OKLAHOMA MONTHLY CLIMATE SUMMARY
MARCH 2003

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Oklahoma Climatological Survey

MONTHLY SUMMARY FOR MARCH 2003

March 2003

Statewide average temperature = 49.2º F
Statewide average rainfall = 2.04 inches

Oklahoma's weather during March seemed more lamb than lion. The onset of the state's primary severe weather season did provide some thrills, however, as the state experienced its first tornadoes since last September. Despite the presence of several flooding rainfalls and exceedingly warm weather, however, the month finished both cooler and drier than normal. Data from the Oklahoma Mesonet indicate that the month was the 45th coolest and 47th driest March the state has experienced since record keeping began in 1892.

The statewide-averaged temperature finished 1.8 degrees below normal at 49.2 degrees, as the frigid weather during the latter parts of February spilled into the first week of March. The state's coldest temperature, 11 degrees, occurred on the 5th of the month at Ft. Supply (Woodward County). Temperatures moderated soon after, however, and more seasonable temperatures dominated the remainder of the month. Elk City (Beckham) reached 90 degrees on the 13th – the first 90 degree temperature in the state since October, as well as the highest temperature recorded during March.

March Normals

Statewide average temperature = 51.0º F
Statewide average rainfall = 3.06 inches

Statewide-averaged precipitation fell 1.02 inches below normal at 2.04 inches. Much of western and southern Oklahoma experienced a precipitation deficit of at least 50 percent of normal for the month. West central and southwestern Oklahoma were particularly hard hit, both falling below 40 percent of normal precipitation. Northern sections of the state fared better; especially the north central area, where precipitation totals were 87 percent of normal. Despite the sparse precipitation statewide, heavier rainfall fell in localized areas, generally associated with convective storms. Ingalls (Payne) led the state's rainfall totals with 5.19 inches, followed closely by Chandler (Lincoln) and Shawnee (Pottawatomie) with 4.85 inches and 4.83 inches, respectively.

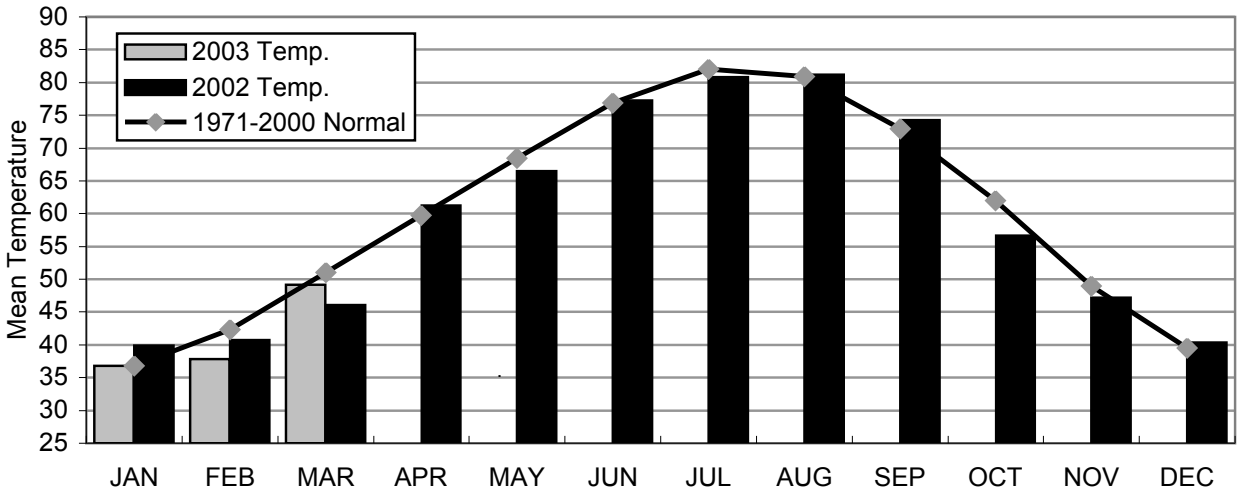
The first twister of the new year touched down five miles southwest of Gotebo in Kiowa County on the 17th, damaging a house before dissipating. A second tornado dropped from the same thunderstorm minutes later and traveled 3 miles before lifting back into the sky. Another minor tornado was reported by spotters near Pumpkin Center (Comanche) with no reported damage. The tornadoes were the first reported in the state since two minor twisters briefly touched down in northern Oklahoma on September 18th of the previous year. There were no tornadoes reported during March of 2001 or 2002. March has averaged four tornadoes per year since accurate statistic-keeping began in 1950.

(Continued on page 3.)

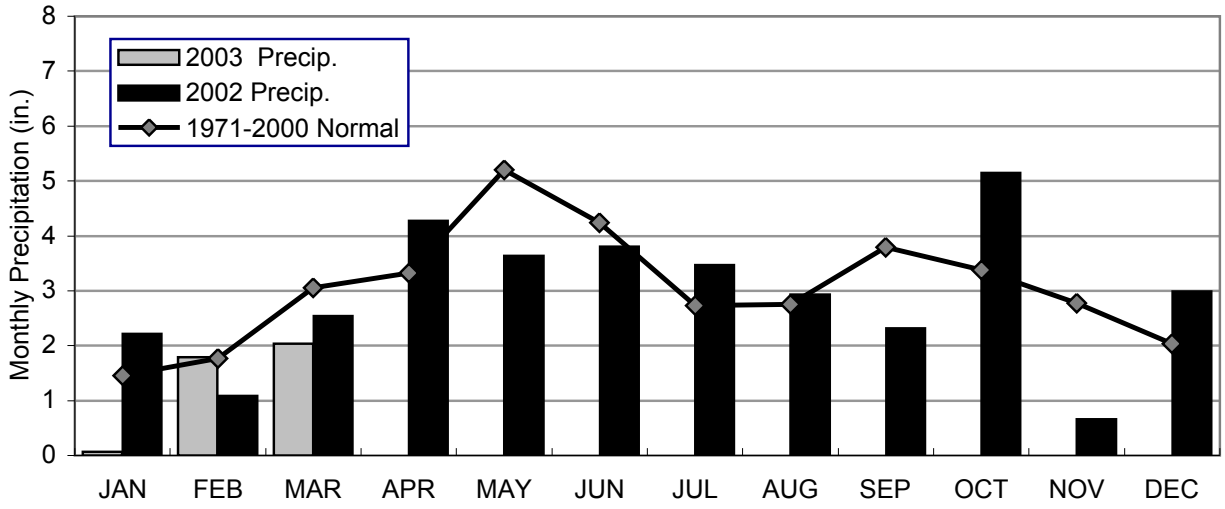
The thunderstorms that spawned those tornadoes brought widespread severe weather to southwestern, central, and north central Oklahoma on the 17th, with numerous occurrences of hail up to 2 inches in diameter reported across the area. Tennis ball sized hail pounded Duncan, and winds of over 60 mph were spread throughout that part of the state. The stormy weather continued through the 18th and19th, with the main culprit being heavy rainfall those days. Excessive rain created flooding on the Chikaskia and Salt Fork Rivers in north central Oklahoma. Earlier in the month, on the 12th, over 4000 customers were left without power as a line of severe thunderstorms passed through central Oklahoma. Lightning from the storms ignited the roof of a residence, and golf ball sized hail fell in Logan County. As the storms moved east, strong winds blew the roof partially off at Frink-Chambers Elementary School in McAlester. More storms associated with a cold frontal passage on the 24th brought scattered reports of large hail in central Oklahoma.

Gary D. McManus

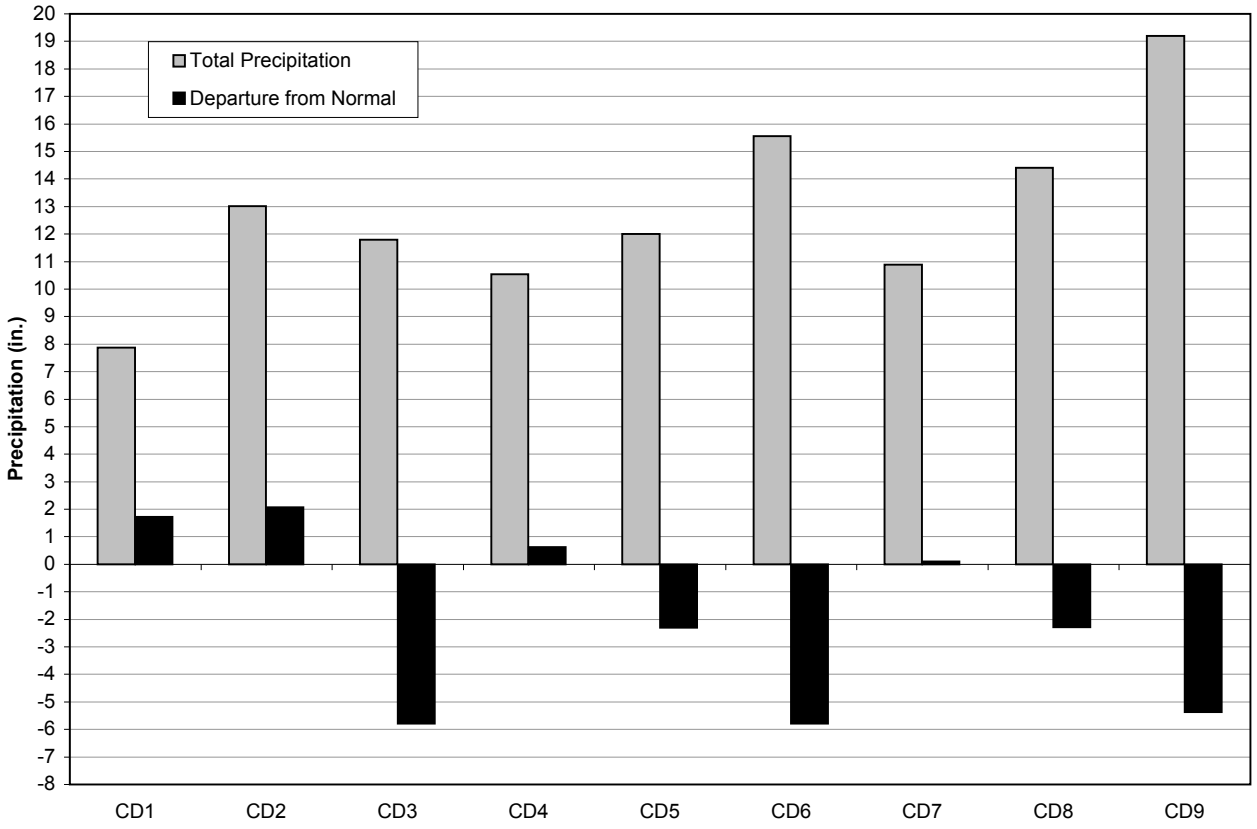
2002 AND 2003 STATEWIDE TEMPERATURES - MONTHLY AVERAGES



