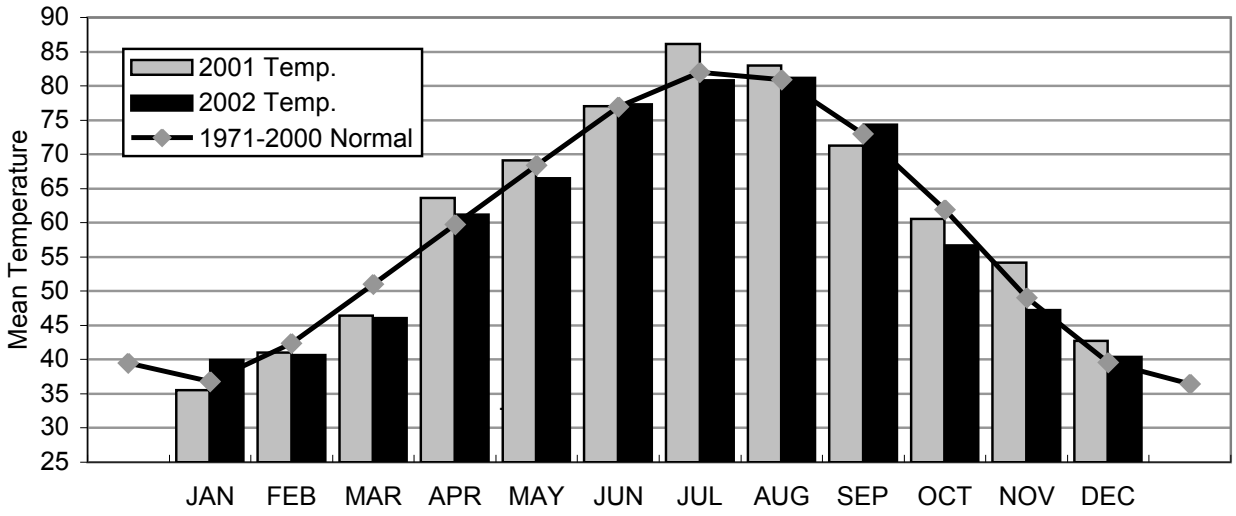
Most of the state experienced a period of tranquil weather around mid-month, with clear skies and unseasonably warm temperatures in the 60s and 70s. The high temperature for the month, 78 degrees, was recorded on the 17th at Waurika (Jefferson), Walters (Cotton), and Pauls Valley (Garvin). On the same day in northern Oklahoma, however, localized rain showers generated peak wind gusts of over 50 mph which were recorded by the Oklahoma Mesonet stations in Blackwell (Kay), Medford (Grant), Camargo (Dewey), and Breckenridge (Garfield).

A strong cold front, combined with a powerful upper level low pressure system, spoiled the pleasant weather on the 23rd, covering a good portion of northern Oklahoma in a blanket of snow. Miami (Ottawa) reported 15 inches of snow, Enid (Garfield), Hooker (Texas), and Grove (Delaware) received 12 inches, and Hinton (Caddo) received 10 inches, while 7 inches fell at both Blackwell (Kay) and Pond Creek (Grant). Much of the snow remained in place to give parts of Oklahoma their first white Christmas since 1975. Four fatalities were associated with the inclement weather, along with hundreds of traffic accidents. One man died after slipping as he attempted to push a pickup from a snowbank, hitting his stomach on the tailgate and rupturing his spleen. The weight of the heavy snow collapsed the roof of a Hobby Lobby store in Tulsa (Tulsa) while 50 customers and workers were inside. Fortunately, only one minor injury was reported. Rain was the primary precipitation type south of a line from Altus (Jackson) to Chickasha (Grady) to Seminole (Seminole) to McCurtain (Haskell), where amounts greater than an inch were the rule. Bokchito reported the most rainfall with 2.50 inches, while Idabel (McCurtain), Tuskahoma, and Clayton (both in Pushmataha County) had rainfall amounts in excess of 2 inches. The snowcover helped produce the coldest weather of the season on the 26th with 6 locations reporting sub-zero temperatures. The Kenton (Cimarron) Mesonet site recorded the lowest temperature of the month at –6 degrees.

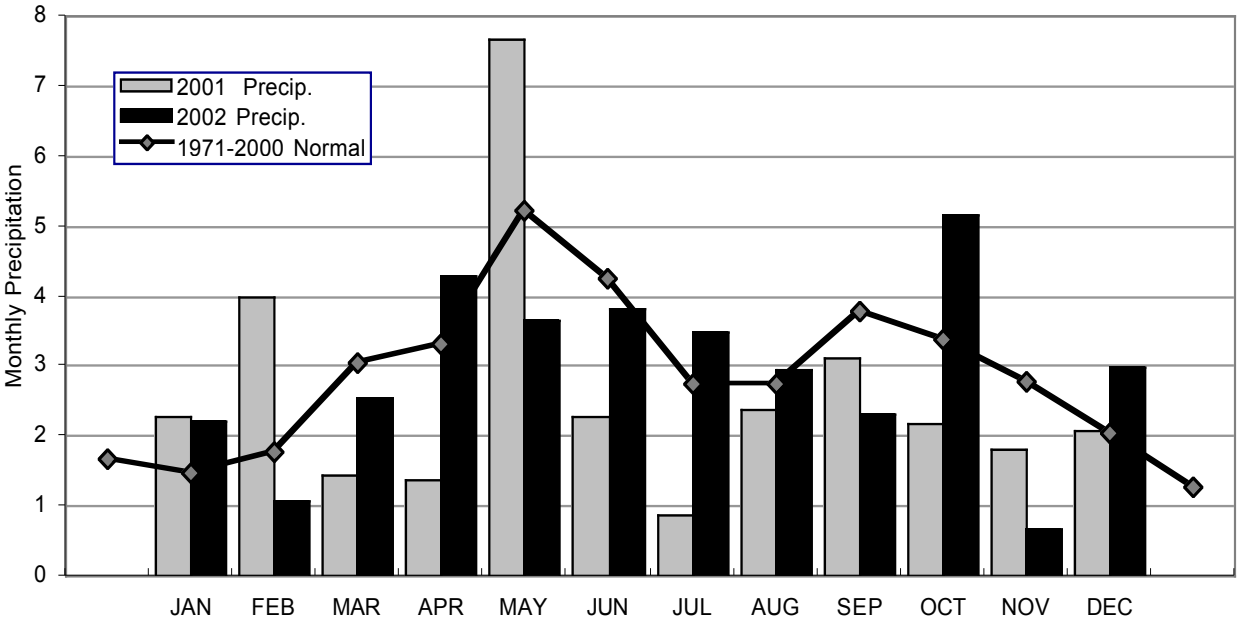
The year ended on an ironic note, as a series of powerful thunderstorms moved across southern Oklahoma on the 30th, bringing widespread severe weather in a year which experienced rather timid severe weather seasons. Heavy rainfall, damaging winds, and large hail were common throughout the region. The Tishomingo (Johnston) Mesonet site recorded a wind gust of 89 mph, and strong winds brought down large tree limbs 10 miles east of Lenapah (Nowata). Other wind damage occurred 1 mile east of Braggs (Muskogee) with trees blown down at Camp Gruber, and near Rock Island (LeFlore) with damage to metal storage buildings. Hail exceeding 0.75 inches in diameter was reported 1 mile west of Fittstown and 2 miles southeast of Ada (both in Pontotoc County), Ardmore (Carter), and Welch and Whiteoak (both in Craig County).

Gary McManus

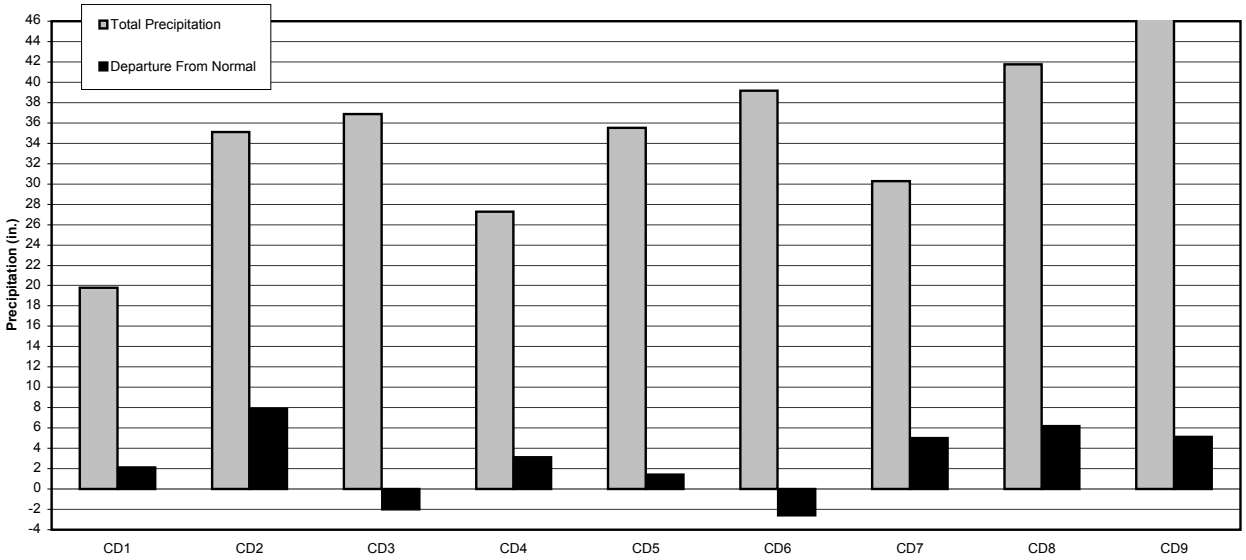
2001 AND 2002 STATEWIDE TEMPERATURES - MONTHLY AVERAGES



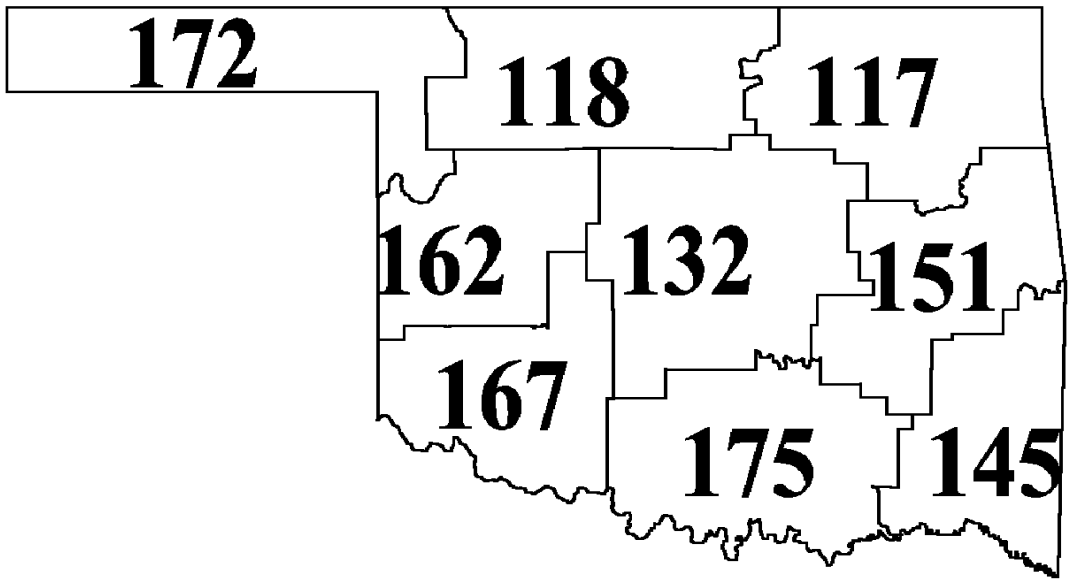
2001 AND 2002 STATEWIDE PRECIPITATION - MONTHLY TOTALS



