

**OKLAHOMA
MONTHLY SUMMARY
REVISED
MARCH 1999**

TABLE OF CONTENTS

March 1999 Oklahoma Summary.....	2
Table of March 1998/1999 Comparisons.....	5
March 1999 Data Summary Tables.....	6
March 1999 Mesonet Summary.....	11
March 1999 State Map Summary.....	12
March Climatological Normals.....	15
90 - Day National Weather Service Outlook.....	16
May Wind Roses – May 1999 Sunrise/Sunset Tables.....	17
Explanation of Tables.....	18
May Oklahoma City Climate Calendar.....	20
May Tulsa Climate Calendar.....	21

MONTHLY SUMMARY FOR MARCH 1999

March 1999 was generally cooler and wetter than normal across Oklahoma. According to preliminary data from the National Weather Service, the statewide-averaged precipitation for the month was 4.09 inches, 1.28 inches greater than normal, to rank this as the 13th wettest March since 1892. The monthly temperature of 48.5 degrees, derived by averaging daily temperatures from throughout the state, was 2.2 degrees lower than normal, making this the 35th coolest over 108 years of records. The statewide precipitation total thus far in 1999 is 7.16 inches, 1.35 inches greater than normal, to rank this year-to-date as the 23rd wettest similar period on record. Temperatures through the first three months of the year averaged 45.6 degrees (2.8 degrees greater than normal) to provide this year with the 22nd warmest January-through-March period ever recorded in Oklahoma.

A small, but spectacular, tornado destroyed a home in the Tiger Mountain community east of Henryetta in McIntosh County on the 8th and then moved erratically eastward, generally along Interstate 40 to near Checotah (McIntosh) where it dissipated. There was one injury and several structures were damaged. Small tornadoes were also noted near Claremore (Rogers) and Broken Arrow (Tulsa) on the 8th.

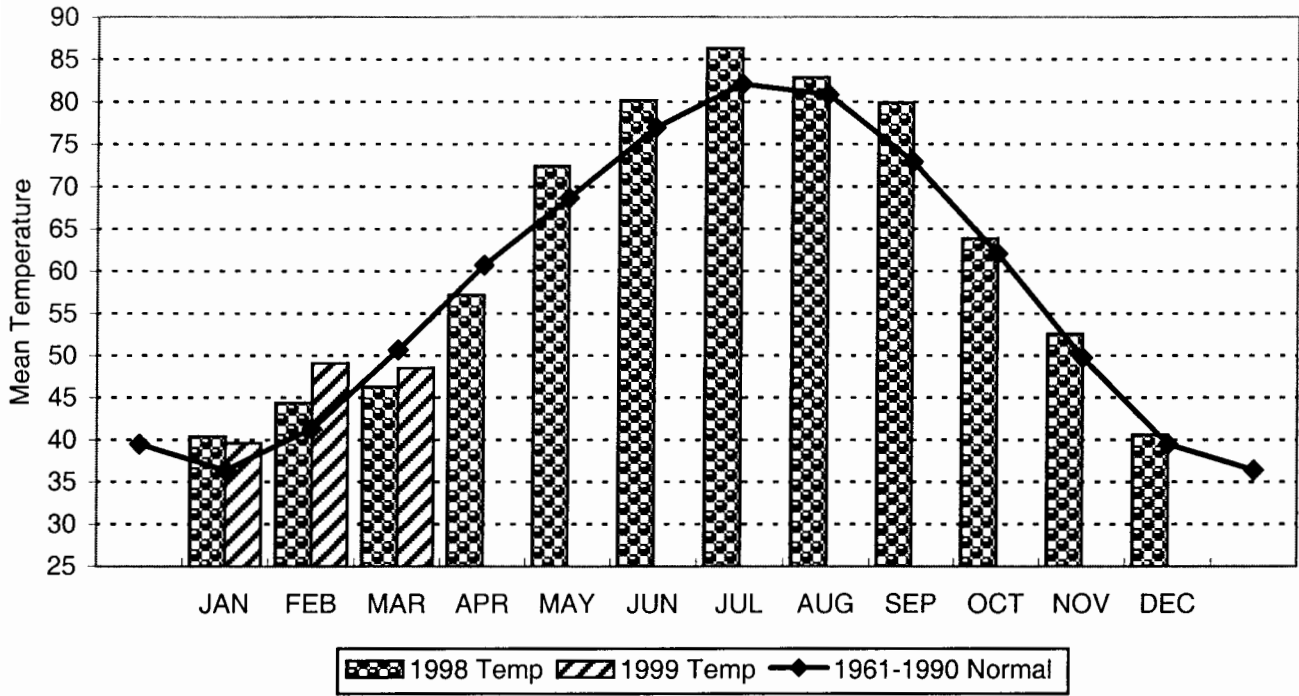
Outdoor burning restrictions that were in place at the beginning of the month were dropped statewide by the 10th when widespread rains provided much needed moisture. Even with the restrictions, an estimated 33 wildfires were reported in Pushmataha, Choctaw, and Atoka counties from the 3rd through the 10th.