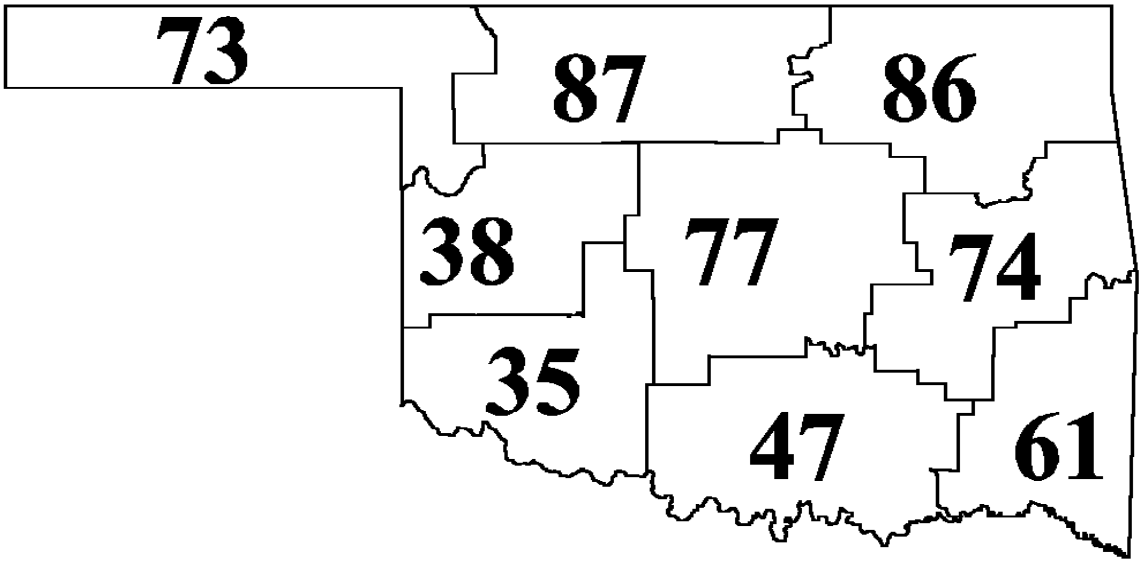
2002 AND 2003 STATEWIDE PRECIPITATION - MONTHLY TOTALS



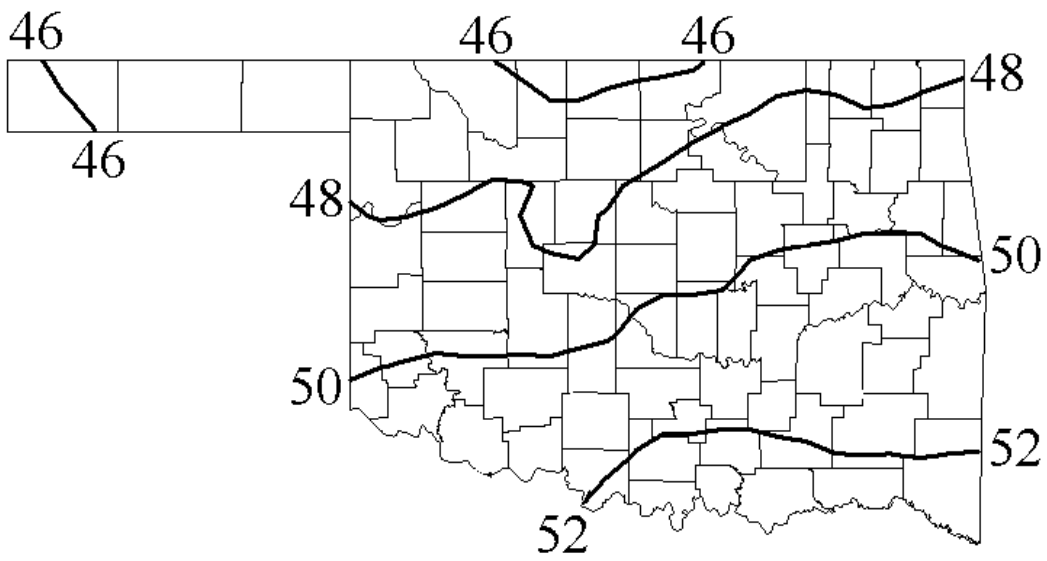
CLIMATE DIVISION AVERAGED PRECIPITATION - OCTOBER 2002 THROUGH MARCH 2003



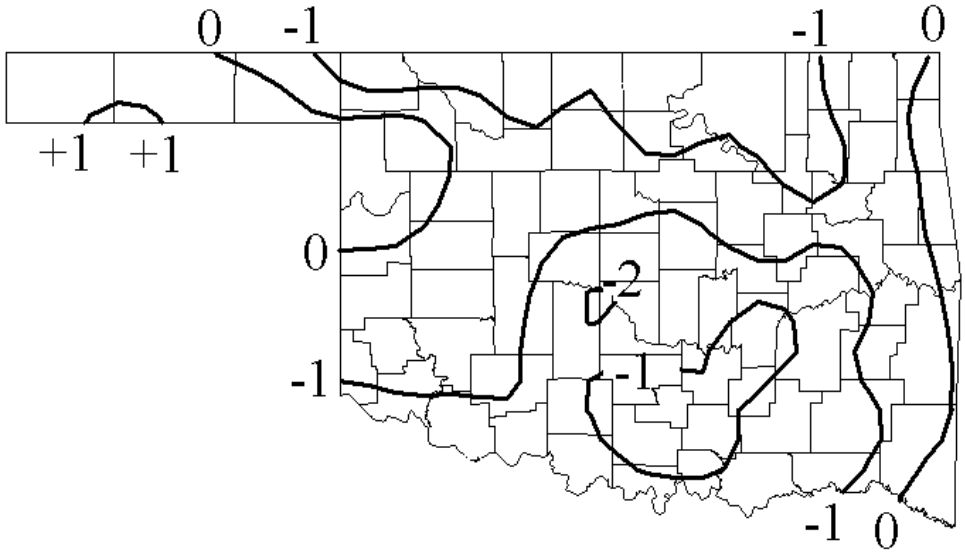
CLIMATE DIVISION PERCENT OF NORMAL PRECIPITATION - MARCH 2003



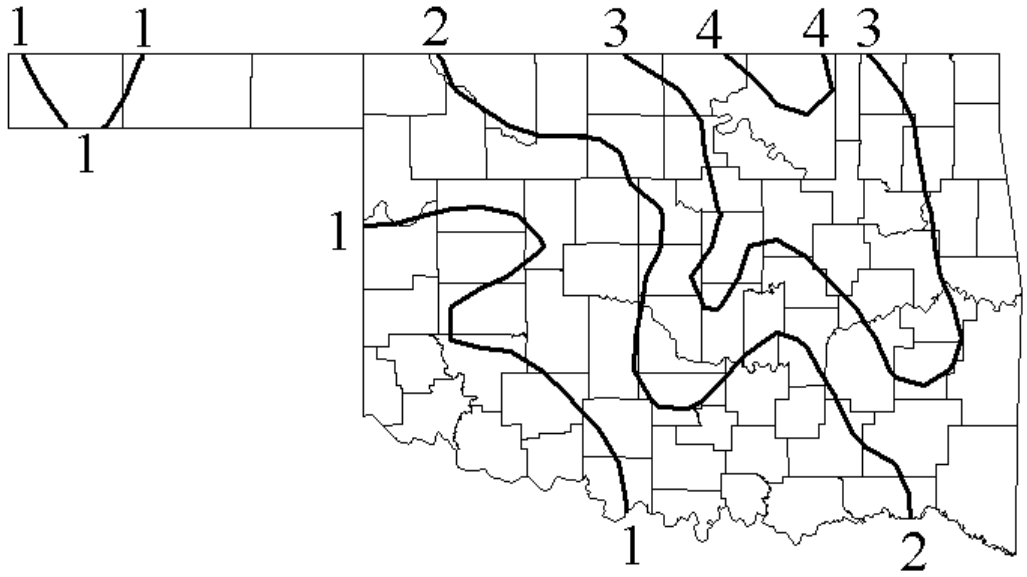
MARCH 2003 AVERAGE MONTHLY TEMPERATURE (ºF)



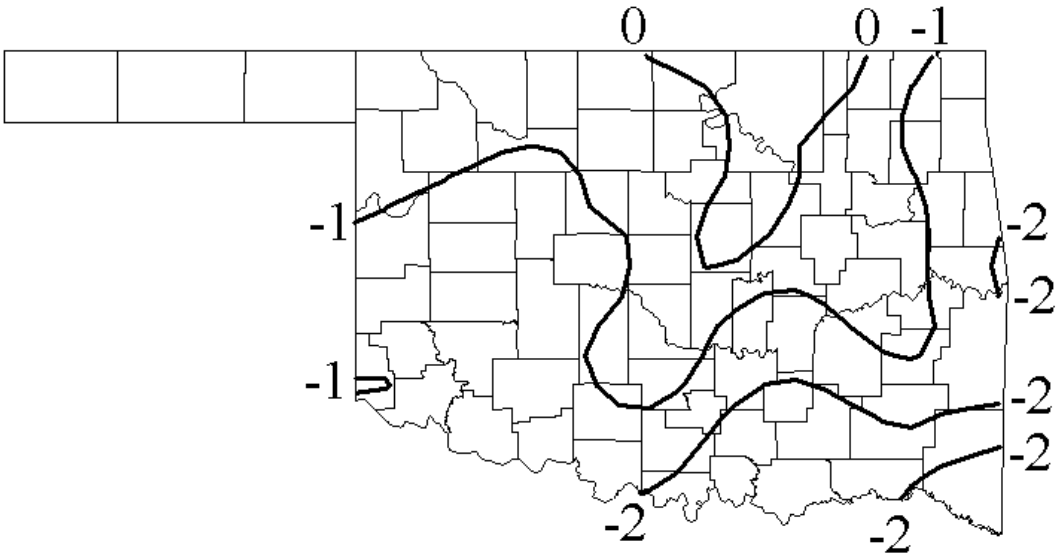
MARCH 2003 DEPARTURE FROM NORMAL TEMPERATURE (ºF)