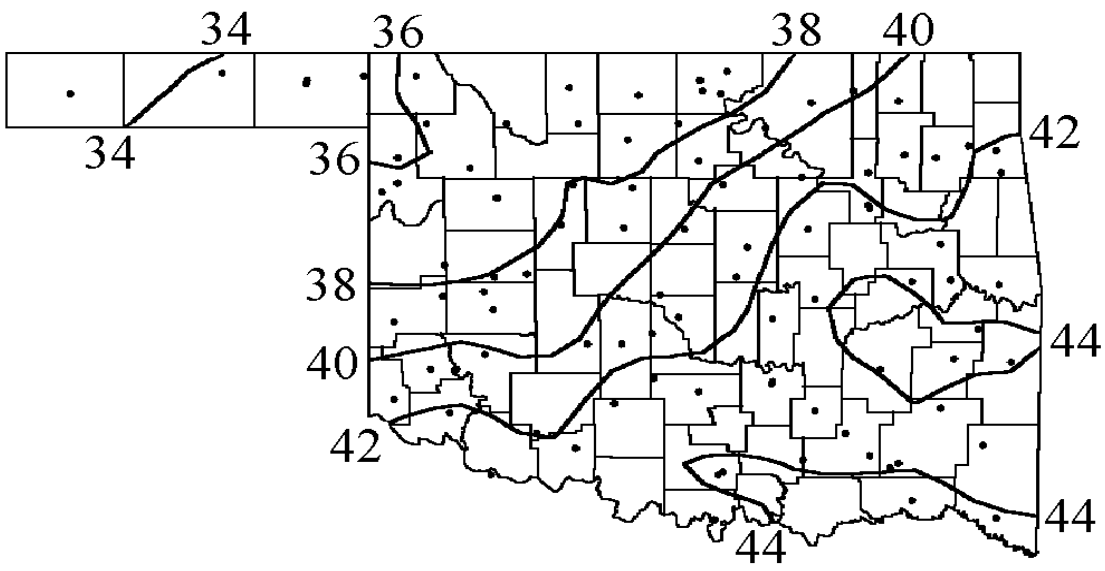
CLIMATE DIVISION AVERAGED PRECIPITATION - JANUARY THROUGH DECEMBER 2002



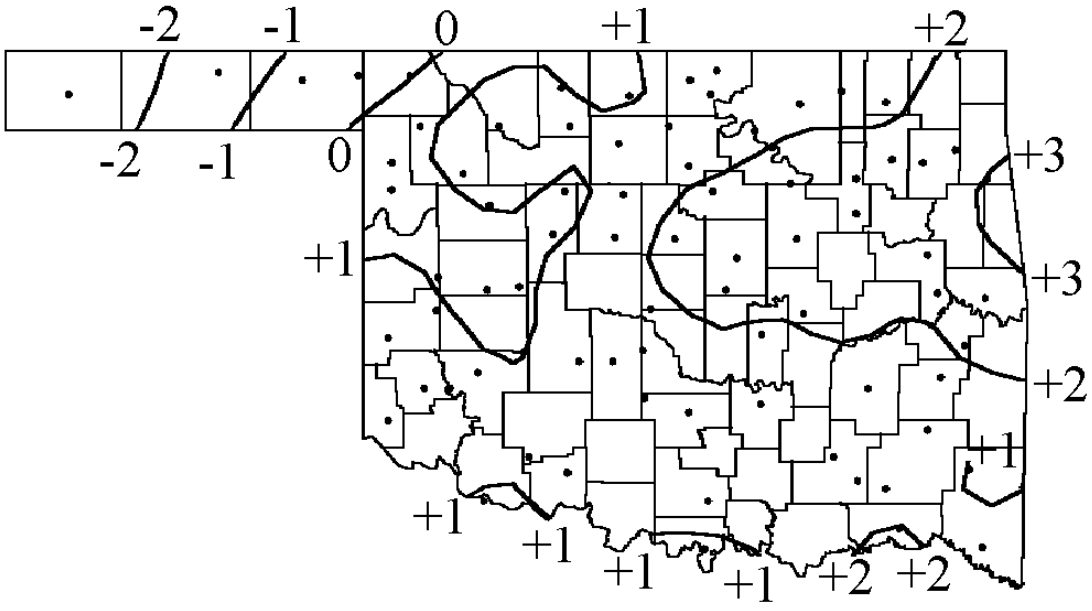
CLIMATE DIVISION PERCENT OF NORMAL PRECIPITATION - DECEMBER 2002



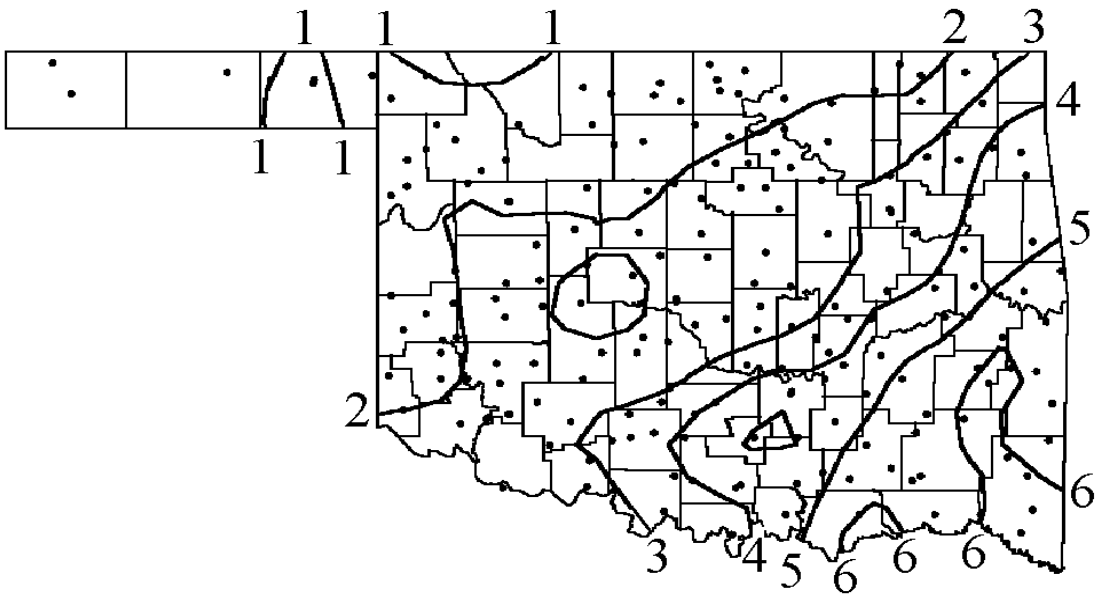
DECEMBER 2002 AVERAGE MONTHLY TEMPERATURE (ºF)



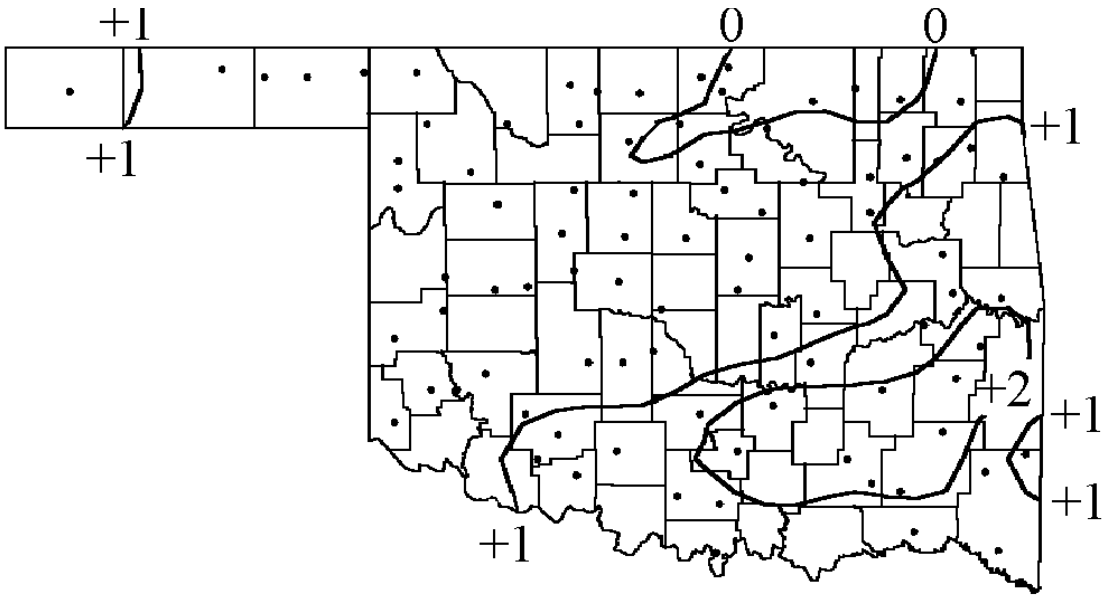
DECEMBER 2002 DEPARTURE FROM NORMAL TEMPERATURE (ºF)



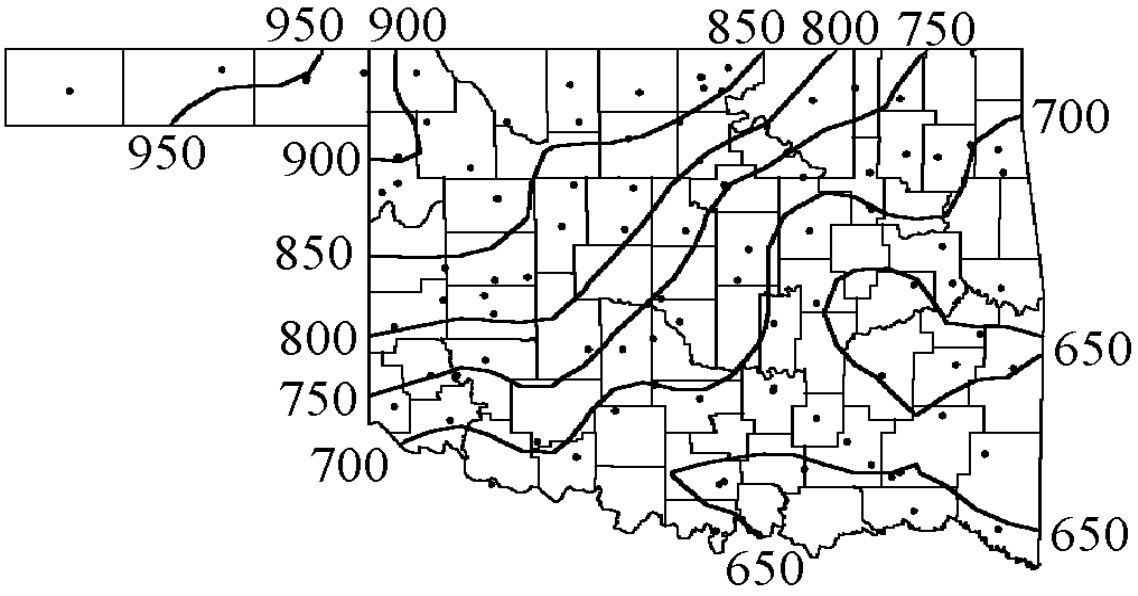
DECEMBER 2002 PRECIPITATION (INCHES)