A late-season winter storm moved through the state on the 12th and 13th, producing substantial snow across northern and most of central Oklahoma and rain elsewhere. Medford (Grant County) was the hardest-hit community, receiving 19 inches of snow. Other locations reporting a foot or more of snow included: Cherokee (Alfalfa) and Miami (Ottawa) 15 inches; Bristow (Creek), Vinita (Craig), Gate (Beaver), Enid (Garfield), and Great Salt Plains Dam (Alfalfa) 14 inches; Helena (Alfalfa) 13 inches, and Hooker (Texas), Lenapah (Nowata), and Chelsea (Mayes) each with 12 inches. Fourteen deaths (13 traffic-related and one drowning) were blamed on the snow, sleet and cold weather.

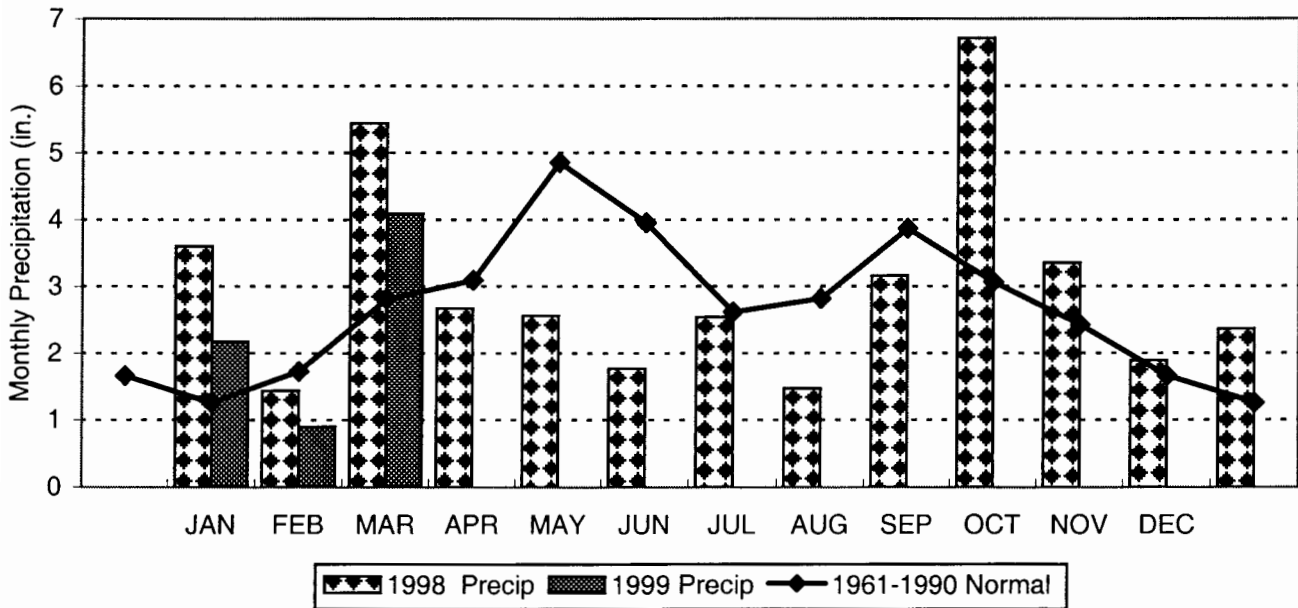
Another winter storm produced a foot of snow in Cimarron County on the 18th (12 inches reported at Regnier and 11 inches at Boise City). The effects were hardly felt east of the central Panhandle.