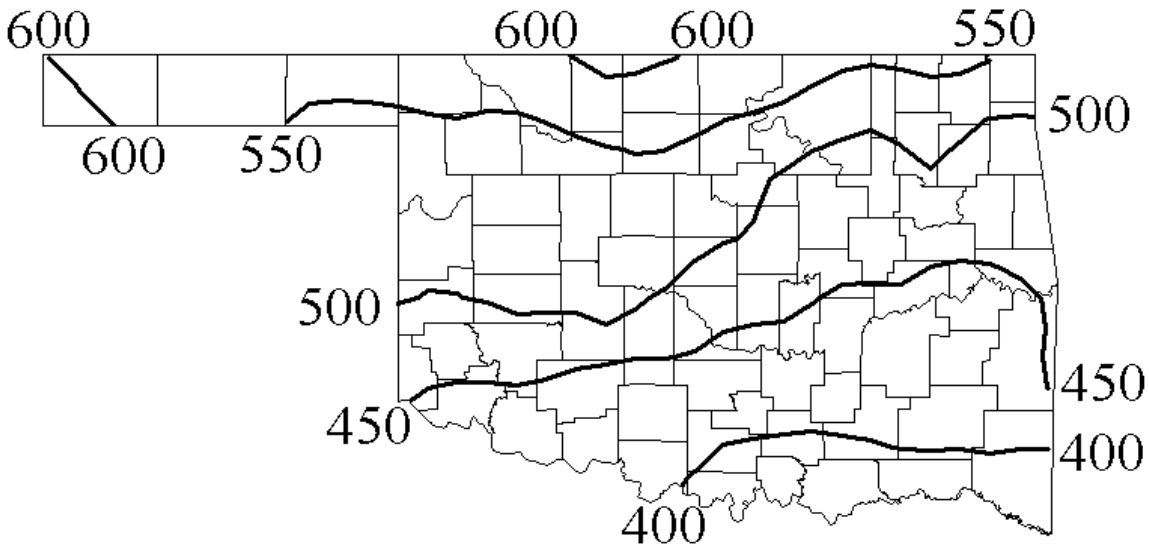
MARCH 2003 PRECIPITATION (INCHES)



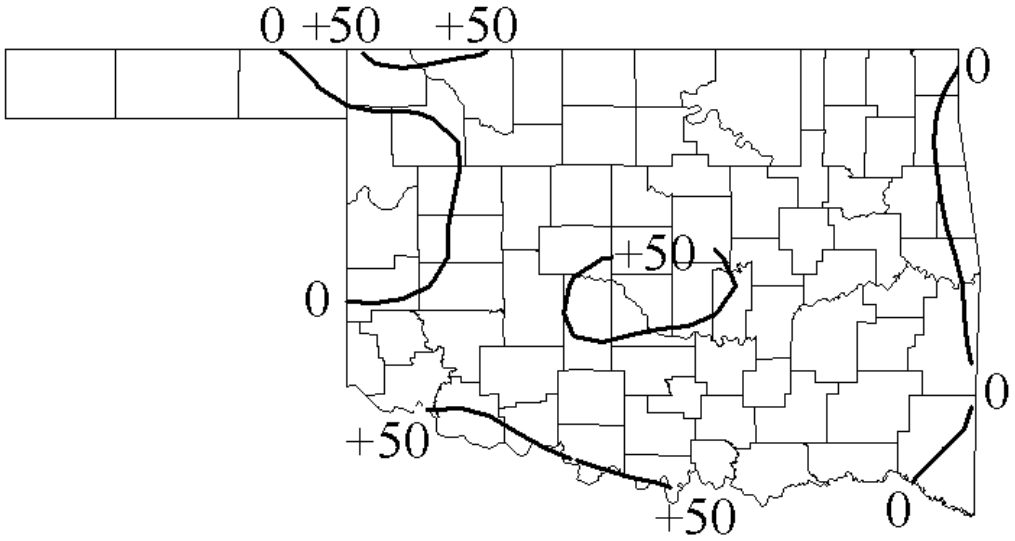
MARCH 2003 DEPARTURE FROM NORMAL PRECIPITATION (INCHES)



MARCH 2003 ACCUMULATED HEATING DEGREE DAYS (ºF)



MARCH 2003 DEPARTURE FROM NORMAL HEATING DEGREE DAYS (ºF)



MARCH 2003 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	46.4	31	0.6	82	15	14	6	577	-20	0	0	1.420	31	-0.53	0.87	20
BEAVER	593	1	45.7	30	0.2	86	16	13	6	580	-25	2	2	1.080	31	-0.67	0.65	20
BOISE CITY	908	1	46.7	31	0.9	80	14	13	5	566	-29	0	0	0.884	31	-0.31	0.75	19
BUFFALO	1243	1	46.7	31	-3.0	83	17	15	6	569	92	2	-2	1.241	31	-0.90	0.48	20
FARGO	3070	1	*****	0	*****	****	0	****	0	******	******	******	******	1.831	31	*****	0.86	20
GAGE	3407	1	47.5	31	0.7	84	14	15	6	542	-24	0	0	1.117	31	-0.81	0.69	19
GATE	3489	1	47.1	29	*****	84	15	13	6	524	******	4	******	1.281	31	-0.79	0.75	20
GOODWELL	3628	1	47.2	31	1.3	83	16	13	5	552	-42	0	0	1.130	31	0.03	0.60	20
GUYMON	3835	1	47.7	21	*****	83	16	13	5	363	******	0	******	0.970	21	*****	0.51	20
HOOKER	4298	1	47.4	31	0.0	84	14	12	29	545	-1	0	0	1.102	31	-0.32	1.03	19
LAVERNE	5045	1	49.3	23	*****	84	14	14	9	363	******	1	******	1.663	31	*****	0.90	20
RANGE	7412	1	*****	0	*****	****	0	****	0	******	******	******	******	0.910	31	*****	0.85	21
REGNIER	7534	1	*****	0	*****	****	0	****	0	******	******	******	******	0.801	31	*****	0.77	19
TURPIN	9017	1	47.3	23	*****	84	15	15	6	406	******	0	******	0.760	23	*****	0.48	20

MARCH 2003 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
BILLINGS	755	2	46.4	30	-1.5	80	16	16	6	559	26	2	1	2.433	31	-0.70	1.45	19
BLACKWELL 2E	818	2	46.2	31	-0.4	79	16	17	7	587	15	3	3	2.764	31	-0.12	1.65	19
BRAMAN	1075	2	*****	0	*****	****	0	****	0	******	******	******	******	3.180	31	*****	2.33	18
CEDARDALE	1620	2	*****	0	*****	****	0	****	0	******	******	******	******	1.583	31	*****	1.27	20
CHEROKEE	1724	2	45.0	31	-1.5	82	16	16	5	625	51	4	4	2.040	31	-0.92	1.20	19
ENID	2912	2	47.2	31	0.0	80	17	16	6	555	2	4	4	1.794	31	-0.76	0.94	19
FT SUPPLY	3304	2	46.9	31	1.2	83	15	11	5	566	-36	4	4	2.681	31	0.52	1.28	18
FREEDOM	3358	2	46.7	29	*****	84	15	14	5	534	******	2	******	1.400	30	*****	0.57	19
GREAT SALT P	3740	2	46.8	29	*****	81	16	15	6	533	******	6	******	2.810	30	*****	1.34	19
HELENA	4019	2	45.8	31	-1.6	80	16	16	6	597	50	3	3	2.304	31	-0.59	1.17	20
JEFFERSON	4573	2	45.8	31	-1.0	81	16	13	6	595	29	1	1	2.711	31	-0.31	1.50	19
LAHOMA	4950	2	47.3	31	*****	81	13	15	6	551	******	2	******	1.520	31	*****	0.72	19
LAMONT	5013	2	*****	0	*****	****	0	****	0	******	******	******	******	2.460	31	*****	1.62	19
MEDFORD	5768	2	*****	0	*****	****	0	****	0	******	******	******	******	3.082	31	*****	1.78	19
MORRISON	6065	2	*****	0	*****	****	0	****	0	******	******	******	******	2.760	31	*****	1.58	19
MUTUAL	6139	2	46.5	31	0.3	79	15	15	7	574	-11	0	0	1.520	31	-0.78	0.82	20
NEWKIRK	6278	2	44.7	31	-1.0	78	13	16	6	631	34	0	0	3.462	31	0.64	1.90	19
ORIENTA	6751	2	*****	0	*****	****	0	****	0	******	******	******	******	1.862	31	*****	0.92	20
PERRY	7012	2	48.2	29	*****	80	17	17	6	494	******	5	******	2.820	31	-0.05	1.37	19
PONCA CITY	7201	2	47.3	31	-1.9	80	12	16	6	554	60	4	2	1.814	31	-1.13	0.73	17
RED ROCK	7505	2	*****	0	*****	****	0	****	0	******	******	******	******	3.820	31	*****	1.70	17
WAYNOKA	9404	2	47.8	31	-0.2	83	31	15	6	539	8	5	4	1.981	31	-0.31	0.83	19
WOODWARD	9760	2	*****	0	*****	****	0	****	0	******	******	******	******	0.762	31	*****	0.42	2

MARCH 2003 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
BARNSDALL	535	3	49.1	31	-0.9	81	24	18	6	496	29	3	2	3.130	31	-0.49	2.18	19
BARTLESVILLE	548	3	48.8	31	-2.1	83	24	19	6	506	65	3	2	4.353	31	0.92	3.34	19
BURBANK	1256	3	*****	0	*****	****	0	****	0	******	******	******	******	3.021	31	*****	2.42	18
CLAREMORE	1828	3	47.0	31	-1.7	79	25	16	7	562	54	3	3	3.085	31	-0.69	1.73	19
HOLLOW	4258	3	*****	0	*****	****	0	****	0	******	******	******	******	2.031	31	*****	0.75	19
HOMINY	4289	3	*****	0	*****	****	0	****	0	******	******	******	******	3.450	31	*****	2.25	19
KANSAS	4672	3	50.9	31	0.1	77	24	20	6	437	-5	1	-1	2.710	31	-1.60	1.23	18
LENAPAH	5118	3	*****	0	*****	****	0	****	0	******	******	******	******	2.640	31	*****	1.22	19
MANNFORD	5522	3	50.8	31	-1.0	83	24	14	6	449	34	9	5	4.110	31	0.56	2.42	22
MARAMEC	5540	3	*****	0	*****	****	0	****	0	******	******	******	******	3.490	31	*****	1.64	19
NOWATA	6485	3	50.2	31	-0.6	81	24	18	6	461	19	3	2	3.450	31	-0.37	2.53	19
PAWHUSKA	6935	3	49.4	31	-0.8	81	24	18	6	489	29	4	3	4.787	31	1.14	2.59	19
PAWNEE	6940	3	*****	0	*****	****	0	****	0	******	******	******	******	3.830	31	*****	1.74	19
PRYOR	7309	3	48.9	28	*****	82	4	18	6	458	******	7	******	2.932	31	-1.08	1.12	19
RALSTON	7390	3	47.4	31	-1.0	80	24	17	6	548	31	4	4	3.600	31	0.16	1.90	19
SPAVINAW	8380	3	52.0	31	0.1	77	25	20	6	408	1	7	5	2.471	31	-1.37	1.10	19
TULSA	8992	3	49.6	31	-1.8	81	24	18	6	481	44	5	-6	3.253	31	-0.32	1.88	18
UPPER SPAV	9101	3	49.1	31	*****	79	24	21	6	495	******	1	******	2.634	31	*****	1.20	19
VINITA	9203	3	49.4	24	*****	80	24	17	6	376	******	2	******	2.400	31	-1.53	1.08	19
WANN	9298	3	*****	0	*****	****	0	****	0	******	******	******	******	2.753	31	*****	1.52	19