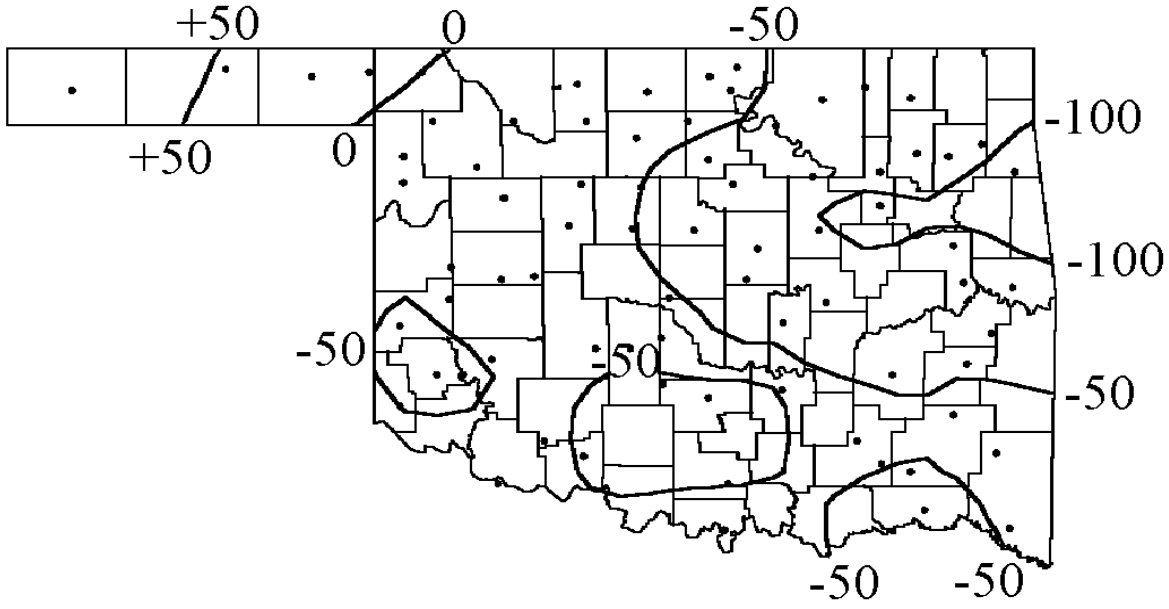
DECEMBER 2002 DEPARTURE FROM NORMAL PRECIPITATION (INCHES)



DECEMBER 2002 ACCUMULATED HEATING DEGREE DAYS (ºF)



DECEMBER 2002 DEPARTURE FROM NORMAL HEATING DEGREE DAYS (ºF)



DECEMBER 2002 SUMMARY FOR PANHANDLE CLIMATE DIVISION (CD1)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ARNETT	332	1	35.8	31	0.8	69	15	8	25	905	-27	0	0	2.192	31	1.18	1.51	4
BEAVER	593	1	33.3	31	-0.7	66	16	-1	26	982	21	0	0	1.051	31	0.27	0.68	4
BOISE CITY	908	1	32.9	31	-3.0	67	14	-4	26	997	93	0	0	1.602	31	1.10	0.80	23
BUFFALO	1243	1	37.0	31	-0.7	68	16	10	26	869	22	0	0	0.822	31	-0.03	0.52	4
FARGO	3070	1	*****	0	*****	****	0	****	0	******	******	******	******	1.300	31	*****	0.90	4
GAGE	3407	1	35.6	31	0.5	68	15	4	25	911	-18	0	0	0.893	31	0.01	0.38	5
GATE	3489	1	35.5	31	-0.4	67	16	4	26	915	13	0	0	1.160	31	0.26	0.69	4
GUYMON	3835	1	33.6	15	*****	66	2	-1	27	472	******	0	******	0.000	15	*****	0.00	31
HOOKER	4298	1	34.4	31	-1.4	68	15	5	25	949	45	0	0	1.490	31	0.94	0.59	23
LAVERNE	5045	1	42.2	22	*****	71	15	10	25	501	******	0	******	1.541	31	*****	0.96	4
REGNIER	7534	1	*****	0	*****	****	0	****	0	******	******	******	******	1.461	31	*****	0.59	23
TURPIN	9017	1	33.0	22	*****	65	18	-1	26	705	******	0	******	0.690	31	0.18	0.35	4

DECEMBER 2002 SUMMARY FOR NORTH CENTRAL CLIMATE DIVISION (CD2)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
BLACKWELL 2E	818	2	37.3	31	1.8	67	18	11	26	859	-57	0	0	2.984	31	1.59	0.97	5
BILLINGS	755	2	37.3	31	1.0	67	18	8	25	860	-29	0	0	1.301	31	-0.29	0.85	4
BRAMAN	1075	2	*****	0	*****	****	0	****	0	******	******	******	******	1.001	31	*****	0.55	4
CEDARDALE	1620	2	*****	0	*****	****	0	****	0	******	******	******	******	1.932	31	*****	1.16	4
CHEROKEE	1724	2	36.1	30	1.1	69	18	7	7	866	-63	0	0	1.151	31	-0.07	0.70	4
ENID	2912	2	37.9	31	1.8	68	18	16	25	842	-57	0	0	1.261	31	-0.13	1.07	4
FREEDOM	3358	2	35.2	29	*****	69	16	9	25	865	******	0	******	0.871	30	*****	0.56	3
FT SUPPLY	3304	2	35.7	31	1.4	69	16	4	25	909	-44	0	0	1.120	31	0.19	0.67	4
GREAT SALT P	3740	2	37.1	28	*****	70	18	14	6	782	******	0	******	1.760	31	0.75	0.60	4
HELENA	4019	2	36.6	31	0.8	67	18	11	26	879	-28	0	0	1.963	31	0.67	0.91	4
JEFFERSON	4573	2	36.2	31	0.5	70	18	7	7	893	-17	0	0	1.312	31	-0.08	0.66	4
LAHOMA	4950	2	39.1	29	*****	68	18	14	27	752	******	0	******	0.970	31	*****	0.45	4
LAMONT	5013	2	*****	0	*****	****	0	****	0	******	******	******	******	1.742	31	*****	0.98	4
MORRISON	6065	2	*****	0	*****	****	0	****	0	******	******	******	******	2.510	31	*****	1.25	4
MEDFORD	5768	2	*****	0	*****	****	0	****	0	******	******	******	******	1.990	31	*****	0.95	4
MUTUAL	6139	2	36.4	31	0.8	67	18	12	28	886	-28	0	0	1.740	31	0.76	1.07	4
NEWKIRK	6278	2	36.4	31	1.5	65	16	7	26	886	-47	0	0	1.191	31	-0.54	0.62	24
ORIENTA	6751	2	*****	0	*****	****	0	****	0	******	******	******	******	0.651	26	*****	0.49	4
PERRY	7012	2	39.6	31	2.2	68	16	14	26	788	-67	0	0	1.850	31	0.06	1.02	25
PONCA CITY	7201	2	37.5	30	0.4	66	15	5	25	826	-40	0	0	0.295	31	-1.38	0.23	3
RED ROCK	7505	2	*****	0	*****	****	0	****	0	******	******	******	******	1.821	31	*****	1.07	3
WAYNOKA	9404	2	37.5	31	2.1	71	17	11	6	854	-66	0	0	1.053	31	0.07	0.54	3
WOODWARD	9760	2	*****	0	*****	****	0	****	0	******	******	******	******	1.693	31	*****	0.96	4

DECEMBER 2002 SUMMARY FOR NORTHEAST CLIMATE DIVISION (CD3)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
BARTLESVILLE	548	3	39.7	31	1.2	68	17	6	25	783	-41	0	0	1.911	31	-0.15	0.79	4
BIXBY	782	3	42.2	30	3.5	71	17	13	25	684	-131	0	0	4.041	31	1.65	1.70	30
BURBANK	1256	3	*****	0	*****	****	0	****	0	******	******	******	******	1.940	31	*****	0.90	23
CHELSEA	1717	3	*****	0	*****	****	0	****	0	******	******	******	******	3.080	31	*****	1.37	4
CLAREMORE	1828	3	39.7	31	1.8	69	19	8	26	784	-57	0	0	3.543	31	0.93	1.58	4
HOLLOW	4258	3	*****	0	*****	****	0	****	0	******	******	******	******	1.601	31	*****	0.88	4
HOMINY	4289	3	*****	0	*****	****	0	****	0	******	******	******	******	2.581	31	*****	1.40	4
KANSAS	4672	3	43.0	30	3.4	68	18	13	26	662	-128	0	0	4.410	31	0.81	1.59	3
LENAPAH	5118	3	*****	0	*****	****	0	****	0	******	******	******	******	1.900	31	*****	0.73	13
MANNFORD	5522	3	42.4	31	3.1	68	15	9	25	701	-97	0	0	3.160	31	0.98	1.67	4
MARAMEC	5540	3	*****	0	*****	****	0	****	0	******	******	******	******	3.180	31	*****	1.55	4
NOWATA	6485	3	40.7	30	2.0	70	2	7	26	730	-89	0	0	1.220	31	-1.05	0.62	3
PAWHUSKA	6935	3	39.8	30	1.8	68	18	6	25	758	-80	0	0	2.050	31	-0.05	0.84	4
PAWNEE	6940	3	*****	0	*****	****	0	****	0	******	******	******	******	2.761	31	*****	1.35	4
PRYOR	7309	3	40.1	30	2.4	70	19	8	26	746	-101	0	0	3.582	31	1.00	1.60	4
RALSTON	7390	3	38.2	31	1.4	68	17	3	25	832	-43	0	0	2.090	31	0.24	1.38	24
SPAVINAW	8380	3	43.5	31	2.4	68	18	8	25	666	-78	0	0	4.560	31	1.67	1.40	24
TULSA	8992	3	42.7	31	3.0	71	2	14	25	693	-89	0	-1	2.754	31	0.32	1.12	3
UPPER SPAV	9101	3	41.5	30	*****	69	17	12	26	705	******	0	******	4.682	31	*****	1.46	4
VINITA	9203	3	40.9	29	*****	68	18	6	26	700	******	0	******	3.852	31	0.97	1.51	24
WANN	9298	3	*****	0	*****	****	0	****	0	******	******	******	******	2.150	31	*****	0.88	4