Howard L. Johnson

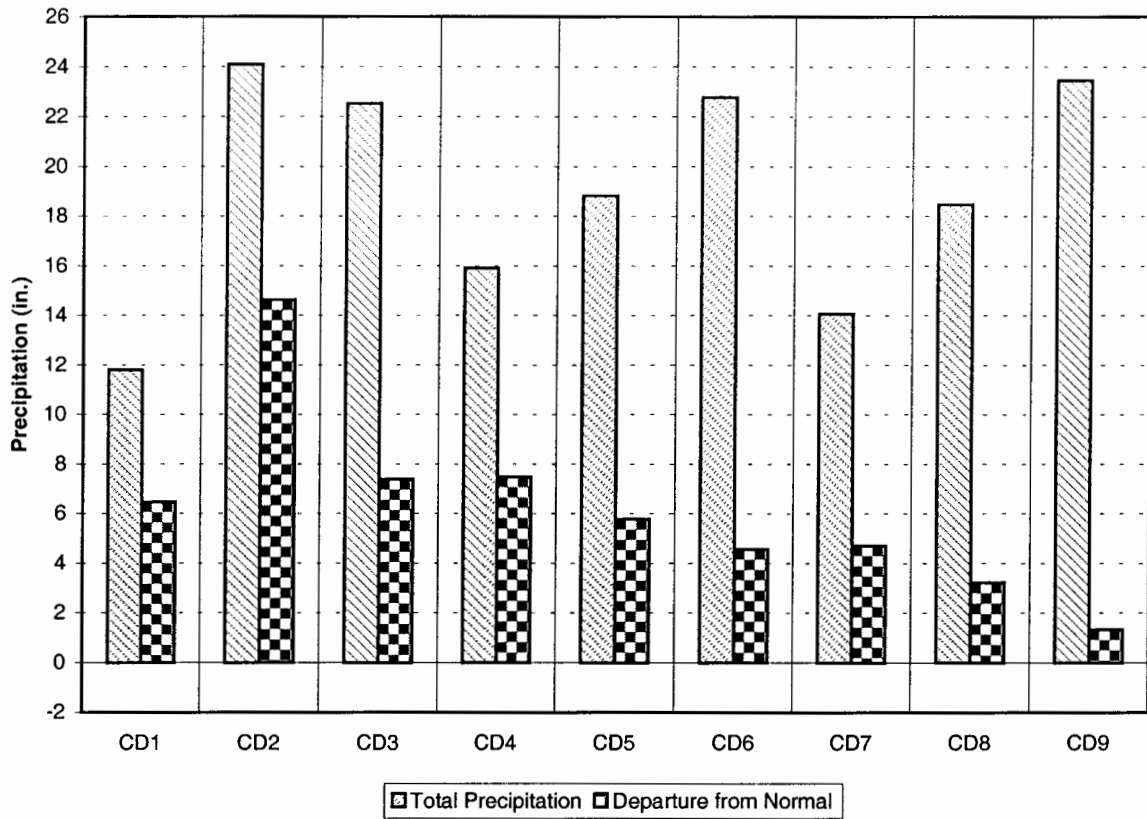
1998 and 1999 STATEWIDE TEMPERATURES Monthly Averages



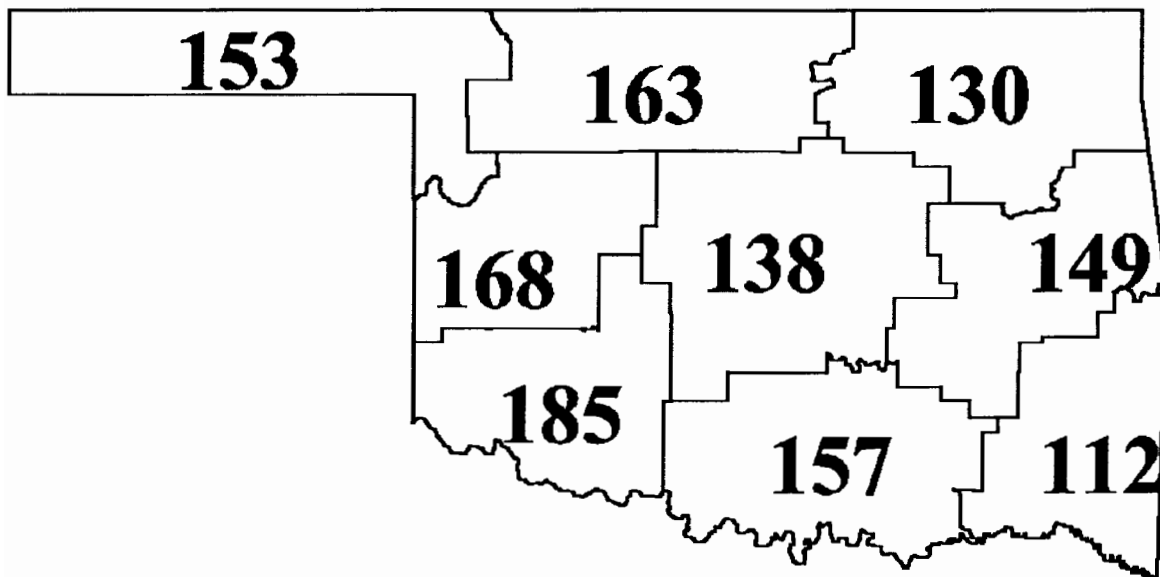
1998 and 1999 STATEWIDE PRECIPITATION Monthly Totals