MARCH 2003 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	48.6	31	-0.3	82	25	18	6	509	9	0	-1	0.534	31	-1.98	0.26	20
CORDELL	2125	4	47.4	31	*****	82	25	15	7	546	******	0	******	2.082	31	*****	1.50	20
ELK CITY	2849	4	47.6	30	-0.1	90	13	16	6	526	-13	5	5	0.791	31	-1.64	0.37	20
ERICK	2944	4	48.8	29	*****	85	13	15	7	473	******	2	******	0.621	31	-1.44	0.31	28
GEARY	3497	4	49.0	30	0.0	80	24	16	5	484	-12	5	5	0.710	31	-1.68	0.37	27
HAMMON	3871	4	46.3	28	*****	88	25	13	6	526	******	3	******	0.560	31	-1.75	0.42	19
LEEDEY	5090	4	*****	0	*****	****	0	****	0	******	******	******	******	0.610	31	*****	0.51	20
MORAVIA	6035	4	*****	0	*****	****	0	****	0	******	******	******	******	0.760	31	*****	0.32	28
OKEENE	6629	4	49.4	31	-0.8	81	31	16	6	488	26	4	3	0.970	31	-1.66	0.46	19
RETROP	7565	4	*****	0	*****	****	0	****	0	******	******	******	******	1.640	31	*****	0.85	2
REYDON	7579	4	47.8	30	-0.1	83	13	15	6	517	-16	0	0	0.710	31	-1.23	0.44	20
SAYRE	7952	4	*****	0	*****	****	0	****	0	******	******	******	******	0.570	31	*****	0.26	28
SWEETWATER	8652	4	*****	0	*****	****	0	****	0	******	******	******	******	0.361	31	*****	0.30	20
TALOGA	8708	4	47.0	29	*****	80	13	13	6	525	******	2	******	0.783	31	-1.57	0.58	20
THOMAS	8815	4	*****	0	*****	****	0	****	0	******	******	******	******	1.010	31	*****	0.46	20
VICI	9172	4	*****	0	*****	****	0	****	0	******	******	******	******	1.424	31	*****	0.93	20
WATONGA	9364	4	46.6	31	-0.8	81	25	15	6	575	29	3	3	0.774	31	-2.00	0.37	20
WEATHERFORD	9422	4	48.9	31	-0.5	80	25	15	6	500	17	2	2	1.290	31	-0.98	0.39	18

MARCH 2003 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	******	******	******	******	1.250	31	*****	0.40	27
ARCADIA	288	5	*****	0	*****	****	0	****	0	******	******	******	******	2.100	31	*****	0.53	28
BLANCHARD	830	5	49.5	31	-3.4	87	13	17	7	492	114	10	7	1.731	31	-1.04	0.57	28
BRISTOW	1144	5	52.3	30	0.8	80	24	15	6	386	-32	6	5	3.100	31	-0.42	1.48	19
CHANDLER	1684	5	47.8	31	-1.9	81	25	16	7	540	63	8	7	4.850	31	1.72	2.00	20
CHICKASHA EX	1750	5	51.4	29	*****	80	12	15	6	398	******	4	******	1.950	31	-0.87	0.55	29
COX CITY	2196	5	*****	0	*****	****	0	****	0	******	******	******	******	1.070	31	*****	0.31	28
CRESCENT	2242	5	*****	0	*****	****	0	****	0	******	******	******	******	1.492	31	*****	0.52	19
CUSHING	2318	5	49.4	31	-0.5	81	25	18	6	490	19	6	4	3.410	31	0.20	1.27	18
EDMOND	2788	5	*****	0	*****	****	0	****	0	******	******	******	******	1.540	31	*****	0.65	12
EL RENO	2818	5	46.2	31	-2.1	80	13	16	7	586	68	3	3	0.710	31	-2.01	0.28	19
GUTHRIE	3821	5	48.1	31	-0.6	82	13	12	7	534	27	9	9	1.461	31	-1.84	0.54	19
HENNESSEY	4055	5	46.4	30	-0.5	77	17	17	6	560	-1	2	2	2.201	31	-0.51	1.05	18
INGALLS	4489	5	*****	0	*****	****	0	****	0	******	******	******	******	5.190	31	*****	2.45	18
KINGFISHER	4861	5	47.0	31	-0.6	81	13	16	6	563	23	3	3	2.600	31	-0.06	1.20	18
KONAWA	4915	5	*****	0	*****	****	0	****	0	******	******	******	******	1.250	31	*****	0.56	18
MARSHALL	5589	5	*****	0	*****	****	0	****	0	******	******	******	******	2.300	31	*****	0.97	18
MEEKER	5779	5	47.1	29	*****	79	25	14	7	522	******	4	******	3.881	31	0.61	1.65	18
MULHALL	6110	5	*****	0	*****	****	0	****	0	******	******	******	******	1.660	31	*****	0.95	19
NORMAN NWS	6386	5	50.2	31	*****	80	12	16	6	467	******	8	******	2.094	31	*****	0.52	18
OKEMAH	6638	5	52.4	31	-1.6	78	31	18	6	391	43	2	-5	2.110	31	-1.40	0.80	19
OKLAHOMA CTY	6659	5	*****	0	*****	****	0	****	0	******	******	******	******	2.907	31	*****	1.34	12
OKLAHOMA CTY	6661	5	49.5	31	-1.5	79	12	15	6	484	38	3	-4	2.308	31	-0.59	1.01	12
PERKINS	7003	5	*****	0	*****	****	0	****	0	******	******	******	******	2.480	31	*****	1.10	20
PIEDMONT	7068	5	*****	0	*****	****	0	****	0	******	******	******	******	0.920	31	*****	0.39	19
PRAGUE	7264	5	*****	0	*****	****	0	****	0	******	******	******	******	2.451	31	*****	0.83	18
SEMINOLE	8042	5	48.4	31	-2.6	80	13	18	8	520	86	6	5	1.790	31	-1.63	0.53	28
SHAWNEE	8110	5	*****	0	*****	****	0	****	0	******	******	******	******	4.830	31	*****	2.52	18
STELLA	8479	5	*****	0	*****	****	0	****	0	******	******	******	******	3.760	31	*****	1.35	18
STILLWATER	8501	5	49.0	25	*****	82	25	15	6	406	******	7	******	2.804	31	-0.42	1.42	18
STROUD	8563	5	*****	0	*****	****	0	****	0	******	******	******	******	2.461	31	*****	0.85	19
TECUMSEH	8751	5	*****	0	*****	****	0	****	0	******	******	******	******	2.300	31	*****	2.30	18
UNION CITY	9086	5	*****	0	*****	****	0	****	0	******	******	******	******	1.254	31	*****	0.40	25
WANETTE	9291	5	48.6	29	*****	79	13	17	6	484	******	8	******	2.770	31	*****	1.20	18
WEWOKA	9575	5	*****	0	*****	****	0	****	0	******	******	******	******	1.611	31	*****	0.50	28

MARCH 2003 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	******	******	******	******	1.481	31	*****	0.50	19
BEGGS	631	6	*****	0	*****	****	0	****	0	******	******	******	******	3.670	31	*****	2.45	20
CALVIN	1391	6	*****	0	*****	****	0	****	0	******	******	******	******	2.200	31	*****	0.55	19
CHECOTAH	1711	6	52.0	31	*****	86	24	22	6	414	******	12	******	3.573	31	*****	2.50	19
CLAYTON	1858	6	*****	0	*****	****	0	****	0	******	******	******	******	2.990	31	*****	2.13	19
DEWAR	2485	6	*****	0	*****	****	0	****	0	******	******	******	******	4.131	31	*****	2.60	19
DUSTIN	2690	6	*****	0	*****	****	0	****	0	******	******	******	******	2.151	31	*****	1.30	12
HASKELL	3956	6	*****	0	*****	****	0	****	0	******	******	******	******	4.010	31	*****	2.45	19
HOLDENVILLE	4235	6	50.6	31	0.7	80	31	19	5	456	-13	9	9	1.840	31	-1.71	0.60	18
LAKE EUFAULA	4975	6	48.4	31	-2.0	78	25	21	7	518	62	3	1	3.721	31	-0.27	2.45	19
LYONS	5437	6	*****	0	*****	****	0	****	0	******	******	******	******	1.492	31	*****	0.76	19
MCALESTER	5664	6	51.9	31	-1.4	79	12	24	30	414	46	8	3	2.534	31	-1.44	1.70	18
MUSKOGEE	6130	6	49.9	31	-0.5	81	24	22	6	470	15	2	2	3.343	31	-0.33	2.20	17
OKMULGEE	6670	6	*****	0	*****	****	0	****	0	******	******	******	******	3.690	31	-0.08	2.53	18
OKTAHA	6678	6	*****	0	*****	****	0	****	0	******	******	******	******	3.960	31	*****	2.94	19
SALLISAW	7862	6	50.2	31	0.0	79	25	25	7	462	2	4	3	1.920	31	-2.23	0.95	19
SCIPIO	7979	6	*****	0	*****	****	0	****	0	******	******	******	******	2.420	31	*****	1.50	19
SHORT	8170	6	*****	0	*****	****	0	****	0	******	******	******	******	2.790	31	*****	1.00	19
WEBBERS FALL	9445	6	48.0	29	*****	79	25	19	6	494	******	1	******	3.551	31	-0.64	2.40	18
WETUMKA	9571	6	*****	0	*****	****	0	****	0	******	******	******	******	1.896	31	*****	0.64	19