DECEMBER 2002 SUMMARY FOR WEST CENTRAL CLIMATE DIVISION (CD4)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
CLINTON	1909	4	37.7	31	-0.1	70	17	16	28	848	5	0	0	2.515	31	1.15	1.15	23
COLONY	2039	4	*****	0	*****	****	0	****	0	******	******	******	******	1.770	31	*****	0.85	23
CORDELL	2125	4	38.5	31	*****	72	18	8	26	823	******	0	******	2.653	31	*****	0.90	4
ELK CITY	2849	4	38.5	31	1.4	71	18	14	26	823	-43	0	0	1.811	31	0.76	0.90	4
ERICK	2944	4	39.0	31	2.0	72	18	11	26	807	-62	0	0	0.411	31	-0.52	0.26	23
GEARY	3497	4	38.6	28	*****	68	19	8	24	740	******	0	******	1.540	31	0.24	1.00	3
HAMMON	3871	4	36.8	30	0.8	70	18	8	26	847	-53	0	0	2.140	31	1.07	1.22	4
MORAVIA	6035	4	*****	0	*****	****	0	****	0	******	******	******	******	2.051	31	*****	0.80	4
OKEENE	6629	4	39.3	31	0.7	68	18	9	25	797	-23	0	0	1.231	31	-0.13	0.50	23
RETROP	7565	4	*****	0	*****	****	0	****	0	******	******	******	******	2.710	31	*****	1.17	24
SAYRE	7952	4	*****	0	*****	****	0	****	0	******	******	******	******	1.450	31	*****	0.77	4
SWEETWATER	8652	4	*****	0	*****	****	0	****	0	******	******	******	******	1.150	31	*****	0.65	24
TALOGA	8708	4	36.9	31	1.3	68	15	3	25	872	-40	0	0	1.420	31	0.42	0.84	4
THOMAS	8815	4	*****	0	*****	****	0	****	0	******	******	******	******	2.290	31	*****	1.15	4
VICI	9172	4	*****	0	*****	****	0	****	0	******	******	******	******	2.362	31	*****	1.85	4
WATONGA	9364	4	37.3	31	0.7	68	18	7	25	859	-21	0	0	3.063	31	1.59	1.65	24
WEATHERFORD	9422	4	39.0	31	1.3	70	18	12	25	806	-42	0	0	2.380	31	1.14	1.08	4

DECEMBER 2002 SUMMARY FOR CENTRAL CLIMATE DIVISION (CD5)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
AMBER	200	5	*****	0	*****	****	0	****	0	******	******	******	******	1.630	31	*****	1.13	17
ARCADIA	288	5	*****	0	*****	****	0	****	0	******	******	******	******	2.881	31	*****	1.32	4
BLANCHARD	830	5	41.5	31	0.0	71	18	17	25	730	-1	0	0	2.421	31	0.44	1.63	4
BRISTOW	1144	5	42.3	30	2.3	73	17	9	25	682	-96	0	0	2.100	31	-0.40	1.28	4
CHANDLER	1684	5	41.4	30	2.3	71	18	14	26	709	-96	0	0	2.400	31	0.52	1.10	24
CHICKASHA EXP	1750	5	43.0	31	1.7	71	17	16	25	681	-57	0	0	2.101	31	0.20	1.10	3
COX CITY	2196	5	*****	0	*****	****	0	****	0	******	******	******	******	2.790	31	*****	1.16	4
CUSHING	2318	5	41.9	27	*****	70	18	16	26	625	******	0	******	3.112	31	1.20	1.52	5
EL RENO	2818	5	39.3	29	*****	71	18	10	26	744	******	0	******	1.450	31	0.03	1.00	4
GUTHRIE	3821	5	40.5	31	2.7	69	19	11	26	760	-85	0	0	2.841	31	0.78	1.24	4
HENNESSEY	4055	5	36.7	30	0.5	66	18	11	26	849	-45	0	0	1.280	31	-0.14	1.21	24
INGALLS	4489	5	*****	0	*****	****	0	****	0	******	******	******	******	3.501	31	*****	1.80	25
KINGFISHER	4861	5	38.9	31	1.7	69	18	10	29	811	-53	0	0	2.500	31	0.88	1.25	24
KONAWA	4915	5	*****	0	*****	****	0	****	0	******	******	******	******	4.440	31	*****	1.77	3
MARSHALL	5589	5	*****	0	*****	****	0	****	0	******	******	******	******	2.520	31	*****	1.52	4
MEEKER	5779	5	41.4	31	3.6	71	18	14	26	731	-113	0	0	1.800	31	-0.08	0.94	4
MULHALL	6110	5	*****	0	*****	****	0	****	0	******	******	******	******	3.040	31	*****	1.63	4
NORMAN NWS	6386	5	42.0	31	*****	70	17	15	25	713	******	0	******	2.285	31	*****	1.04	3
OKEMAH	6638	5	44.7	31	2.4	71	2	17	25	629	-75	0	0	3.151	31	0.68	1.02	4
OKLAHOMA CTY	F.6659	5	*****	0	*****	****	0	****	0	******	******	******	******	2.110	31	*****	1.06	23
OKLAHOMA CTY	6661	5	41.0	31	1.5	68	17	13	25	745	-35	0	0	2.002	31	0.11	1.60	23
PIEDMONT	7068	5	*****	0	*****	****	0	****	0	******	******	******	******	2.070	31	*****	1.15	4
PRAGUE	7264	5	*****	0	*****	****	0	****	0	******	******	******	******	2.370	31	*****	0.99	4
SEMINOLE	8042	5	41.6	31	1.0	72	18	16	27	724	-34	0	0	1.700	31	-0.60	0.65	24
SHAWNEE	8110	5	*****	0	*****	****	0	****	0	******	******	******	******	2.672	31	*****	1.15	4
STILLWATER	8501	5	40.7	30	2.2	68	16	12	25	730	-93	0	0	3.201	31	1.46	1.89	4
STELLA	8479	5	*****	0	*****	****	0	****	0	******	******	******	******	2.321	31	*****	1.00	4
TECUMSEH	8751	5	*****	0	*****	****	0	****	0	******	******	******	******	2.320	31	*****	1.00	22
UNION CITY	9086	5	*****	0	*****	****	0	****	0	******	******	******	******	2.383	31	*****	1.11	4
TROUSDALE	8960	5	43.2	28	*****	74	18	18	6	611	******	0	******	3.460	31	*****	1.67	4
WEWOKA	9575	5	*****	0	*****	****	0	****	0	******	******	******	******	3.730	31	*****	1.55	3

DECEMBER 2002 SUMMARY FOR EAST CENTRAL CLIMATE DIVISION (CD6)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ASHLAND	364	6	*****	0	*****	****	0	****	0	******	******	******	******	5.220	31	*****	1.44	4
CALVIN	1391	6	*****	0	*****	****	0	****	0	******	******	******	******	3.300	31	*****	1.50	28
CHECOTAH	1711	6	45.2	30	*****	70	17	19	25	596	******	1	******	4.262	31	*****	1.43	31
CLAYTON	1858	6	*****	0	*****	****	0	****	0	******	******	******	******	6.310	31	*****	1.97	31
DEWAR	2485	6	*****	0	*****	****	0	****	0	******	******	******	******	3.902	31	*****	0.95	13
DUSTIN	2690	6	*****	0	*****	****	0	****	0	******	******	******	******	5.050	31	*****	1.50	23
HASKELL	3956	6	*****	0	*****	****	0	****	0	******	******	******	******	2.560	31	*****	1.40	4
HOLDENVILLE	4235	6	43.9	29	*****	71	17	14	24	613	******	0	******	3.942	31	1.50	1.35	3
LAKE EUFAULA	4975	6	41.9	24	*****	66	31	18	25	555	******	0	******	3.441	31	0.49	1.21	31
LYONS	5437	6	*****	0	*****	****	0	****	0	******	******	******	******	5.021	31	*****	1.41	31
MCALESTER	5664	6	44.0	31	1.9	72	17	17	25	650	-61	0	0	5.183	31	2.19	1.52	23
MCCURTAIN	5693	6	45.4	31	2.6	71	17	18	6	609	-81	0	0	7.134	31	3.81	3.30	31
MUSKOGEE	6130	6	42.1	30	2.5	71	17	10	25	691	-98	3	3	4.374	31	1.20	1.38	30
OKTAHA	6678	6	*****	0	*****	****	0	****	0	******	******	******	******	3.921	31	*****	1.13	4
SALLISAW	7862	6	42.9	31	3.0	71	18	18	25	685	-94	0	0	5.060	31	1.88	1.71	31
SCIPIO	7979	6	*****	0	*****	****	0	****	0	******	******	******	******	5.140	31	*****	1.45	24
SHORT	8170	6	*****	0	*****	****	0	****	0	******	******	******	******	5.300	31	*****	1.32	31
WEBBERS FALL	9445	6	41.6	31	1.6	72	18	14	26	727	-49	0	0	4.762	31	1.59	1.20	31
WETUMKA	9571	6	*****	0	*****	****	0	****	0	******	******	******	******	3.032	31	*****	1.12	4

DECEMBER 2002 SUMMARY FOR SOUTHWEST CLIMATE DIVISION (CD7)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ALTUS DAM	184	7	42.1	31	2.4	75	18	19	28	711	-75	0	0	2.381	31	1.18	1.09	4
ANADARKO	224	7	39.0	31	1.2	69	18	16	25	808	-38	0	0	2.011	31	0.34	0.80	4
APACHE	260	7	*****	0	*****	****	0	****	0	******	******	******	******	2.650	31	*****	1.40	4
CHATTANOOGA	1706	7	40.7	31	0.9	74	18	22	26	754	-27	0	0	3.120	31	1.52	1.23	4
DUNCAN 11 W	2668	7	*****	0	*****	****	0	****	0	******	******	******	******	3.480	31	*****	1.58	4
HEADRICK	3998	7	*****	0	*****	****	0	****	0	******	******	******	******	3.200	31	*****	1.60	23
HOBART	4204	7	40.2	30	0.8	67	2	18	25	745	-49	0	0	1.473	31	0.25	1.40	24
HOLLIS	4249	7	41.6	31	1.8	76	17	19	27	727	-55	0	0	2.190	31	1.23	1.02	4
LAWTON	5063	7	38.4	17	*****	65	16	16	29	453	******	0	******	3.070	31	1.39	1.25	23
LOOKEBA	5329	7	*****	0	*****	****	0	****	0	******	******	******	******	1.420	31	*****	0.78	24
ROOSEVELT	7727	7	*****	0	*****	****	0	****	0	******	******	******	******	2.610	31	*****	1.13	4
SEDAN	8016	7	*****	0	*****	****	0	****	0	******	******	******	******	2.490	31	*****	1.05	5
SNYDER	8299	7	*****	0	*****	****	0	****	0	******	******	******	******	2.530	31	*****	0.95	4
MANGUM	5509	7	40.2	31	1.6	76	18	19	26	768	-53	0	0	0.752	31	-0.32	0.75	4
RANDLETT	7403	7	*****	0	*****	****	0	****	0	******	******	******	******	1.840	31	*****	0.57	24
VINSON	9212	7	*****	0	*****	****	0	****	0	******	******	******	******	1.711	31	*****	1.00	4
WALTERS	9278	7	41.9	30	1.5	77	18	18	26	693	-71	0	0	3.210	31	1.58	1.45	24
WICHITA MT	9629	7	41.3	27	*****	74	18	16	27	641	******	0	******	2.490	31	0.89	1.28	23
WILLOW	9668	7	*****	0	*****	****	0	****	0	******	******	******	******	1.814	31	*****	0.79	4