CD Averaged Precipitation October 1998 through March 1999



CD PERCENT OF NORMAL PRECIPITATION March 1999



**EXTREME VALUES OF TEMPERATURE AND PRECIPITATION IN EACH CLIMATE DIVISION
MARCH, 1999**

CD	MAX TEMP	DATE	LOCATION	MIN TEMP	DATE	LOCATION	24-HOUR PRECIP	DATE	LOCATION	MONTHLY PRECIP	LOCATION
1	86	3	GOODWELL	11	15	TURPIN	1.28	13	GATE	3.40	GATE
2	83 83 83	2 1 2	ALVA WAYNOKA WAYNOKA	13	2	FT SUPPLY	2.39	14	BRAMAN	5.37	CHEROKEE
3	80 80	1 1	BARTLESVILLE MANNFORD	20 20	14 15	CLEVELAND VINITA	4.00	14	BIXBY	6.10	VINITA
4	81 81 81	23 23 2	ELK CITY ERICK TALOGA	22 22 22	14 14 15 14	CANTON DAM REYDON REYDON TALOGA	1.65 1.65	13 12	CANTON DAM WEATHERFORD	5.04	OKEENE
5	82	2	CHANDLER	19	3	STILLWATER	2.08	13	ARCADIA	5.15	GUTHRIE
6	82 82	2 3	HOLDENVILLE HOLDENVILLE	22 22 22	14 16 15	STILWELL STILWELL TAHLEQUAH	2.93	13	MARBLE CITY	7.13	MCCURTAIN
7	85	22	HOLLIS	23 23 23	15 15 16	ANADARKO WICHITA MT WICHITA MT	1.87	12	CARNEGIE	5.86	RANDLETT
8	82	1	WAURIKA	23 23 23 23	15 15 16 15	CHICKASAW MARIETTA MARIETTA MARLOW	3.47	8	TISHOMINGO	6.83	LOCO
9	80 80 80	6 10 1	BOSWELL PAGE TUSKAHOMA	21 21	4 5	SMITHVILLE SMITHVILLE	3.80	13	SMITHVILLE	6.77	POTEAU

TABLE OF 1998/1999 COMPARISONS

**MARCH
Temperature (°F)**

**MARCH
Precipitation (in.)**

Station	1998	1999	1998	1999
Arnett	39.9	43.8	4.49	2.02
Enid	42.7	45.5	5.74	3.53
Tulsa	76.6	48.8	7.34	3.56
Elk City	43.2	47.1	4.47	2.39
Oklahoma City	47.3	49.8	6.45	3.45
McAlester	50.2	51.0	4.21	4.67
Altus Irr Station	47.5	49.5	4.24	2.76
Ardmore	50.8	52.0	5.68	4.24
Idabel	51.7	51.5	4.06	3.45

**EXTREMES
DIVISION**

VARIABLE	STATION	OBSERVATION	DATE
Minimum temperature (°F)	Turpin	11	15
Maximum temperature (°F)	Goodwell	86	3
Maximum 24-hour Precipitation	Bixby	4.00"	14

MARCH 1999 SUMMARY FOR PANHANDLE DIVISION (CD1)

NAME	ID	CD	DEV					HEAT		DEV		COOL		DEV		TOT	NUM	DEV	
			MEAN	NUM	FROM	MAX	MIN	DEG	FROM	DEG	FROM	DEG	FROM	FROM	MAX			24-HR	DAY
ARNETT	332	1	43.8	31	-2	77	2	19	15	656	61	0	0	2.021	31	0.39	0.58	8	
BEAVER	593	1	42.5	31	-2.1	79	17	13	14	698	66	0	0	2.430	31	0.98	0.73	8	
BOISE CITY	908	1	45.6	31	0.3	84	31	16	14	600	-11	0	0	1.551	31	0.67	0.60	18	
BUFFALO	1243	1	47.7	31	-1.3	81	31	18	14	536	30	1	-10	2.350	31	0.49	1.20	19	
FARGO	3070	1	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.081	31	-0.55	0.61	8	
GAGE	3407	1	45.2	31	-2.8	80	31	20	14	615	81	1	-7	2.223	31	0.71	0.83	13	
GATE	3489	1	43.9	31	-1.9	79	2	16	14	656	54	0	-7	3.403	31	1.72	1.28	13	
GOODWELL	3628	1	44.5	31	0.6	86	3	15	14	634	-20	0	0	1.800	31	0.93	0.70	19	
GUYMON	3835	1	44.8	31	*****	83	31	14	14	628	*****	0	*****	1.101	31	*****	0.90	21	
HOOKER	4298	1	45.0	31	-0.9	83	31	12	14	621	29	0	0	2.700	31	1.54	0.81	12	
KENTON	4766	1	45.6	31	2.6	80	31	17	14	600	-82	0	0	2.020	31	1.24	1.00	18	
LAVERNE	5045	1	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.732	31	0.03	0.52	19	
RANGE	7412	1	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.042	31	*****	1.18	6	
REGNIER	7534	1	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.550	31	0.82	0.53	19	
TURPIN	9017	1	41.9	31	*****	77	17	11	15	716	*****	0	*****	2.400	31	*****	0.77	19	

MARCH 1999 SUMMARY FOR NORTH CENTRAL DIVISION (CD2)