MARCH 2003 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	51.4	31	0.0	86	25	18	7	441	15	20	19	1.420	31	-0.64	0.72	18
ALTUS	179	7	50.7	31	-0.6	87	24	17	6	448	21	4	4	0.630	31	-1.15	0.26	28
ANADARKO	224	7	47.0	31	-1.7	82	25	14	6	563	57	4	4	0.791	31	-1.60	0.41	28
APACHE	260	7	*****	0	*****	****	0	****	0	******	******	******	******	1.720	31	*****	1.10	13
CARNEGIE	1504	7	48.8	30	0.4	81	13	16	6	488	-28	2	2	1.390	31	-0.96	0.61	28
CHATTANOOGA	1706	7	49.5	31	-0.8	87	25	18	6	488	33	6	6	0.634	31	-1.86	0.38	28
DUNCAN 11 W	2668	7	*****	0	*****	****	0	****	0	******	******	******	******	0.711	31	*****	0.35	28
FREDERICK	3353	7	51.3	29	*****	87	24	19	6	403	******	5	******	0.550	31	-1.82	0.28	28
HEADRICK	3998	7	*****	0	*****	****	0	****	0	******	******	******	******	0.000	31	*****	0.00	31
HOBART	4204	7	49.6	31	-1.0	83	24	16	6	483	35	7	7	0.604	31	-1.39	0.34	27
HOLLIS	4249	7	51.2	31	-1.1	88	24	16	6	433	37	6	5	0.680	31	-0.87	0.28	28
LAWTON	5063	7	51.3	27	*****	85	25	20	6	380	******	10	******	0.651	31	-1.89	0.27	28
LOOKEBA	5329	7	*****	0	*****	****	0	****	0	******	******	******	******	2.050	31	*****	0.98	18
MANGUM	5509	7	49.7	30	-0.6	88	25	16	7	465	8	6	6	0.750	31	-0.96	0.40	22
RANDLETT	7403	7	*****	0	*****	****	0	****	0	******	******	******	******	0.581	31	*****	0.36	28
ROOSEVELT	7727	7	*****	0	*****	****	0	****	0	******	******	******	******	0.480	31	*****	0.40	28
SEDAN	8016	7	*****	0	*****	****	0	****	0	******	******	******	******	0.501	31	*****	0.42	28
SNYDER	8299	7	*****	0	*****	****	0	****	0	******	******	******	******	0.520	31	*****	0.36	28
VINSON	9212	7	*****	0	*****	****	0	****	0	******	******	******	******	0.580	31	*****	0.34	28
WALTERS	9278	7	50.7	31	-0.7	84	25	17	6	450	28	7	7	0.750	31	-1.97	0.55	18
WICHITA MT	9629	7	51.8	29	*****	84	25	14	6	391	******	9	******	1.361	29	*****	0.82	18
WILLOW	9668	7	*****	0	*****	****	0	****	0	******	******	******	******	0.481	31	*****	0.31	28

MARCH 2003 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	51.6	31	-1.1	78	12	18	6	416	31	0	-3	2.000	31	-1.68	0.64	19
ALLEN	147	8	*****	0	*****	****	0	****	0	******	******	******	******	2.200	31	*****	1.50	13
ARDMORE	292	8	54.8	31	1.6	80	31	23	5	330	-43	12	7	1.470	31	-1.70	0.59	17
ATOKA	391	8	50.6	31	*****	79	18	22	6	448	******	2	******	1.770	31	*****	0.61	13
BOKCHITO	917	8	*****	0	*****	****	0	****	0	******	******	******	******	2.060	31	*****	1.26	13
CANEY	1437	8	*****	0	*****	****	0	****	0	******	******	******	******	1.880	31	*****	0.63	3
CENTRAHOMA	1648	8	50.6	28	*****	78	25	21	7	404	******	2	******	1.250	31	*****	0.45	19
CHICKASAW	1745	8	50.5	31	-1.5	79	13	19	6	456	52	7	6	1.720	31	-2.18	0.70	19
COLEMAN	2011	8	*****	0	*****	****	0	****	0	******	******	******	******	0.330	31	*****	0.33	13
COMANCHE	2054	8	*****	0	*****	****	0	****	0	******	******	******	******	0.702	31	*****	0.50	28
DAISY	2354	8	*****	0	*****	****	0	****	0	******	******	******	******	2.862	31	*****	1.97	19
DUNCAN	2660	8	50.5	30	-1.7	82	25	20	7	441	42	7	5	1.351	31	-1.44	0.49	18
DURANT	2678	8	52.7	28	*****	79	31	22	5	346	******	1	******	1.510	31	-2.34	0.60	12
ELMORE CITY	2872	8	*****	0	*****	****	0	****	0	******	******	******	******	2.890	31	*****	1.35	18
GRADY	3688	8	*****	0	*****	****	0	****	0	******	******	******	******	1.260	31	*****	0.65	19
HEALDTON	4001	8	51.5	31	-0.8	82	28	19	6	426	23	9	2	1.620	31	-1.58	0.95	18
HENNEPIN	4052	8	*****	0	*****	****	0	****	0	******	******	******	******	1.980	31	*****	0.77	18
KINGSTON	4865	8	*****	0	*****	****	0	****	0	******	******	******	******	1.601	31	*****	0.90	13
LINDSAY	5216	8	49.8	31	-0.5	80	12	16	5	479	22	7	7	3.400	31	0.50	1.70	31
LOCO	5247	8	*****	0	*****	****	0	****	0	******	******	******	******	0.820	31	*****	0.29	19
MADILL	5468	8	51.8	30	-0.4	79	25	22	9	399	-1	5	4	0.870	31	-2.80	0.40	19
MARIETTA	5563	8	50.4	31	-2.5	78	18	21	7	454	75	2	-1	1.030	31	-2.34	0.71	19
MARLOW	5581	8	56.0	31	*****	82	24	15	6	303	******	25	******	0.901	31	*****	0.43	28
MCGEE CREEK	5713	8	51.4	31	-1.7	79	25	24	6	424	48	3	-4	1.672	31	-2.78	0.62	19
PAULS VALLEY	6926	8	50.7	31	0.0	82	16	17	6	456	11	12	12	2.700	31	-0.39	0.88	18
PONTOTOC	7214	8	*****	0	*****	****	0	****	0	******	******	******	******	1.090	31	*****	0.68	18
TISHOMINGO	8884	8	*****	0	*****	****	0	****	0	******	******	******	******	1.320	31	*****	0.70	19
TUSSY	9032	8	*****	0	*****	****	0	****	0	******	******	******	******	1.690	31	*****	0.70	18
WAURIKA	9395	8	53.0	31	-2.7	83	27	20	6	390	91	19	9	0.771	31	-1.80	0.32	28

MARCH 2003 SUMMARY FOR SOUTHEAST CLIMATE DIVISION (CD9)

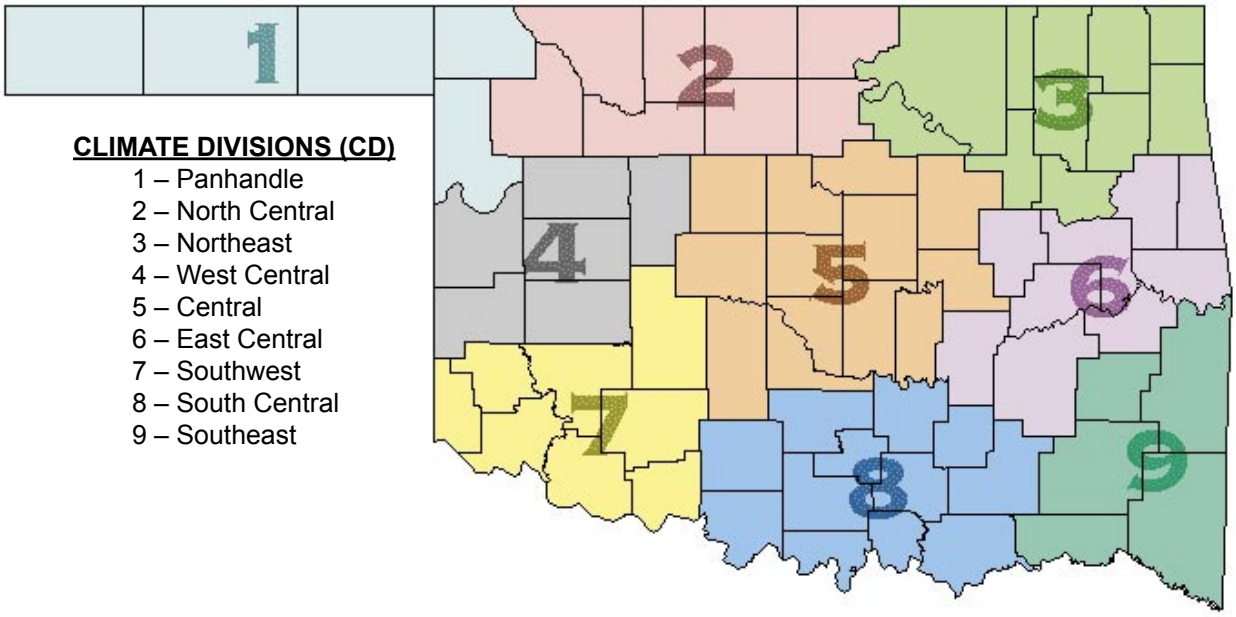
NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ANTLERS	256	9	50.7	31	-3.2	78	25	22	30	445	95	1	-4	1.482	31	-2.28	0.81	19
BATTIEST	567	9	48.6	31	-0.8	78	24	19	29	510	26	0	0	2.005	31	-2.73	1.26	18
BENGAL	670	9	*****	0	*****	****	0	****	0	******	******	******	******	3.270	31	*****	2.43	19
BROKEN BOW	1162	9	*****	0	*****	****	0	****	0	******	******	******	******	2.570	31	*****	1.60	18
CARTER TWR	1544	9	*****	0	*****	****	0	****	0	******	******	******	******	2.090	31	*****	1.59	19
FANSHAWE	3065	9	*****	0	*****	****	0	****	0	******	******	******	******	3.300	31	*****	1.93	19
HUGO	4384	9	51.7	30	-1.2	79	17	23	7	401	23	1	0	1.425	30	*****	0.60	19
IDABEL	4451	9	54.4	31	0.6	82	25	28	8	335	-19	7	1	3.160	31	-1.32	1.39	13
PAGE	6842	9	49.8	31	*****	77	25	20	30	475	******	5	******	2.192	31	*****	1.62	28
SMITHVILLE	8285	9	48.3	27	*****	79	25	20	30	452	******	0	******	3.182	31	-2.08	2.25	19
SPIRO	8416	9	*****	0	*****	****	0	****	0	******	******	******	******	2.190	31	*****	1.06	19
TUSKAHOMA	9023	9	53.3	31	-0.7	80	12	21	30	366	19	3	-4	2.960	31	-1.20	2.20	19
VALLIANT	9118	9	*****	0	*****	****	0	****	0	******	******	******	******	2.840	31	*****	1.50	19
WILBURTON	9634	9	52.5	31	-0.6	79	24	21	6	386	12	0	-5	3.960	31	-0.35	2.73	18
WISTER	9724	9	50.5	31	*****	78	24	24	30	451	******	1	******	2.230	31	*****	1.40	19