DECEMBER 2002 SUMMARY FOR SOUTH CENTRAL CLIMATE DIVISION (CD8)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ADA	17	8	43.3	31	1.8	72	17	16	25	674	-55	0	0	5.621	31	3.22	1.98	31
ALLEN	147	8	*****	0	*****	****	0	****	0	******	******	******	******	2.770	31	*****	1.60	23
ARDMORE	292	8	45.6	31	2.4	71	17	21	25	602	-74	0	0	3.291	31	0.98	1.20	3
ATOKA DAM	394	8	43.1	31	0.7	72	18	15	25	680	-23	2	2	5.300	31	2.36	1.16	4
BOKCHITO	917	8	*****	0	*****	****	0	****	0	******	******	******	******	8.080	31	*****	2.50	24
CANEY	1437	8	*****	0	*****	****	0	****	0	******	******	******	******	4.700	31	*****	1.20	31
CENTRAHOMA	1648	8	43.0	31	*****	73	18	17	25	682	******	0	******	4.950	31	*****	1.45	4
CHICKASAW	1745	8	42.2	29	*****	71	18	14	25	663	******	0	******	6.010	31	3.56	1.78	31
COLEMAN	2011	8	44.1	30	*****	72	17	17	24	627	******	0	******	4.670	31	*****	1.00	4
DAISY	2354	8	*****	0	*****	****	0	****	0	******	******	******	******	4.202	31	*****	1.47	24
DUNCAN	2660	8	42.4	25	*****	76	18	19	26	565	******	0	******	3.941	31	1.98	1.43	23
ELMORE CITY	2872	8	*****	0	*****	****	0	****	0	******	******	******	******	4.070	31	*****	1.90	4
GRADY	3688	8	*****	0	*****	****	0	****	0	******	******	******	******	3.530	31	*****	1.50	30
HEALDTON	4001	8	43.2	29	*****	77	18	19	25	631	******	0	******	3.880	31	1.65	1.03	31
KETCHUM RAN	4780	8	*****	0	*****	****	0	****	0	******	******	******	******	3.860	31	*****	1.60	23
KINGSTON	4865	8	*****	0	*****	****	0	****	0	******	******	******	******	3.710	31	*****	1.01	24
LINDSAY	5216	8	41.8	31	2.2	74	17	18	25	718	-70	0	0	2.640	31	0.65	1.43	3
LOCO	5247	8	*****	0	*****	****	0	****	0	******	******	******	******	3.600	31	*****	1.10	23
MADILL	5468	8	43.4	27	*****	71	19	22	26	582	******	0	******	4.580	30	*****	1.10	4
MARIETTA 5 SW	5563	8	42.6	31	-0.1	71	18	16	25	694	2	0	0	3.710	31	1.33	0.92	4
MARLOW	5581	8	44.5	31	*****	76	17	15	25	634	******	0	******	3.023	31	*****	1.35	4
MCGEE CREEK	5713	8	43.9	31	1.7	72	18	19	25	654	-54	0	0	5.461	31	1.72	1.40	24
PAULS VALLEY	6926	8	41.9	31	1.6	77	18	17	25	717	-51	0	0	3.741	31	1.57	1.57	4
PONTOTOC	7214	8	*****	0	*****	****	0	****	0	******	******	******	******	5.160	31	*****	1.54	3
TISHOMINGO	8884	8	*****	0	*****	****	0	****	0	******	******	******	******	3.430	31	*****	1.44	24
TUSSY	9032	8	*****	0	*****	****	0	****	0	******	******	******	******	5.034	31	*****	1.67	4
WAURIKA	9395	8	45.0	31	0.8	78	17	17	25	621	-24	0	0	2.460	31	0.50	0.71	4

DECEMBER 2002 SUMMARY FOR SOUTHEAST CLIMATE DIVISION (CD9)

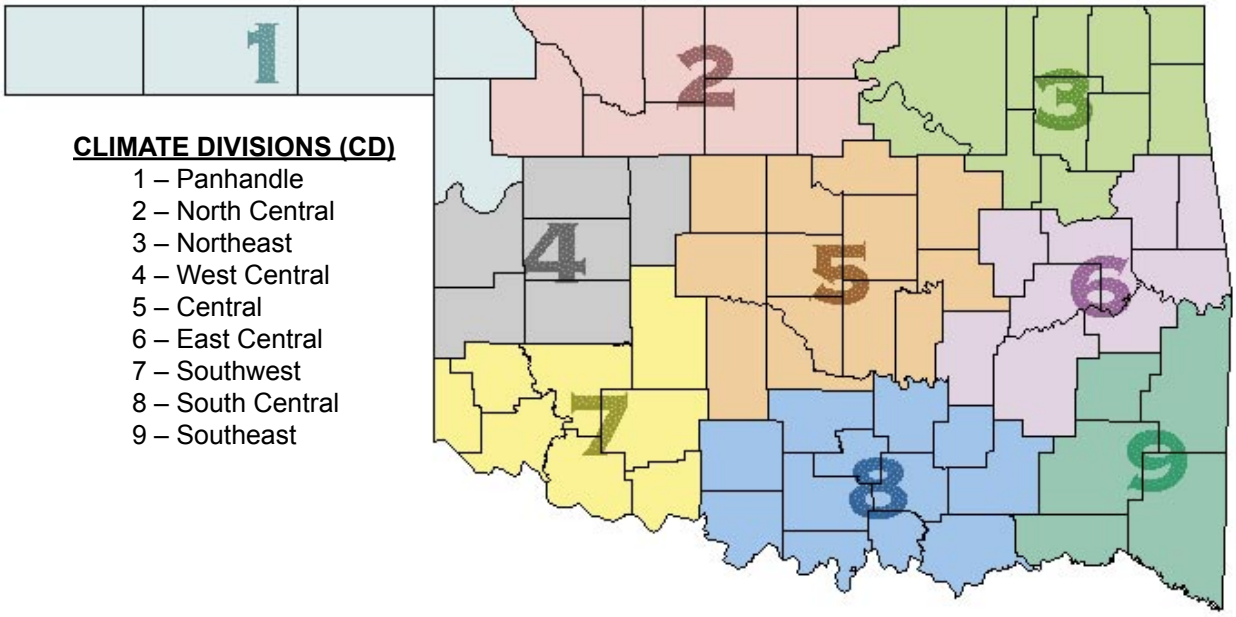
NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ANTLERS	256	9	43.2	30	0.4	72	18	18	25	657	-32	2	2	6.620	31	3.12	1.86	24
BATTIEST	567	9	40.6	31	0.3	70	17	14	24	758	-11	0	0	6.131	31	1.27	1.40	30
BENGAL	670	9	*****	0	*****	****	0	****	0	******	******	******	******	6.240	31	*****	1.79	24
BROKEN BOW	1162	9	*****	0	*****	****	0	****	0	******	******	******	******	6.060	31	*****	1.60	31
CARTER TWR	1544	9	*****	0	*****	****	0	****	0	******	******	******	******	6.850	31	*****	1.73	31
FANSHAWE	3065	9	*****	0	*****	****	0	****	0	******	******	******	******	6.470	31	*****	1.80	1
HUGO	4384	9	46.0	30	3.1	74	17	20	25	574	-114	5	5	4.395	31	0.42	1.32	3
IDABEL	4451	9	44.6	31	1.2	74	17	22	26	634	-36	2	2	7.360	31	2.76	3.01	31
PAGE	6842	9	43.7	25	*****	69	18	14	25	533	******	1	******	5.390	31	*****	2.12	31
SMITHVILLE	8285	9	40.4	29	*****	71	18	17	28	714	******	1	******	4.712	31	-0.32	1.43	4
SPIRO	8416	9	*****	0	*****	****	0	****	0	******	******	******	******	5.540	31	*****	1.51	4
TUSKAHOMA	9023	9	45.1	31	1.9	72	17	16	25	617	-61	2	2	6.520	31	3.19	2.01	24
VALLIANT	9118	9	*****	0	*****	****	0	****	0	******	******	******	******	5.770	31	*****	1.26	31
WILBURTON	9634	9	43.4	31	1.1	71	17	16	25	669	-35	0	0	6.110	31	2.41	1.60	30
WISTER	9724	9	44.6	31	*****	71	19	18	7	632	******	0	******	6.110	31	*****	1.71	4

DECEMBER 2002 CLIMATE DIVISION SUMMARY

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
PANHANDLE		1	34.9	7	-0.4	71	15	-4	26	932	13	0	0	1.290	11	0.54	1.51	4
NORTH CENTRAL		2	37.0	12	1.4	71	17	4	25	862	-48	0	0	1.550	21	0.24	1.25	4
NORTHEAST		3	41.1	12	2.4	71	2	3	25	728	-88	0	0	2.910	21	0.42	1.70	30
WEST CENTRAL		4	38.1	9	0.9	72	18	3	25	831	-30	0	0	1.940	17	0.74	1.85	4
CENTRAL		5	41.2	13	2.0	74	18	9	25	730	-71	0	0	2.530	31	0.61	1.89	4
EAST CENTRAL		6	43.5	6	2.9	72	18	10	25	659	-98	1	1	4.570	19	1.54	3.30	31
SOUTHWEST		7	40.8	7	1.4	77	18	16	27	743	-51	0	0	2.340	19	0.94	1.60	23
SOUTH CENTRAL		8	43.5	11	1.7	78	17	14	25	664	-56	0	0	4.260	26	1.83	2.50	24
SOUTHEAST		9	43.9	7	1.8	74	17	14	25	648	-62	1	1	6.020	15	1.88	3.01	31

Note: The above climate division summary contains similar information to the preceding tables but are the averages or extremes over all of the stations reporting in each climate division.

CLIMATE DIVISION MAP



CLIMATE DIVISIONS (CD)

1 – Panhandle
2 – North Central
3 – Northeast
4 – West Central
5 – Central
6 – East Central
7 – Southwest
8 – South Central
9 – Southeast

EXPLANATION OF TABLES

The tables appearing on the preceding pages contain the following information for each station or climate division:

Station Name: The name of the observing site.

Station Identification Number: These numbers usually are assigned by the National Climatic Data Center.

Climate Division: See the figure above.

Number of Temperature Observations: These numbers are the actual number of temperature reports recorded at the station during the current month. Missing observations may result in artificially high or low mean monthly temperatures.

Deviation from Normal: The deviation of the observed mean monthly temperature from the monthly station normal. A positive value indicates the month was warmer than normal. A negative value indicates the month was cooler than normal. Normal monthly temperatures may be calculated by subtracting the deviation from the observed temperature.

Maximum Daily Temperature: The maximum daily maximum temperature observed during the current month and year and the day on which it occurred.

Minimum Daily Temperature: The minimum daily minimum temperature observed during the current month and year and the day on which it occurred.

Heating Degree Days: HDD are calculated each day of the month for which there is a temperature report and the average temperature for the day is less than 65 degrees. Daily values are summed to arrive at a monthly total. HDD are a qualitative measure of how much heat was required to maintain a comfortable indoor temperature. Missing observations may result in an artificially high or low value. See the equation to the right for the HDD calculation.