NAME	ID	CD	DEV					HEAT		DEV		COOL		DEV		TOT	NUM	DEV	
			MEAN	NUM	FROM	MAX	MIN	DEG	FROM	DEG	FROM	DEG	FROM	FROM	MAX			24-HR	DAY
ALVA	193	2	46.0	31	*****	83	2	21	14	589	*****	0	*****	3.040	31	*****	1.13	13	
VANCE AFB	302	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.633	31	*****	1.23	13	
BILLINGS	755	2	45.2	31	-2.6	76	2	14	15	613	72	0	-8	4.820	31	2.13	1.45	13	
BLACKWELL 2E	818	2	45.5	31	-2.6	77	2	23	15	605	75	0	-6	3.702	31	1.30	1.19	13	
BRAMAN	1075	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.321	31	*****	2.39	14	
CEDARDALE	1620	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.620	31	*****	1.32	13	
CHEROKEE	1724	2	44.2	29	*****	80	2	18	14	604	*****	0	*****	5.370	29	****	2.25	14	
ENID	2912	2	45.5	31	-4.4	78	2	23	15	604	126	0	-10	3.530	31	1.24	0.90	13	
FT SUPPLY	3304	2	44.2	30	-1.8	80	31	13	2	628	32	3	-5	3.020	30	*****	1.00	12	
FREEDOM	3358	2	45.3	31	-3.4	79	1	18	13	613	98	2	-8	2.790	31	0.93	1.39	12	
GREAT SALT P	3740	2	46.2	31	-0.8	81	2	19	15	584	20	0	-6	3.271	31	0.91	1.30	13	
HARDY	3909	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.420	31	*****	1.14	13	
HELENA	4019	2	44.9	31	-1.4	80	2	18	15	624	44	0	0	4.111	31	1.72	1.85	13	
JEFFERSON	4573	2	47.5	31	-1.6	80	1	15	15	541	41	0	-7	3.531	31	0.94	1.26	12	
LAMONT	5013	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.620	31	*****	1.64	13	
MEDFORD	5768	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.682	31	*****	1.94	13	
MORRISON	6065	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.670	31	*****	1.36	13	
MUTUAL	6139	2	44.1	31	-2.1	80	2	21	14	649	66	0	0	2.950	31	0.89	1.24	13	
NEWKIRK	6278	2	44.0	31	-4.8	76	2	22	14	650	138	0	-10	5.021	31	2.65	1.47	13	
ORIENTA	6751	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.631	31	0.54	1.13	13	
PERRY	7012	2	47.5	31	-3	78	2	20	16	542	78	0	-14	3.420	31	0.71	1.67	13	
PONCA CITY	7201	2	48.7	31	0.8	77	1	26	15	505	-34	0	-8	4.312	31	1.78	1.49	13	
RED ROCK	7505	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.430	30	*****	1.50	12	
WAYNOKA	9404	2	47.1	30	-2.3	83	2	20	14	536	42	0	-10	3.030	30	*****	1.80	12	
WOODWARD	9760	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.732	31	0.91	0.79	19	

MARCH 1999 SUMMARY FOR NORTHEAST DIVISION (CD3)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV		MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV		DAY	
					FROM NORM	MAX TEMP									FROM NORM	MAX 24-HR		
BARNSDALL	535	3	48.0	31	-2.1	78	1	22	15	526	54	0	-10	3.626	31	-0.07	1.10	13
BARTLESVILLE	548	3	47.5	31	-2.7	80	1	22	15	541	73	0	-9	4.623	31	1.37	1.00	13
BIXBY	782	3	47.7	29	*****	79	2	26	16	501	*****	0	*****	5.872	29	*****	4.00	14
BURBANK	1256	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.991	31	1.00	1.03	12
CHELSEA	1717	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.900	31	*****	1.27	13
CLAREMORE	1828	3	46.7	31	-1.3	77	2	24	16	567	35	0	-5	4.790	31	1.21	1.33	13
CLEVELAND 2	1902	3	46.9	21	*****	76	1	20	14	380	*****	0	*****	3.790	22	*****	1.25	13
FORAKER	3250	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.030	31	0.21	0.92	13
HOLLOW	4258	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.081	31	0.40	1.08	8
HOMINY	4289	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.372	31	-0.07	1.15	13
KANSAS	4672	3	49.2	31	-1.2	75	1	21	15	491	27	0	-12	5.243	31	1.07	1.30	9
LENAPAH	5118	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.450	31	*****	1.26	8
MANNFORD	5522	3	49.7	30	-1.2	80	1	22	15	460	12	0	-11	3.872	30	*****	1.23	14
MARAMEC	5540	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.251	31	1.05	1.28	13
NOWATA	6485	3	49.9	29	*****	79	1	21	15	438	*****	0	*****	3.980	30	*****	1.25	8
PAWHUSKA	6935	3	48.1	31	-1.5	78	4	23	15	525	39	0	-9	5.030	31	1.78	1.85	14
PAWNEE	6940	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.990	31	1.90	1.34	13
PRYOR	7309	3	49.8	23	*****	76	2	26	7	351	*****	0	*****	1.343	24	*****	0.64	8
RALSTON	7390	3	48.9	31	-1.1	78	1	22	15	499	27	0	-7	4.925	31	1.85	1.25	14
SKIATOOK	8258	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.110	31	1.83	1.43	14
SPAVINAW	8380	3	50.6	31	-0.6	77	1	25	15	446	6	0	-12	5.824	31	2.24	1.39	13
TULSA	8992	3	48.8	31	-1.8	78	1	26	15	504	47	0	-11	3.555	31	0.09	1.33	12
UPPER SPAV	9101	3	49.2	31	*****	75	30	25	15	489	*****	0	*****	4.853	31	*****	1.48	13
VINITA	9203	3	48.5	30	-0.4	76	2	20	15	494	-13	0	-7	6.101	30	*****	2.17	14
WAGONER	9247	3	49.7	31	-2	78	1	23	14	475	50	0	-13	3.840	31	0.27	1.93	12
WANN	9298	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.292	31	*****	1.35	14
WYNONA	9792	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.073	31	*****	1.24	13