MARCH 2003 CLIMATE DIVISION SUMMARY

NAME	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	46.8	7	0.3	86	16	12	29	561	-13	0	0	1.210	12	-0.43	1.03	19
NORTH CENTRAL	2	46.4	12	-0.7	84	15	11	5	577	23	3	2	2.350	21	-0.35	2.33	18
NORTHEAST	3	49.5	11	-0.8	83	24	14	6	485	26	4	2	3.210	20	-0.54	3.34	19
WEST CENTRAL	4	48.2	8	-0.1	90	13	13	6	518	-3	2	2	0.900	18	-1.47	1.50	20
CENTRAL	5	48.9	12	-1.2	87	13	12	7	501	38	5	4	2.360	35	-0.72	2.52	18
EAST CENTRAL	6	50.5	6	-0.2	86	24	19	6	456	11	6	5	2.870	20	-1.03	2.94	19
SOUTHWEST	7	49.8	9	-0.9	88	25	14	6	473	30	7	6	0.780	21	-1.45	1.10	13
SOUTH CENTRAL	8	51.8	13	-0.7	83	27	15	6	417	24	8	5	1.610	29	-1.78	1.97	19
SOUTHEAST	9	51.4	8	-1.1	82	25	19	29	421	29	2	-1	2.670	14	-1.73	2.73	18

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

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

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 MARCH 2003

NAME	MEAN TEMP	MAX TEMP	MAX DAY	MIN TEMP	MIN DAY	HDD	CDD	TOT PPT	MAX 24-HR	MAX DAY
PANHANDLE										
Arnett	48.6	82	14	16	5	508	0	1.48	.67	19
Beaver	47.4	86	14	14	5	549	3	1.11	.93	19
Boise City	44.6	80	14	13	5	633	0	.94	.75	19
Buffalo	47.3	85	14	16	5	551	2	1.82	.75	19
NORTH CENTRAL										
Blackwell	46.7	80	15	16	6	568	2	2.94	1.41	19
Breckenridge	47.1	78	16	17	6	559	4	1.79	.65	18
Cherokee	47.0	80	31	18	5	559	1	2.82	1.08	19
Fairview	48.1	80	31	17	6	525	1	1.91	.75	19
Freedom	47.3	82	14	15	6	550	0	1.87	.70	19
Lahoma	46.8	79	15	16	6	563	0	1.67	.71	19
May Ranch	46.5	82	15	14	5	576	2	2.80	1.02	17
NORTHEAST										
Bixby	49.2	80	12	17	6	492	2	3.80	2.25	18
Burbank	48.2	80	24	18	5	****	****	3.68	2.01	18
Copan	47.5	80	24	18	5	545	2	3.88	2.10	18
Foraker	46.6	80	24	16	5	572	2	4.81	1.72	18
Jay	*****	***	***	***	***	****	****	*****	*****	***
Miami	47.9	80	24	17	6	532	3	2.33	.93	19
Nowata	46.8	79	24	18	6	567	3	4.28	2.19	18
Pawnee	48.9	82	24	17	6	507	8	3.56	1.66	18
WEST CENTRAL										
Bessie	50.0	82	24	17	6	470	4	.75	.50	27
Butler	49.2	84	12	15	6	494	3	.53	.37	19
Camargo	47.7	80	12	14	6	538	0	1.38	.65	19
Cheyenne	49.5	82	12	16	6	483	2	.74	.40	19
Erick	48.9	85	12	14	6	503	4	.62	.35	27
CENTRAL										
Bowlegs	51.0	79	12	17	6	442	7	1.87	.54	18
Bristow	49.0	79	12	14	6	499	3	2.95	1.39	18
Chandler	50.1	80	12	17	6	469	8	2.48	.94	18
Chickasha	49.2	78	12	16	6	493	4	1.58	.55	12
El Reno	47.8	80	12	12	6	539	5	1.23	.39	27
Guthrie	50.0	81	12	15	6	477	13	1.47	.51	18
Kingfisher	48.2	80	12	16	6	528	6	*****	*****	***
Marena	49.2	81	12	13	6	498	9	1.89	.81	18
Marshall	48.2	80	16	15	6	527	8	2.48	1.05	17
Minco	49.7	79	24	16	6	481	5	1.11	.31	27
EAST CENTRAL										
Calvin	51.3	79	24	21	6	429	3	1.80	.99	18
Cookson	49.9	77	24	22	3	471	1	2.24	1.04	18
Eufaula	50.7	77	12	22	6	447	2	3.11	1.74	18
Haskell	49.4	79	12	18	6	483	0	3.70	2.27	18
McAlester	51.8	78	24	24	6	415	7	2.67	1.81	18
Okmulgee	49.8	80	12	15	6	475	3	3.54	2.25	18
Sallisaw	51.3	80	24	25	6	426	0	1.68	.86	18
SOUTHWEST										
Altus	51.0	88	24	17	6	446	13	.59	.25	22
Fort Cobb	49.9	82	12	17	6	476	9	1.07	.60	17
Hinton	48.3	80	24	17	6	520	2	1.01	.39	27
Hobart	49.3	83	24	15	6	494	7	.71	.40	27
Hollis	50.3	87	12	15	6	462	5	.71	.18	22
Mangum	50.0	87	24	12	6	475	10	.55	.31	27
SOUTH CENTRAL										
Ada	51.8	79	12	19	6	414	5	1.86	.82	18
Ardmore	53.3	79	15	21	6	372	9	1.44	.74	18
Burneyville	53.1	80	31	20	6	380	11	.95	.74	18
Byars	51.5	77	12	18	6	424	5	1.86	.76	18
Centrahoma	51.6	79	31	20	6	420	6	1.44	.60	18
Durant	54.4	79	31	23	6	335	6	1.73	.84	13
Ketchum Ranch	52.2	80	15	18	6	409	12	1.57	.43	18
Lane	52.8	77	31	25	6	379	2	1.65	.91	18
Madill	53.3	79	31	22	6	368	6	.94	.67	18
SOUTHEAST										
Antlers	51.6	79	24	20	30	417	0	1.64	1.05	18
Clayton	52.7	80	12	23	30	386	5	2.93	2.06	18
Cloudy	52.6	77	12	22	6	384	0	2.24	1.71	18
Hugo	53.7	78	24	23	6	350	1	1.43	.94	18
Idabel	54.0	78	24	25	6	342	0	2.02	.91	18

NAME	MEAN TEMP	MAX TEMP	MAX DAY	MIN TEMP	MIN DAY	HDD	CDD	TOT PPT	MAX 24-HR	MAX DAY
Goodwell	46.1	82	14	14	5	587	0	1.33	1.10	19
Hooker	47.0	85	14	14	5	557	0	1.04	.98	19
Kenton	45.4	80	14	14	5	609	0	1.15	1.00	19
Slapout	47.6	85	14	14	5	540	0	1.27	1.06	19
Medford	46.6	79	15	17	6	571	1	3.09	1.24	18
Newkirk	46.6	79	15	16	6	572	1	4.51	2.36	18
Red Rock	47.8	80	24	15	6	****	****	2.43	1.42	18
Seiling	48.0	80	14	14	6	527	1	*****	*****	***
Woodward	48.6	82	14	15	5	510	1	1.89	.92	19
Alva	46.7	82	31	15	6	566	0	*****	*****	***
Pryor	48.0	79	24	16	6	531	4	3.03	1.31	18
Skiatook	48.5	79	24	18	6	514	2	4.37	2.36	18
Vinita	47.1	78	24	14	6	555	1	2.40	.77	19
Wynona	48.0	82	24	17	6	529	3	4.11	2.02	18
Porter	50.3	79	8	19	6	458	1	3.42	1.93	18
Inola	48.6	79	24	17	6	510	0	3.14	1.54	18
Claremore	49.3	80	24	16	6	489	3	3.92	1.79	18
Putnam	48.4	81	12	15	6	517	2	.83	.55	19
Retrop	49.8	83	24	17	6	474	4	.85	.35	27
Watonga	47.6	78	31	16	6	540	2	.91	.32	19
Weatherford	47.8	77	24	15	6	534	0	.61	.29	27
Oilton	48.5	80	24	12	6	517	6	3.38	1.47	18
Okemah	50.2	77	12	17	6	463	3	2.09	.76	18
Perkins	49.3	79	12	17	6	494	6	3.09	.96	18
Shawnee	50.2	77	12	17	6	461	2	4.34	1.51	17
Spencer	50.1	80	12	14	6	473	12	2.95	.69	12
Stillwater	48.7	81	12	14	6	514	8	3.13	1.34	18
Washington	51.1	79	12	16	6	438	8	2.74	.83	17
Ninnekah	50.8	81	24	17	6	451	11	1.37	.35	12
Acme	50.8	81	24	14	6	454	13	.83	.31	28
Norman	50.9	80	12	17	6	447	12	2.01	.48	18
Stigler	51.0	79	24	20	6	436	3	4.02	2.87	18
Stuart	51.7	77	31	21	6	417	4	1.65	.81	18
Tahlequah	49.7	78	24	21	6	474	1	*****	*****	***
Webbers Falls	51.6	80	24	25	6	417	2	2.80	1.98	18
Westville	49.8	77	24	22	6	472	0	3.51	.97	18
Hectorville	50.5	79	12	17	6	454	4	4.44	2.91	18
Medicine Park	52.2	84	24	18	6	409	13	.86	.39	17
Tipton	51.1	86	24	17	6	440	9	.85	.33	22
Walters	52.0	83	12	16	6	417	13	.71	.28	28
Apache	49.4	81	24	16	6	485	2	1.67	1.04	12
Grandfield	51.5	86	24	18	6	431	11	.52	.25	28
Pauls Valley	52.9	81	15	19	6	385	10	2.09	.80	18
Ringling	52.3	80	27	21	6	400	8	1.00	.68	18
Sulphur	*****	***	***	***	***	****	****	*****	*****	***
Tishomingo	52.7	79	31	20	6	387	4	1.28	.64	18
Waurika	*****	***	***	***	***	****	****	*****	*****	***
Vanoss	52.1	79	12	18	6	410	10	1.82	.79	18
Bee	53.3	79	31	22	6	368	6	1.32	.66	18
Newport	53.0	80	31	20	6	379	6	1.63	1.08	18
Mt Herman	52.1	75	12	23	6	400	0	2.18	1.46	18
Talihina	52.7	79	12	23	30	385	3	2.24	1.92	18
Wilburton	*****	***	***	***	***	****	****	*****	*****	***
Wister	50.5	78	24	20	6	450	0	1.92	1.21	18