Heating Degree Days Calculation

NumDays

$$\sum_{i=1} 65-((TMAX_i + TMIN_i) / 2)$$

Where NumDays = the number of days in the month of interest (e.g., NumDays = 31 for January)

Deviation from Normal Heating Degree Days: The difference between the actual HDD and the normal HDD for the month. A positive value indicates higher than normal heating requirements for the month as a whole. A negative value indicates lower than normal heating requirements for the month as a whole. Normal HDD may be calculated by subtracting the deviation from observed HDD.

Cooling Degree Days: CDD are calculated each day of the month for which there is a temperature report and the average temperature for the day exceeds 65 degrees. Daily values are summed to give a monthly total. CDD are a proxy measure of how much cooling was required to maintain a comfortable indoor temperature. Missing observations may result in an artificially high or low value. See theequation to the right for the CDD calculation.

Cooling Degree Days Calculation

NumDays

$$\sum_{i=1} ((TMAX_i + TMIN_i) / 2) - 65$$

Where NumDays = the number of days in the month of interest (e.g., NumDays = 30 for June)

Deviation from Normal Cooling Degree Days: The difference between the actual HDD and the normal HDD for the month. A positive value indicates higher than normal cooling requirements for the month as a whole. A negative value indicates lower than normal cooling requirements for the month as a whole. Normal cooling degree days may be found by subtracting the deviation from the observed cooling degree days.

Total Precipitation: Often incorrectly referred to as a mean precipitation, this value is the sum of all precipitation reported during the month at a station. If snow occurred, it is to be melted and its water equivalent recorded.

Number of Precipitation Observations: The number of days a rain or no rain observation was reported. Missing observations frequently result in artificially low total precipitation values.

Deviation from Normal Precipitation: The difference between the actual rainfall and the normal rainfall for the month. A positive value indicates more rain than normal was received. A negative value indicates less than was expected rainfall was received. Normal rainfall may be calculated by subtracting the deviation from the monthly total.

Maximum 24-Hour Report and Day: The maximum amount of precipitation recorded during the station's 24-hour observation period for the current month and year and the day on which it was recorded.

MESONET MONTHLY SUMMARY FOR DECEMBER 2002

NAME	MEAN TEMP	MAX TEMP	MAX DAY	MIN TEMP	MIN DAY	HDD	CDD	TOT PPT	MAX 24-HR	MAX DAY
PANHANDLE										
Arnett	37.1	68	14	6	25	866	0	1.26	.43	6
Beaver	34.2	67	14	0	25	955	0	.76	.22	6
Boise City	31.7	68	15	-2	26	1031	0	.73	.18	28
Buffalo	36.6	68	14	12	24	****	****	.62	.14	6
NORTH CENTRAL										
Blackwell	36.9	66	15	7	25	870	0	1.74	.48	12
Breckenridge	37.5	68	17	12	24	852	0	1.56	.28	3
Cherokee	36.6	68	17	7	6	880	0	1.18	.36	8
Fairview	38.5	67	17	14	5	820	0	1.83	.49	28
Freedom	36.8	67	15	7	25	876	0	.90	.25	8
Lahoma	37.1	68	17	13	26	864	0	1.25	.23	8
May Ranch	37.3	67	17	12	25	860	0	.72	.23	6
NORTHEAST										
Bixby	41.3	71	2	12	25	733	0	3.84	1.38	3
Burbank	*****	***	***	***	***	****	****	*****	*****	***
Copan	39.1	66	2	8	26	802	0	1.77	.44	7
Foraker	38.2	68	15	11	25	832	0	1.71	.48	7
Jay	41.0	70	18	12	5	****	****	4.12	.94	3
Miami	38.4	68	18	1	25	826	0	2.17	.42	12
Nowata	38.2	69	2	1	25	832	0	2.65	.55	3
Pawnee	40.5	68	15	10	26	****	****	2.48	.75	3
WEST CENTRAL										
Bessie	39.5	70	17	12	25	789	0	2.41	.64	3
Butler	38.3	70	17	8	25	829	0	1.91	.54	6
Camargo	37.0	69	14	8	25	868	0	1.58	.55	8
Cheyenne	39.5	69	17	14	25	792	0	1.38	.92	6
Erick	38.8	71	17	8	25	813	0	1.31	.49	3
CENTRAL										
Bowlegs	43.2	72	17	16	25	677	0	3.64	1.43	3
Bristow	40.9	72	17	11	25	746	0	2.88	1.11	3
Chandler	42.6	72	17	14	25	696	0	2.90	1.15	3
Chickasha	41.2	70	17	16	25	738	0	2.35	1.29	3
El Reno	39.2	70	17	9	25	801	0	2.50	.81	3
Guthrie	41.2	67	17	12	25	739	0	2.59	.95	3
Kingfisher	38.9	68	17	10	25	809	0	2.14	.52	23
Marena	40.5	68	15	11	25	759	0	2.00	1.15	3
Marshall	39.4	69	17	11	24	****	****	2.65	.89	3
Minco	41.0	70	2	17	25	744	0	2.52	1.12	23
EAST CENTRAL										
Calvin	43.2	72	17	17	25	675	0	5.12	1.42	3
Cookson	41.8	69	17	11	25	718	0	5.82	2.28	30
Eufaula	44.5	70	17	17	25	636	0	5.06	1.58	30
Haskell	42.0	71	17	14	25	713	0	3.76	1.01	3
McAlester	44.0	72	17	16	25	652	0	5.43	1.42	3
Okmulgee	42.8	72	17	15	25	687	0	3.60	.94	3
Sallisaw	42.5	72	17	17	6	696	0	5.04	1.46	30
SOUTHWEST										
Altus	42.4	76	17	24	25	701	0	2.70	1.52	23
Fort Cobb	41.1	71	17	16	25	741	0	2.52	.90	23
Hinton	39.6	69	17	13	24	****	****	2.05	.50	28
Hobart	40.7	74	17	21	5	****	****	2.67	1.40	23
Hollis	41.2	75	17	18	27	739	0	*****	*****	***
Mangum	40.2	76	17	15	27	770	0	*****	*****	***
SOUTH CENTRAL										
Ada	43.9	72	17	17	25	655	0	5.72	1.98	30
Ardmore	44.8	71	17	19	25	626	0	5.22	1.61	23
Burneyville	44.3	73	17	17	25	642	0	3.69	1.04	30
Byars	44.1	73	17	18	25	648	0	3.88	1.57	3
Centrahoma	43.1	72	17	15	25	678	0	5.18	1.64	23
Durant	45.9	72	17	21	6	592	0	4.77	1.85	23
Ketchum Ranch	43.1	77	17	17	25	678	0	4.86	2.05	3
Lane	44.1	71	17	19	25	648	0	5.02	1.82	23
Madill	44.8	72	17	18	25	627	0	4.19	1.20	23
SOUTHEAST										
Antlers	42.8	72	17	14	25	688	0	5.61	1.86	23
Clayton	44.6	73	17	18	6	632	0	6.45	2.18	23
Cloudy	44.0	71	17	18	25	650	0	5.66	1.42	30
Hugo	45.3	73	17	20	25	611	0	5.70	1.50	23
Idabel	45.1	73	17	20	25	617	0	5.88	1.77	23
Goodwell	34.0	68	15	1	25	962	0	.89	.18	8
Hooker	32.4	67	15	-1	25	1011	0	.55	.19	28
Kenton	31.5	63	1	-6	26	1037	0	1.17	.20	28
Slapout	36.5	67	14	10	25	882	0	.87	.37	6
Medford	36.6	68	17	9	25	882	0	.88	.20	8
Newkirk	37.8	67	15	9	25	842	0	1.37	.32	7
Red Rock	38.9	67	15	9	25	809	0	2.32	.58	3
Seiling	36.8	68	14	5	25	874	0	1.86	.43	6
Woodward	38.5	68	14	10	25	821	0	.95	.50	6
Alva	37.0	69	17	13	5	869	0	.65	.20	5
Pryor	40.1	69	18	5	26	****	****	3.59	1.09	3
Skiatook	41.2	68	2	12	25	739	0	2.71	.60	3
Vinita	38.4	68	18	1	26	****	****	2.68	.53	3
Wynona	39.4	69	15	8	26	793	0	2.10	.51	7
Porter	43.1	70	17	13	25	680	0	3.79	1.09	3
Inola	40.7	71	18	6	25	753	0	3.55	1.25	3
Claremore	42.2	69	18	14	25	707	0	3.50	1.17	3
Putnam	37.5	65	17	12	25	851	0	1.47	.70	6
Retrop	39.9	72	17	12	25	777	0	2.20	.55	3
Watonga	38.5	66	17	13	25	821	0	1.52	.68	6
Weatherford	38.5	67	17	13	24	****	****	1.97	.49	3
Oilton	41.1	70	17	12	26	****	****	3.30	1.44	3
Okemah	42.7	70	2	15	25	691	0	3.21	.96	3
Perkins	40.7	67	2	11	25	754	0	2.57	.97	3
Shawnee	43.1	71	17	17	25	679	0	2.50	.98	3
Spencer	*****	***	***	***	***	****	****	*****	*****	***
Stillwater	40.2	68	17	10	25	770	0	2.79	1.27	3
Washington	42.6	73	17	18	25	****	****	2.53	1.33	3
Ninnekah	41.8	71	17	15	25	718	0	2.50	1.39	3
Acme	42.2	74	17	15	25	708	0	2.54	1.30	3
Norman	42.6	71	17	16	25	694	0	2.32	1.06	3
Stigler	43.2	72	17	17	25	676	0	5.09	1.34	23
Stuart	44.4	71	17	19	6	639	0	*****	*****	***
Tahlequah	41.6	69	17	7	25	727	0	3.99	1.21	3
Webbers Falls	43.3	72	17	18	25	671	0	4.28	1.09	23
Westville	41.4	68	17	11	25	733	0	5.12	1.18	3
Hectorville	43.4	72	17	14	25	670	0	3.67	1.26	3
Medicine Park	43.2	75	17	21	27	675	0	2.70	1.55	23
Tipton	42.6	76	17	22	27	695	0	2.86	1.43	23
Walters	43.0	78	17	18	25	681	0	3.13	1.30	3
Apache	41.3	70	17	18	25	736	0	2.34	1.07	23
Grandfield	43.6	74	17	25	22	665	0	3.00	1.34	3
Pauls Valley	44.2	78	17	18	25	646	0	3.46	1.40	3
Ringling	43.7	76	17	18	25	660	0	3.27	1.08	23
Sulphur	42.9	71	17	17	6	684	0	6.01	2.06	30
Tishomingo	43.3	71	17	18	25	672	0	4.69	1.80	23
Waurika	44.0	78	17	16	25	****	****	2.89	.96	23
Vanoss	43.7	73	17	17	25	659	0	4.42	1.47	3
Bee	44.0	68	17	19	25	652	0	4.01	1.43	23
Newport	44.8	74	17	19	25	627	0	4.73	1.53	23
Mt Herman	43.7	70	17	17	25	661	0	5.76	1.77	30
Talihina	43.8	72	17	16	25	659	1	6.33	1.80	30
Wilburton	42.8	72	17	15	25	688	0	6.41	1.77	23
Wister	41.8	72	17	16	6	719	0	5.74	1.31	3