MARCH 1999 SUMMARY FOR WEST CENTRAL DIVISION (CD4)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV		MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV		DAY	
					FROM NORM	MAX TEMP									FROM NORM	MAX 24-HR		
CANTON DAM	1445	4	45.9	31	-1.5	80	2	22	14	593	42	0	-6	4.340	31	2.26	1.65	13
COLONY	2039	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.830	31	*****	1.55	13
CORDELL	2125	4	47.0	31	-3.6	77	3	27	15	559	106	0	-7	3.491	31	1.54	1.18	13
ELK CITY	2849	4	47.1	31	-2.9	81	23	24	15	555	83	0	-7	2.390	31	0.35	0.71	13
ERICK	2944	4	48.0	30	-2.2	81	23	26	15	509	44	0	-6	2.582	31	0.88	0.75	12
GEARY	3497	4	47.4	29	*****	79	2	23	15	512	*****	0	*****	4.070	29	*****	1.25	13
HAMMON	3871	4	45.9	31	-1.5	80	2	24	15	593	42	0	-6	3.190	31	1.30	1.18	13
LEEDEY	5090	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.340	31	0.62	0.67	19
MACKIE	5463	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.270	31	*****	0.80	12
MORAVIA	6035	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.802	31	0.99	0.95	13
OKEENE	6629	4	48.6	31	-1.9	80	1	23	14	508	50	0	-9	5.040	31	2.90	1.58	13
RETROP	7565	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.140	31	*****	1.23	13
REYDON	7579	4	45.9	24	*****	78	2	22	15	458	*****	0	*****	2.471	24	*****	1.50	12
SAYRE	7952	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.502	31	0.97	0.87	12
SWEETWATER	8652	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.000	31	*****	0.60	19
TALOGA	8708	4	45.1	31	-3.8	81	2	22	14	617	111	0	-7	3.373	31	1.46	1.55	13
THOMAS	8815	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.650	31	*****	1.62	13
VICI	9172	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.350	31	1.12	1.20	12
WATONGA	9364	4	48.3	31	-1.3	80	1	23	14	519	35	0	-7	4.080	31	1.87	1.61	13
WEATHERFORD	9422	4	46.7	31	-1.3	77	1	24	13	569	42	0	0	3.691	31	1.78	1.65	12