EXTREME VALUES OF TEMPERATURE AND PRECIPITATION IN EACH CLIMATE DIVISION MARCH 2003

CD	MAX TEMP	DATE	LOCATION	MIN TEMP	DATE	LOCATION	24-HOUR PRECIP	DATE	LOCATION	MONTHLY PRECIP	LOCATION
1	86	16	BEAVER	12	29	HOOKER	1.03	19	HOOKER	1.83	FARGO
2	84	15	FREEDOM	11	5	FT SUPPLY	2.33	18	BRAMAN	3.82	RED ROCK
3	83	24	BARTLESVILLE	14	6	MANNFORD	3.34	19	BARTLESVILLE	4.79	PAWHUSKA
	83	24	MANNFORD								
4	90	13	ELK CITY	13	6	HAMMON	1.50	20	CORDELL	2.08	CORDELL
				13	6	TALOGA					
5	87	13	BLANCHARD	12	6	GUTHRIE	2.52	18	SHAWNEE	5.19	INGALLS
				12	7	GUTHRIE					
6	86	24	CHECOTAH	19	5	HOLDENVILLE	2.94	19	OKTAHA	4.13	DEWAR
				19	6	WEBBERS FALL					
7	88	24	HOLLIS	14	6	ANADARKO	1.10	13	APACHE	2.05	LOOKEBA
	88	25	MANGUM	14	6	WICHITA MT					
8	83	24	WAURIKA	15	6	MARLOW	1.97	19	DAISY	3.40	LINDSAY
	83	27	WAURIKA								
9	82	25	IDABEL	19	29	BATTIEST	2.73	18	WILBURTON	3.96	WILBURTON

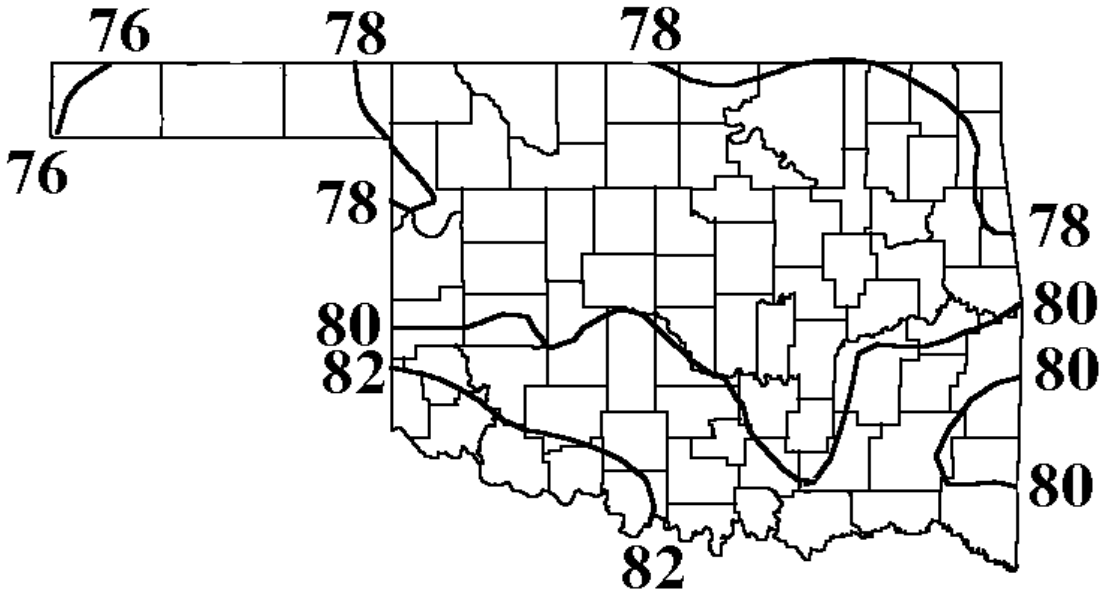
TABLE OF 2002/2003 COMPARISONS

	FEBRUARY Temperature (F)		FEBRUARY Precipitation (in.)	
Station	**2002**	**2003**	**2002**	**2003**
Arnett	41.7	46.4	0.02	1.42
Enid	44.7	47.2	0.63	1.79
Tulsa	47.4	49.6	2.40	3.25
Elk City	45.0	47.6	0.46	0.79
Oklahoma City	46.0	49.5	2.24	2.31
McAlester	49.7	51.9	6.15	2.53
Altus Irr Station	47.2	50.7	1.68	0.63
Ardmore	51.4	54.8	4.05	1.47
Idabel	50.7	54.4	10.83	3.16

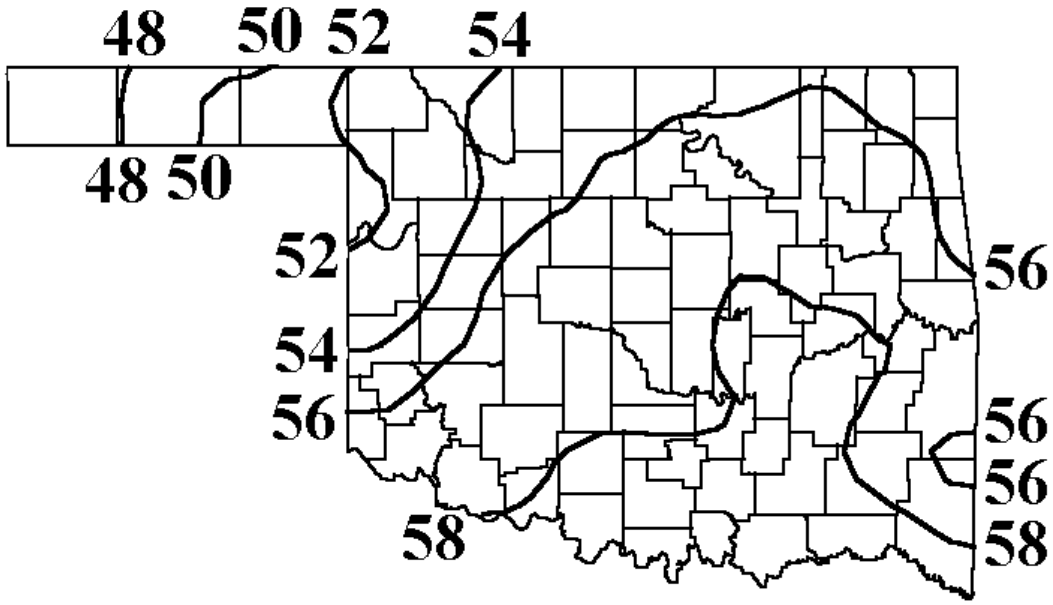
MARCH 2003 STATEWIDE EXTREMES

VARIABLE	STATION	DIVISION	OBSERVATION	DATE
Minimum temperature (F)	FT. Supply	2	11	5
Maximum temperature (F)	Elk City	4	90	13
Maximum 24-hour Precipitation	Bartlesville	19	3.34	19

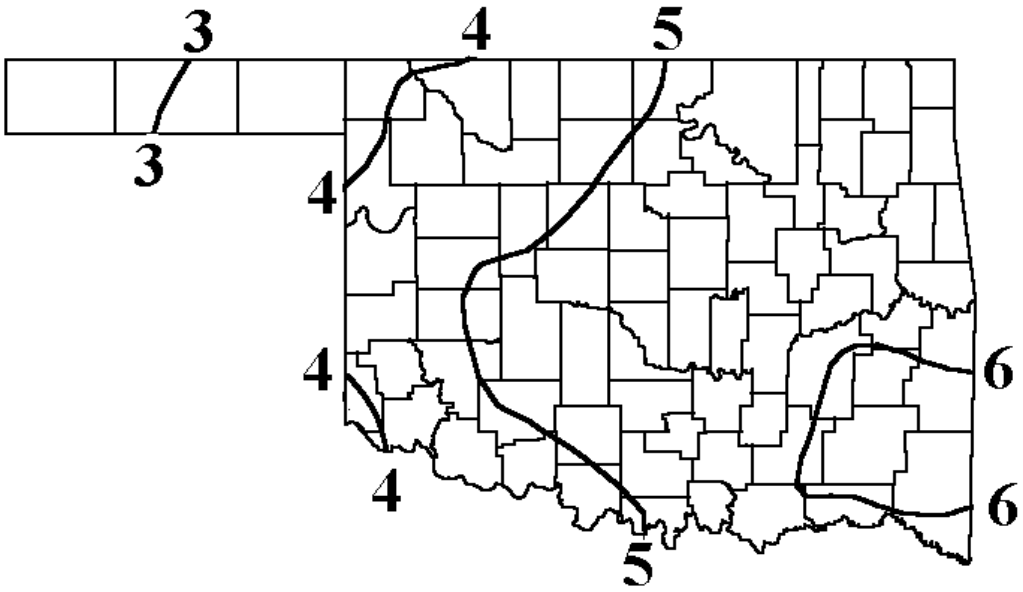
MAY NORMAL DAILY MAXIMUM TEMPERATURE (°F)



MAY NORMAL DAILY MINIMUM TEMPERATURE (°F)



MAY NORMAL MONTHLY PRECIPITATION (INCHES)



MAY TORNADO STATISTICS

The most tornadoes reported in **MAY** for Oklahoma was **(91)** in **1999**.

The average number of tornadoes in **MAY** for Oklahoma is **(20)**.