EXTREME VALUES OF TEMPERATURE AND PRECIPITATION IN EACH CLIMATE DIVISION DECEMBER 2002

MAX				MIN			24-HOUR			MONTHLY		
CD	TEMP	DATE	LOCATION	TEMP	DATE	LOCATION	PRECIP	DATE	LOCATION	PRECIP	LOCATION
1	71	15	LAVERNE	-4	26	BOISE CITY	1.51	4	ARNETT	2.19	ARNETT
2	71	17	WAYNOKA	4	25	FT SUPPLY	1.25	4	MORRISON	2.98	BLACKWELL 2E
3	71	2	BIXBY	3	25	RALSTON	1.70	3	BIXBY	4.68	UPPER SPAV
	71	17	BIXBY				1.70	30	BIXBY		
	71	2	TULSA								
4	72	18	CORDELL	3	25	TALOGA	1.85	4	VICI	3.06	WATONGA
	72	18	ERICK								
5	74	18	TROUSDALE	9	25	BRISTOW	1.89	4	STILLWATER	4.44	KONAWA
6	72	17	MCALESTER	10	25	MUSKOGEE	3.30	31	MCCURTAIN	7.13	MCCURTAIN
	72	18	WEBBERS FALL								
7	77	18	WALTERS	16	25	ANADARKO	1.60	9	HEADRICK	3.48	DUNCAN 11 W
				16	29	LAWTON	1.60	23	HEADRICK		
				16	27	WICHITA MT					
8	78	17	WAURIKA	14	25	CHICKASAW	2.50	24	BOKCHITO	8.08	BOKCHITO
9	74	17	HUGO	14	24	BATTIEST	3.01	31	IDABEL	7.36	IDABEL
	74	17	IDABEL	14	25	PAGE					

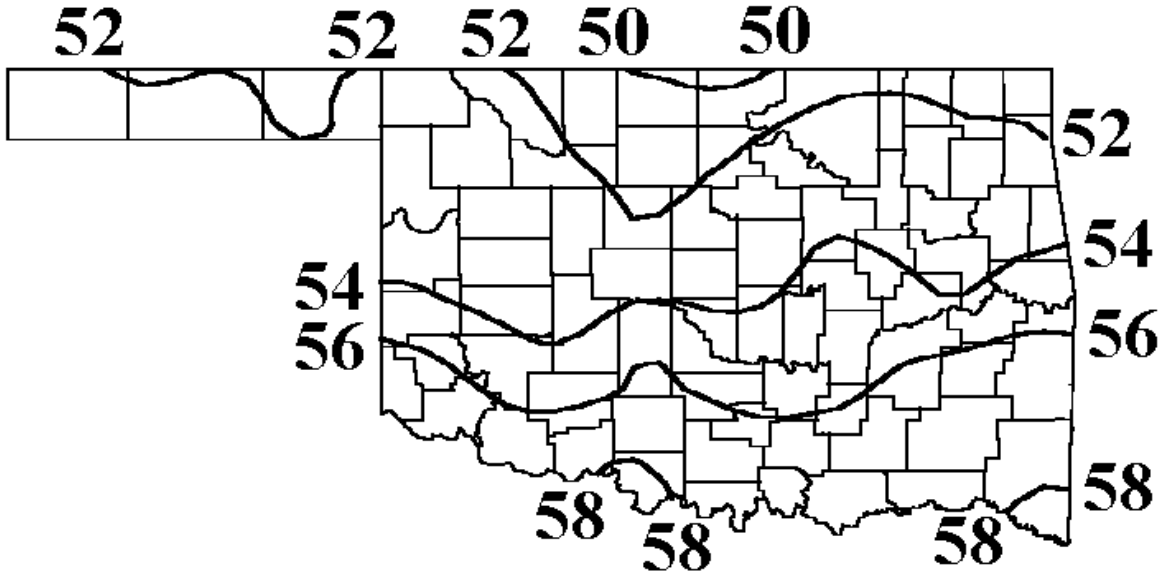
TABLE OF 2001/2002 COMPARISONS

	DECEMBER Temperature (F)		DECEMBER Precipitation (in.)	
Station	**2001**	**2002**	**2001**	**2002**
Arnett	39.5	35.8	0.20	2.19
Enid	42.3	37.9	0.15	1.15
Tulsa	43.5	42.7	2.26	2.75
Elk City	43.0	38.5	0.47	1.81
Oklahoma City	42.2	41.0	0.91	2.00
McAlester	44.3	44.0	5.25	5.18
Altus Irr Station	41.6	42.1	0.20	2.38
Ardmore	46.2	45.6	2.79	3.29
Idabel	50.8	44.6	7.69	7.36

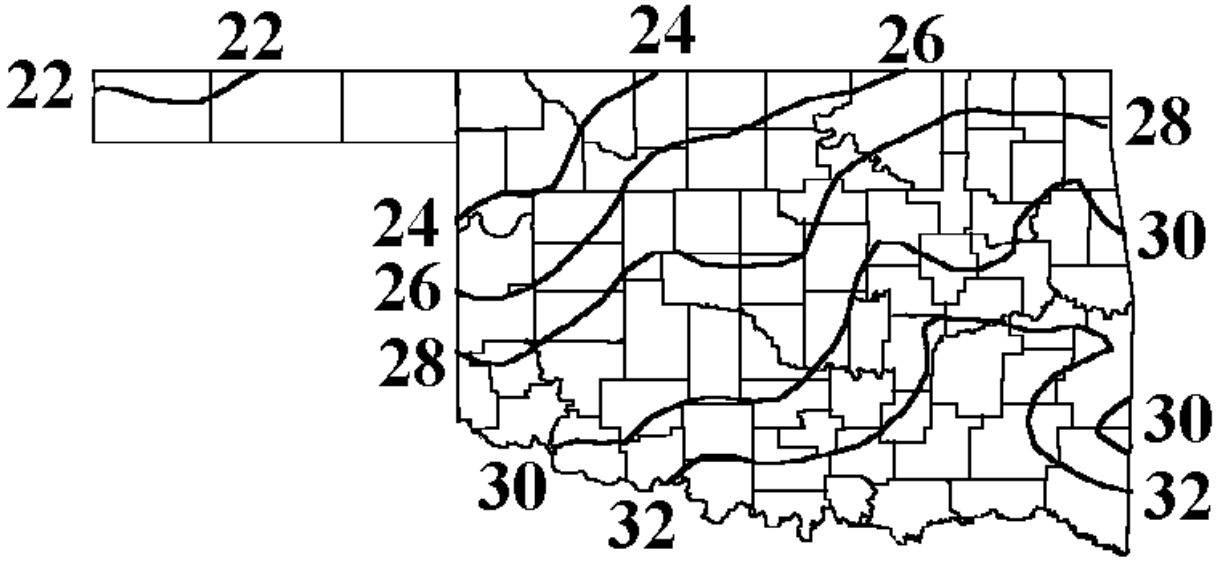
DECEMBER 2002 STATEWIDE EXTREMES

VARIABLE	STATION	DIVISION	OBSERVATION	DATE
Minimum temperature (F)	Waurika	8	78	17
Maximum temperature (F)	Boise City	1	- 4	26
Maximum 24-hour Precipitation	Bokchito	8	8.08	24

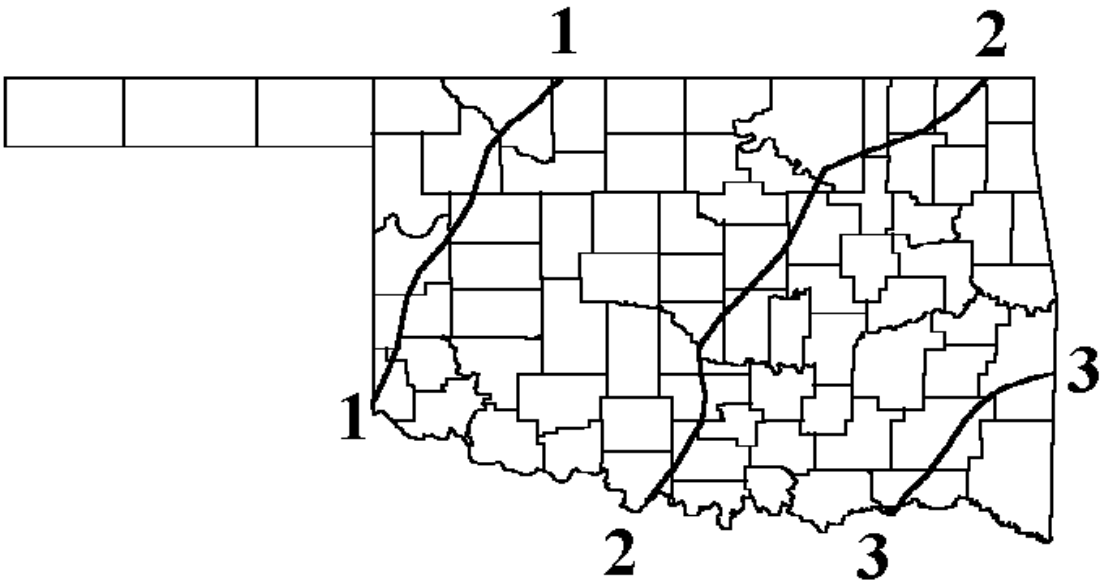
FEBRUARY NORMAL DAILY MAXIMUM TEMPERATURE (ºF)



FEBRUARY NORMAL DAILY MINIMUM TEMPERATURE (ºF)



FEBRUARY NORMAL MONTHLY PRECIPITATION (INCHES)



FEBRUARY TORNADO STATISTICS

The most tornadoes reported in **FEBRUARY** for Oklahoma was **(6)** in **1975**.

The average number of tornadoes in **FEBRUARY** for Oklahoma is **(0.8)**.

OUTLOOK FOR FEBRUARY 2003 THROUGH APRIL 2003

BASED ON SEASONAL OUTLOOK PROVIDED BY THE CLIMATE PREDICTION CENTER

Temperature: Below Normal Temperature Statewide

Precipitation: Above Normal Precipitation Statewide

OKLAHOMA CITY CLIMATE CALENDAR

FEBRUARY

The data on this calendar are for Oklahoma City, Oklahoma.
Normal values are calculated for the period 1961-1990.
Temperature extremes are for the period 1905-2001.
Precipitation extremes are for the period 1888-2001.