MARCH 1999 SUMMARY FOR CENTRAL DIVISION (CD5)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV			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
					FROM NORM	MAX TEMP	DAY											
AMBER	200	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.080	31	*****	0.86	8
ARCADIA	288	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.071	31	*****	2.08	13
BLANCHARD	830	5	50.7	31	-1.8	79	1	27	15	444	43	0	-13	3.613	31	0.92	1.73	13
BRISTOW	1144	5	51.2	30	-0.5	80	1	21	15	415	-9	1	-12	2.830	30	*****	1.41	14
CHANDLER	1684	5	48.4	30	-3.3	82	2	24	15	499	75	0	-12	3.810	30	*****	1.60	13
CHICKASHA EXP	1750	5	50.7	31	-1.5	78	1	24	15	445	36	0	-12	4.320	31	1.82	1.96	13
COX CITY	2196	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.200	31	*****	1.53	13
CRESCENT	2242	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.000	31	*****	1.64	13
CUSHING	2318	5	47.4	30	-1.4	78	2	24	15	529	18	0	-9	4.341	30	*****	2.00	14
EDMOND	2788	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.381	31	*****	1.55	12
EL RENO	2818	5	47.8	31	-2.5	79	2	27	15	533	70	0	-8	3.610	31	1.27	1.40	13
GUTHRIE	3821	5	47.4	31	-3.9	79	5	20	15	546	110	0	-11	5.150	31	2.33	1.80	13
HENNESSEY	4055	5	47.0	31	-2.8	78	1	22	13	558	79	0	-8	4.260	31	1.91	1.85	13
INGALLS	4489	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.041	31	*****	1.17	7
KINGFISHER	4861	5	47.0	30	-3.9	79	2	24	15	540	94	0	-9	4.611	30	*****	1.65	13
KONAWA	4915	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.800	31	1.59	1.95	13
MARSHALL	5589	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.970	31	0.50	1.05	13
MEEKER	5779	5	45.8	29	*****	78	2	23	15	558	*****	0	*****	4.270	29	*****	1.49	13
MULHALL	6110	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.660	31	*****	1.29	8
NORMAN NWS	6386	5	49.2	31	-3.2	78	1	25	15	490	86	0	-13	3.573	31	0.68	1.81	12
OKEMAH	6638	5	52.0	31	0	79	1	29	15	404	-14	2	-12	4.580	31	1.43	1.28	13
OKLAHOMA CTY	6659	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.643	31	*****	1.48	13
OKLAHOMA CTY	6661	5	49.8	31	-0.5	78	1	26	15	472	8	0	-9	3.454	31	0.74	1.81	12
PERKINS	7003	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.170	31	1.27	1.47	13
PIEDMONT	7068	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.710	31	*****	1.36	13
PRAGUE	7264	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.381	31	1.20	1.60	13
PURCELL	7327	5	48.3	31	-4.2	79	2	22	16	519	119	0	-12	5.000	31	1.87	1.90	13
SEMINOLE	8042	5	48.7	31	-4.7	78	2	25	15	507	129	0	-18	3.561	31	0.29	1.01	27
SHAWNEE	8110	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.310	31	1.12	1.73	13
STELLA	8479	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.890	31	*****	1.60	13
STILLWATER	8501	5	47.3	31	-0.9	77	23	19	3	548	21	0	-6	4.581	31	1.79	1.50	13
STROUD	8563	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.432	31	*****	1.40	13
TECUMSEH	8751	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.960	31	*****	1.18	6
TROUSDALE	8960	5	48.7	30	*****	79	2	23	15	489	*****	0	*****	4.820	30	*****	1.70	13
UNION CITY	9086	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.790	31	0.88	1.62	13
WELTY	9479	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.570	31	*****	1.57	13
WEWOKA	9575	5	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.131	31	1.88	1.81	13

MARCH 1999 SUMMARY FOR EAST CENTRAL DIVISION (CD6)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV			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
					FROM NORM	MAX TEMP	DAY											
ASHLAND	364	6	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.181	31	*****	1.97	13
BEGGS	631	6	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.910	31	*****	1.59	13
CALVIN	1391	6	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.850	31	0.05	1.85	29
CHECOTAH	1711	6	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.652	31	2.95	1.85	13
CLAYTON	1858	6	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.620	31	*****	1.80	8
DEWAR	2485	6	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.321	31	1.77	1.75	13
DUSTIN	2690	6	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.680	31	*****	1.78	13
EUFULA	2993	6	52.2	31	-1.2	79	1	28	15	400	22	3	-16	6.780	31	2.61	2.00	8
HANNA	3884	6	50.9	31	-1.8	77	5	26	15	440	43	3	-13	6.021	31	1.95	1.83	13
HASKELL	3956	6	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.110	31	0.51	1.33	13
HOLDENVILLE	4235	6	49.9	31	-2.6	82	3	26	15	469	69	0	-12	4.780	31	1.44	1.71	18
LAKE EUFULA	4975	6	49.0	31	*****	75	23	27	15	496	*****	0	*****	6.342	31	*****	1.76	13
LYONS	5437	6	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.701	31	1.45	1.91	13
MARBLE CITY	5546	6	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.760	31	*****	2.93	13
MCALESTER	5664	6	51.0	31	-1.2	78	5	25	15	434	23	0	-14	4.666	31	0.67	1.86	12
MCCURTAIN	5693	6	51.6	31	-1.9	77	1	29	4	419	42	4	-17	7.132	31	3.02	2.00	13
MUSKOGEE	6130	6	49.7	31	-2.3	77	22	26	15	474	58	0	-13	5.085	31	1.54	2.31	12
OKMULGEE	6670	6	49.5	31	-0.1	80	1	27	15	480	-8	0	-9	5.043	31	1.59	2.00	12
OKTAHA	6678	6	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.180	31	*****	1.32	13
SALLISAW	7862	6	50.0	31	-2.3	76	2	28	15	466	60	0	-13	5.710	31	1.47	2.20	13
SCIPIO	7979	6	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.870	31	*****	1.85	13
SHORT	8170	6	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.590	31	*****	1.10	29
STILWELL	8506	6	48.0	31	-2.5	77	1	22	16	529	68	0	-11	5.850	31	1.57	1.33	13
TAHLEQUAH	8677	6	48.5	31	-2.6	77	1	22	15	511	68	0	-12	5.301	31	1.21	1.56	13
WEBBERS FALL	9445	6	47.5	21	*****	78	6	26	16	367	*****	0	*****	5.870	24	*****	1.93	13
WESTVILLE	9523	6	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.090	31	*****	1.71	13
WETUMKA	9571	6	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.432	31	2.83	1.63	13