OUTLOOK FOR MAY 2003 THROUGH JULY 2003

BASED ON SEASONAL OUTLOOK PROVIDED BY THE CLIMATE PREDICTION CENTER

Temperature: Above Normal Temperature Statewide

Precipitation: Near Normal Precipitation Statewide

OKLAHOMA CITY CLIMATE CALENDAR

MAY

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	64	76		93	1948	53	1966	53		66	1938	33	1909	0.13		1.63	1954
2	65	76		94	1943	51	1994	54		69	1959	39	1961	0.14		2.99	1990
3	65	76		95	1920	49	1978	54		70	1949	32	1954	0.14		3.58	1898
4	65	76		93	1955	44	1935	54		72	1950	34	1907	0.15		3.60	1898
5	66	76		94	1940	50	1935	55		69	1940	37	1917	0.15		4.24	1899
6	66	77		92	1918	48	1908	55		70	1986	37	1944	0.16		2.61	1930
7	66	77		93	1955	55	1893	55		71	1927	39	1917	0.16		2.27	1892
8	66	77		96	1918	50	1943	55		70	1927	37	1917	0.16		6.64	1993
9	66	77		93	1895	55	1943	56		70	1963	40	1923	0.16		3.37	1943
10	67	78		96	1967	53	1954	56		71	1963	40	1924	0.17		4.71	1950
11	67	78		94	1923	54	1954	56		73	2000	37	1981	0.17		2.85	1920
12	67	78		93	1992	55	1914	56		72	1956	39	1979	0.17		2.26	1982
13	68	78		95	1984	49	1953	57		69	1991	39	1971	0.17		2.58	1983
14	68	78		92	1952	55	1934	57		70	1998	41	1953	0.17		2.48	1986
15	68	79		90	1966	48	1945	57		72	1999	38	1907	0.18		3.59	1920
16	68	79		92	1966	56	1920	58		75	1974	42	1945	0.18		1.81	1986
17	69	79		96	1966	61	1986	58		74	1974	40	1945	0.18		3.17	1951
18	69	79		95	1956	59	1943	58		72	1996	45	1976	0.18		1.92	2001
19	69	80		96	1973	61	1943	59		72	1996	40	1894	0.18		3.35	1955
20	69	80		94	1990	63	1942	59		74	1902	43	1981	0.18		2.74	1979
21	69	80		95	1953	56	1968	59		73	1953	42	1892	0.18		2.81	1922
22	70	81		98	2000	57	1892	59		74	1953	42	2001	0.18		3.09	1952
23	70	81		100	2000	60	1963	60		76	1996	42	1892	0.18		4.16	1908
24	70	81		98	2000	59	1995	60		74	1996	42	1935	0.18		4.06	1903
25	71	81		93	1990	59	1995	60		72	1965	45	2001	0.18		1.49	1968
26	71	82		96	1953	58	1950	61		74	1916	45	1901	0.18		3.22	1995
27	72	82		96	1927	59	1893	61		74	1912	42	1907	0.18		5.38	1987
28	72	82		93	1895	52	1992	61		71	1942	43	1947	0.18		2.33	1987
29	72	82		94	1985	57	1902	62		73	1989	39	1947	0.18		5.63	1970
30	72	83		104	1985	64	1915	62		74	1974	45	1947	0.18		2.79	2001
31	73	83		98	1934	54	1903	62		74	1991	44	1983	0.17		2.14	1892
MONTH	**68.4**	**79.1**		**104**	**1985**	**44**	**1935**	**57.7**		**76**	**1996**	**32**	**1954**	**5.22**		**6.64**	**1993**

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

TULSA CLIMATE CALENDAR

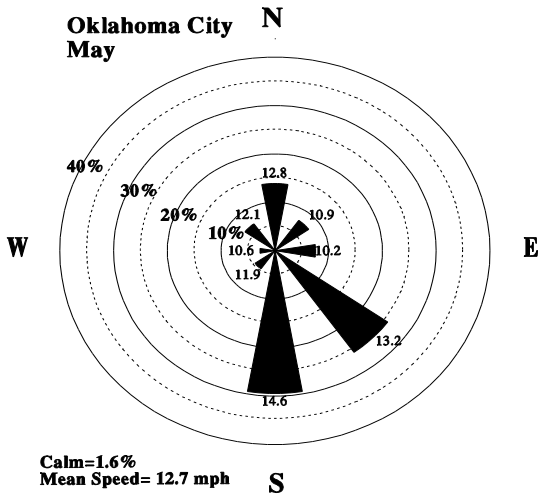
MAY

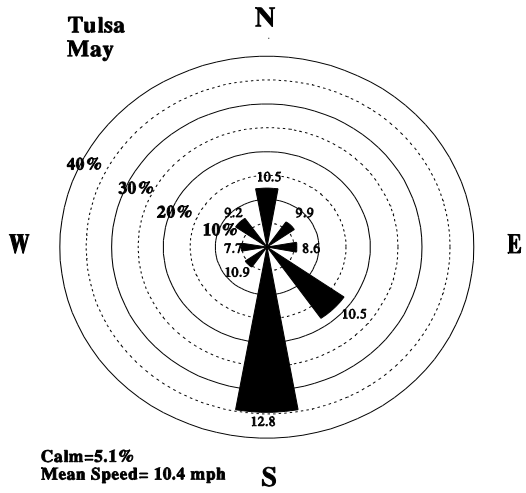
The data on this calendar are for Tulsa, Oklahoma.
Normal values are calculated for the period 1971-2000.
Temperature extremes are for the period 1905-2001.
Precipitation extremes are for the period 1888-2001.

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	66	77		89	1948	53	1966	55		71	1936	32	1909	0.16		2.10	1944
2	66	77		94	1943	50	1994	55		69	1959	32	1909	0.16		1.70	1980
3	66	77		96	1920	52	1978	55		69	2001	36	1976	0.16		2.19	1979
4	66	77		96	1920	51	1935	55		72	1950	36	1954	0.17		2.30	1999
5	67	77		92	1952	51	1935	56		71	1964	36	1907	0.17		2.88	1913
6	67	77		90	1952	59	1944	56		71	1986	36	1944	0.17		2.83	2000
7	67	78		93	1918	52	1910	56		72	2000	40	1931	0.17		4.09	1995
8	67	78		97	1918	53	1943	56		71	1996	37	1938	0.18		3.66	1961
9	67	78		93	1918	61	1924	57		72	1948	38	1923	0.18		6.15	1943
10	68	78		93	1963	54	1924	57		71	1963	41	1909	0.18		4.36	1950
11	68	78		94	1980	58	1912	57		74	1956	39	1924	0.18		2.83	1992
12	68	79		91	1992	57	1939	57		75	1956	40	1960	0.18		4.05	1982
13	69	79		93	1911	51	1953	58		72	1991	41	1971	0.18		4.47	1933
14	69	79		93	1911	54	1907	58		71	1998	44	1976	0.18		2.51	1956
15	69	79		95	1911	52	1945	58		72	1996	35	1907	0.19		2.05	1910
16	69	80		94	1931	52	1945	59		74	1974	40	1907	0.19		1.40	1943
17	69	80		94	1911	65	1935	59		76	1974	40	1945	0.19		1.89	1928
18	70	80		94	1987	65	1952	59		74	1996	45	1976	0.19		2.48	1960
19	70	80		94	1911	65	1981	60		74	1996	46	1968	0.19		3.91	1949
20	70	80		94	1956	64	1967	60		71	1982	42	1981	0.19		2.50	1902
21	71	81		95	1925	56	1968	60		73	1962	45	1915	0.19		1.90	1978
22	71	81		93	1953	56	1917	61		77	1953	44	1931	0.19		2.10	1902
23	71	81		94	2000	62	1963	61		75	1953	41	1917	0.19		1.47	1947
24	71	82		94	1911	63	1956	61		75	1996	42	1935	0.19		3.16	1908
25	72	82		94	1911	64	1995	61		75	1996	45	1925	0.19		1.80	1974
26	72	82		94	1926	60	1992	62		73	1916	44	1925	0.19		2.40	1984
27	72	82		94	1911	65	1992	62		75	1912	45	1961	0.18		6.95	1984
28	72	83		94	1926	53	1992	62		73	1991	45	1947	0.18		2.08	1905
29	72	83		98	1926	62	1947	62		76	1989	40	1947	0.18		1.60	1903
30	73	83		98	1934	59	1964	63		76	1989	45	1947	0.18		2.71	1976
31	73	83		100	1934	63	1907	63		77	1991	49	1930	0.18		2.50	1926
MONTH	**69.3**	**79.71**		**100**	**1934**	**50**	**1994**	**58.74**		**77**	**1991**	**32**	**1909**	**0.18**		**6.95**	**1984**

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

MAY WIND ROSES





May 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.

MAY SUNRISE/SUNSET TIMES FOR 2003

ALL TIMES ARE CENTRAL STANDARD TIME

OKLAHOMA CITY			TULSA		
DATE	SUNRISE	SUNSET	DATE	SUNRISE	SUNSET
5/1/03	5:39 AM	7:16 PM	5/1/03	5:31 AM	7:11 PM
5/2/03	5:38 AM	7:17 PM	5/2/03	5:30 AM	7:12 PM
5/3/03	5:37 AM	7:18 PM	5/3/03	5:29 AM	7:13 PM
5/4/03	5:36 AM	7:07 PM	5/4/03	5:28 AM	7:14 PM
5/5/03	5:35 AM	7:07 PM	5/5/03	5:27 AM	7:14 PM
5/6/03	5:34 AM	7:20 PM	5/6/03	5:26 AM	7:15 PM
5/7/03	5:33 AM	7:21 PM	5/7/03	5:25 AM	7:16 PM
5/8/03	5:32 AM	7:22 PM	5/8/03	5:24 AM	7:17 PM
5/9/03	5:31 AM	7:23 PM	5/9/03	5:23 AM	7:18 PM
5/10/03	5:30 AM	7:24 PM	5/10/03	5:22 AM	7:19 PM
5/11/03	5:29 AM	7:24 PM	5/11/03	5:21 AM	7:19 PM
5/12/03	5:28 AM	7:25 PM	5/12/03	5:20 AM	7:20 PM
5/13/03	5:27 AM	7:26 PM	5/13/03	5:20 AM	7:21 PM
5/14/03	5:27 AM	7:27 PM	5/14/03	5:19 AM	7:22 PM
5/15/03	5:26 AM	7:28 PM	5/15/03	5:18 AM	7:23 PM
5/16/03	5:25 AM	7:28 PM	5/16/03	5:17 AM	7:24 PM
5/17/03	5:24 AM	7:29 PM	5/17/03	5:16 AM	7:24 PM
5/18/03	5:24 AM	7:30 PM	5/18/03	5:16 AM	7:25 PM
5/19/03	5:23 AM	7:31 PM	5/19/03	5:15 AM	7:26 PM
5/20/03	5:22 AM	7:32 PM	5/20/03	5:14 AM	7:27 PM
5/21/03	5:22 AM	7:32 PM	5/21/03	5:14 AM	7:27 PM
5/22/03	5:21 AM	7:33 PM	5/22/03	5:13 AM	7:28 PM
5/23/03	5:20 AM	7:34 PM	5/23/03	5:12 AM	7:29 PM
5/24/03	5:20 AM	7:34 PM	5/24/03	5:12 AM	7:30 PM
5/25/03	5:19 AM	7:35 PM	5/25/03	5:11 AM	7:30 PM
5/26/03	5:19 AM	7:36 PM	5/26/03	5:11 AM	7:31 PM
5/27/03	5:18 AM	7:37 PM	5/27/03	5:10 AM	7:32 PM
5/28/03	5:18 AM	7:37 PM	5/28/03	5:10 AM	7:33 PM
5/29/03	5:17 AM	7:38 PM	5/29/03	5:09 AM	7:33 PM
5/30/03	5:17 AM	7:39 PM	5/30/03	5:09 AM	7:34 PM
5/31/03	5:17 AM	7:39 PM	5/31/03	5:08 AM	7:35 PM

ADD ONE HOUR FOR CENTRAL DAYLIGHT TIME

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