Day	Avg. Temp.	Ave. High	2003	Record High	Year	Lowest Max	Year	Ave. Low	2003	Highest Min.	Year	Record Low	Year	Avg. Precip.	2003	Greatest Precip.	Year
1	37	48		90	1911	14	1918	27		59	1986	-2	1951	0.04		0.71	1990
2	38	49		77	1995	10	1905	27		58	1986	-4	1895	0.04		0.88	1943
3	38	49		78	1962	7	1905	27		58	1986	0	1996	0.04		1.13	1960
4	38	49		77	1962	15	1989	27		58	1927	-3	1996	0.04		1.32	1964
5	38	49		77	1942	16	1982	27		57	1938	3	1989	0.04		1.05	1987
6	39	50		73	1904	16	1905	27		54	1931	3	1895	0.05		1.38	1892
7	39	50		76	1937	6	1933	28		50	1894	-8	1895	0.05		0.84	1980
8	39	50		76	1999	12	1929	28		53	1966	-5	1933	0.05		0.62	1966
9	39	50		84	1932	16	1899	28		51	1932	-3	1979	0.05		2.10	1898
10	40	51		79	1922	16	1933	28		52	1999	4	1929	0.05		0.50	1953
11	40	51		82	1962	15	1899	29		57	1938	-12	1899	0.05		1.12	1977
12	40	51		84	1962	2	1905	29		57	1962	-17	1899	0.05		2.21	1978
13	40	52		82	1962	21	1905	29		54	1976	-11	1905	0.05		0.76	1908
14	41	52		81	1954	18	1951	29		55	1954	1	1936	0.05		0.89	1938
15	41	52		81	1954	17	1909	30		53	1976	7	1909	0.06		0.93	1938
16	41	52		81	1927	15	1903	30		63	1911	4	1903	0.06		2.15	1940
17	41	53		79	1991	17	1936	30		50	1926	5	1900	0.06		0.88	1961
18	42	53		78	1986	24	1936	30		53	1971	-1	1978	0.06		0.88	1946
19	42	53		83	1986	21	1929	31		54	1997	7	1903	0.06		0.69	1994
20	42	54		84	1981	25	1918	31		55	1894	9	1918	0.06		1.55	1997
21	43	54		82	1996	25	1911	31		58	1922	9	1939	0.06		1.63	1971
22	43	54		92	1996	24	1968	31		55	1985	11	1963	0.07		1.15	1985
23	43	55		88	1918	21	1914	32		52	1956	7	1910	0.07		1.09	2001
24	44	55		87	1918	19	1960	32		58	1930	7	1965	0.07		0.94	1952
25	44	55		84	1917	27	1960	32		56	1944	10	1960	0.07		0.74	1936
26	44	56		82	1996	21	1934	33		59	1981	10	1891	0.07		1.34	1903
27	44	56		83	1918	25	1962	33		56	1981	12	1962	0.07		1.32	1966
28	45	56		90	1904	19	1922	33		62	1904	7	1962	0.07		0.98	1990
29				81	1972	22	1960			58	1932	13	1960	0.07		0.42	1948
MONTH	**40.9**	**52.1**		**92**	**1996**	**2**	**1905**	**29.6**		**63**	**1911**	**-17**	**1899**	**1.56**		**2.21**	**1978**

DATA COURTESY OF NATIONAL WEATHER SERVICE – NORMAN
Temperatures are in degrees Fahrenheit; precipitation is in inches.

TULSA CLIMATE CALENDAR

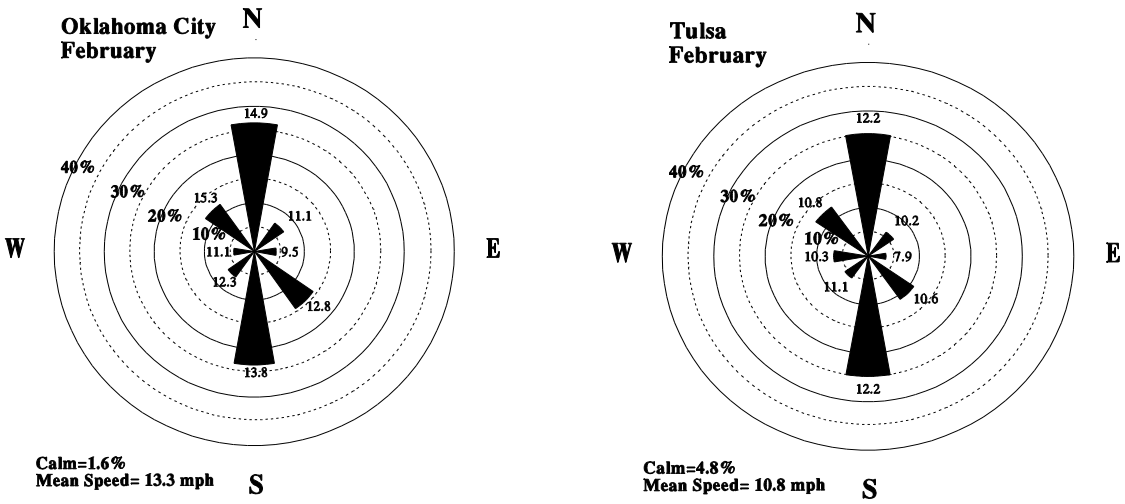
FEBRUARY

The data on this calendar are for Tulsa, Oklahoma.
Normal values are calculated for the period 1971-2000.
Temperature extremes are for the period 1905-2001.
Precipitation extremes are for the period 1888-2001.

Day	Avg. Temp.	Ave. High	2003	Record High	Year	Lowest Max	Year	Ave. Low	2003	Highest Min.	Year	Record Low	Year	Avg. Precip.	2003	Greatest Precip.	Year
1	38	49		90	1911	15	1951	28		53	1986	-7	1979	0.05		0.78	1923
2	39	49		77	1995	16	1917	28		56	1986	0	1917	0.05		0.69	1943
3	39	49		79	1934	8	1996	28		59	1986	-5	1996	0.05		0.53	1960
4	39	50		77	1962	11	1905	29		57	1927	-11	1996	0.06		2.27	1971
5	39	50		75	1942	16	1905	29		60	1938	4	1979	0.06		1.36	1964
6	40	50		73	1999	21	1989	29		59	1928	4	1985	0.06		0.64	1999
7	40	51		78	1909	27	1985	29		68	1927	0	1933	0.06		0.76	1980
8	40	51		75	1957	11	1933	29		61	2001	-5	1933	0.06		1.32	1944
9	40	51		82	1932	20	1994	30		55	1938	-3	1979	0.06		0.79	1908
10	41	52		81	1922	23	1986	30		63	1932	-3	1929	0.06		0.80	1905
11	41	52		77	1951	21	1981	30		54	1915	-3	1981	0.06		1.18	1977
12	41	52		86	1962	10	1905	30		57	1938	0	1905	0.06		1.78	1978
13	41	52		84	1962	18	1905	30		59	1938	-15	1905	0.07		0.70	1946
14	42	53		80	1910	23	1951	31		59	1954	-10	1905	0.07		1.01	1951
15	42	53		80	1976	17	1909	31		60	1976	3	1905	0.07		1.74	1938
16	42	53		78	1976	16	1979	31		51	1927	3	1920	0.07		1.03	1938
17	43	54		79	1907	18	1936	32		63	1911	9	1993	0.07		1.37	1961
18	43	54		78	1930	26	1978	32		60	1971	2	1936	0.07		1.35	1974
19	43	54		77	1981	24	1929	32		54	1997	9	1978	0.08		1.31	1955
20	44	55		83	1981	21	1918	32		55	1997	9	1918	0.08		1.94	1997
21	44	55		82	1996	28	1968	33		55	1922	7	1939	0.08		1.43	1913
22	44	55		90	1996	28	1968	33		57	1985	1	1963	0.08		2.99	1985
23	44	55		81	1982	15	1910	33		55	2000	10	1910	0.08		1.47	2001
24	45	56		85	1918	24	1965	34		64	1930	8	1965	0.08		0.86	1952
25	45	56		82	1917	31	1960	34		60	1944	10	1965	0.09		0.94	1908
26	45	56		79	1996	20	1934	34		61	1996	11	1960	0.09		1.25	1984
27	45	56		81	1976	23	1962	34		59	1981	13	1962	0.09		1.12	1950
28	46	57		82	1972	22	1962	35		53	1976	6	1962	0.09		2.00	1987
29	46	57		82	1972	21	1960	35		57	1972	15	1960	0.09		0.20	1948
MONTH	**42.1**	**53.00**		**90**	**1996**	**8**	**1996**	**31.21**		**68**	**1927**	**-15**	**1905**	**0.07**		**2.99**	**1985**

DATA COURTESY OF NATIONAL WEATHER SERVICE – TULSA
Temperatures are in degrees Fahrenheit; precipitation is in inches.

FEBRUARY WIND ROSES



February Wind Roses for Oklahoma City and Tulsa. The frequencey (percent) of winds from each direction is represented by length of its bar. The numbers at the ends of the bars indicate the average wind speed from that directon in miles per hour.

FEBRUARY SUNRISE/SUNSET TIMES FOR 2003

ALL TIMES ARE CENTRAL STANDARD TIME

OKLAHOMA CITY

DATE	SUNRISE	SUNSET
2/1/03	7:30 AM	5:58 PM
2/2/03	7:29 AM	5:59 PM
2/3/03	7:28 AM	6:00 PM
2/4/03	7:28 AM	6:01 PM
2/5/03	7:27 AM	6:02 PM
2/6/03	7:26 AM	6:03 PM
2/7/03	7:25 AM	6:04 PM
2/8/03	7:24 AM	6:05 PM
2/9/03	7:23 AM	6:06 PM
2/10/03	7:22 AM	6:07 PM
2/11/03	7:21 AM	6:08 PM
2/12/03	7:20 AM	6:09 PM
2/13/03	7:19 AM	6:10 PM
2/14/03	7:18 AM	6:11 PM
2/15/03	7:17 AM	6:12 PM
2/16/03	7:16 AM	6:13 PM
2/17/03	7:15 AM	6:14 PM
2/18/03	7:14 AM	6:15 PM
2/19/03	7:13 AM	6:16 PM
2/20/03	7:11 AM	6:17 PM
2/21/03	7:10 AM	6:18 PM
2/22/03	7:09 AM	6:19 PM
2/23/03	7:08 AM	6:20 PM
2/24/03	7:07 AM	6:21 PM
2/25/03	7:05 AM	6:22 PM
2/26/03	7:04 AM	6:22 PM
2/27/03	7:03 AM	6:23 PM
2/28/03	7:02 AM	6:24 PM

TULSA

DATE	SUNRISE	SUNSET
2/1/03	7:25 AM	5:50 PM
2/2/03	7:24 AM	5:51 PM
2/3/03	7:23 AM	5:52 PM
2/4/03	7:22 AM	5:53 PM
2/5/03	7:22 AM	5:54 PM
2/6/03	7:21 AM	5:55 PM
2/7/03	7:20 AM	5:57 PM
2/8/03	7:19 AM	5:58 PM
2/9/03	7:18 AM	5:59 PM
2/10/03	7:17 AM	6:00 PM
2/11/03	7:16 AM	6:01 PM
2/12/03	7:15 AM	6:02 PM
2/13/03	7:14 AM	6:03 PM
2/14/03	7:13 AM	6:04 PM
2/15/03	7:12 AM	6:05 PM
2/16/03	7:10 AM	6:06 PM
2/17/03	7:09 AM	6:07 PM
2/18/03	7:08 AM	6:08 PM
2/19/03	7:07 AM	6:09 PM
2/20/03	7:06 AM	6:10 PM
2/21/03	7:05 AM	6:11 PM
2/22/03	7:03 AM	6:12 PM
2/23/03	7:02 AM	6:13 PM
2/24/03	7:01 AM	6:14 PM
2/25/03	7:00 AM	6:15 PM
2/26/03	6:58 AM	6:16 PM
2/27/03	6:57 AM	6:16 PM
2/28/03	6:56 AM	6:17 PM

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