MARCH 1999 SUMMARY FOR SOUTHWEST DIVISION (CD7)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV		MIN DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV		DAY
					FROM NORM	MAX TEMP										FROM NORM	MAX 24-HR	
ALTUS	179	7	49.5	31	-4	80	22	28	15	480	110	0	-14	2.760	31	1.20	0.87	13
ALTUS DAM	184	7	49.6	31	-1.2	80	23	30	15	478	29	0	-9	2.650	31	0.92	1.03	13
ANADARKO	224	7	47.2	31	-4.2	77	2	23	15	551	122	0	-7	3.930	31	1.76	1.49	13
APACHE	260	7	****	0	****	****	0	****	0	*****	*****	*****	*****	4.070	31	1.72	1.85	13
ALTUS AFB	447	7	****	0	****	****	0	****	0	*****	*****	*****	*****	2.861	29	****	1.13	19
CARNEGIE	1504	7	48.6	31	-2.8	78	1	26	13	507	77	0	-8	3.662	31	1.66	1.87	12
CHATTANOOGA	1706	7	49.1	28	****	81	2	26	15	444	*****	0	*****	4.340	28	****	1.38	13
DUNCAN 11 W	2668	7	****	0	****	****	0	****	0	*****	*****	*****	*****	3.111	31	****	1.22	19
FREDERICK	3353	7	50.7	28	****	80	23	30	17	401	*****	0	*****	4.520	28	****	1.51	12
HEADRICK	3998	7	****	0	****	****	0	****	0	*****	*****	*****	*****	2.970	31	****	0.98	13
HOBART	4204	7	48.0	29	****	78	1	26	3	494	*****	0	*****	1.503	29	****	1.18	19
HOLLIS	4249	7	50.4	31	-2.5	85	22	26	15	453	65	0	-12	2.330	31	0.95	0.57	19
LAWTON	5063	7	51.0	30	-0.3	79	2	30	14	421	-13	0	-10	4.422	30	****	1.47	13
LOOKEBA	5329	7	****	0	****	****	0	****	0	*****	*****	*****	*****	3.342	31	1.16	1.58	13
MANGUM	5509	7	50.3	27	****	82	2	26	1	397	*****	0	*****	1.340	27	****	0.62	19
RANDLETT	7403	7	****	0	****	****	0	****	0	*****	*****	*****	*****	5.860	31	****	1.79	13
ROOSEVELT	7727	7	****	0	****	****	0	****	0	*****	*****	*****	*****	3.200	31	1.47	1.14	19
SEDAN	8016	7	****	0	****	****	0	****	0	*****	*****	*****	*****	3.690	31	****	1.55	13
SNYDER	8299	7	****	0	****	****	0	****	0	*****	*****	*****	*****	4.180	31	2.39	1.52	19
VINSON	9212	7	****	0	****	****	0	****	0	*****	*****	*****	*****	3.011	31	1.54	0.82	12
WALTERS	9278	7	51.2	31	-2.8	81	2	27	16	427	69	0	-17	3.870	31	1.32	1.80	19
WICHITA MT	9629	7	48.5	31	-1.1	80	2	23	16	513	25	0	-11	4.230	31	1.83	1.60	19
WILLOW	9668	7	****	0	****	****	0	****	0	*****	*****	*****	*****	2.970	31	****	0.65	19

MARCH 1999 SUMMARY FOR SOUTH CENTRAL DIVISION (CD8)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV		MIN DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV		DAY
					FROM NORM	MAX TEMP										FROM NORM	MAX 24-HR	
ADA	17	8	50.6	31	-2.3	78	5	26	16	446	54	0	-17	5.841	31	2.58	1.60	13
ALLEN	147	8	****	0	****	****	0	****	0	*****	*****	*****	*****	6.800	31	****	1.80	13
ARDMORE	292	8	52.0	30	-3.5	79	2	31	15	391	71	0	-26	4.240	30	****	1.70	8
ATOKA DAM	394	8	52.9	23	****	79	2	28	15	279	*****	0	*****	5.781	23	****	1.56	12
BOKCHITO	917	8	****	0	****	****	0	****	0	*****	*****	*****	*****	3.340	31	****	1.30	6
CANEY	1437	8	****	0	****	****	0	****	0	*****	*****	*****	*****	4.960	31	****	1.20	28
CENTRAHOMA	1648	8	50.7	28	****	78	6	26	16	400	*****	0	*****	6.050	28	****	2.00	29
CHICKASAW	1745	8	49.9	30	-1.4	79	2	23	15	453	17	0	-11	6.611	31	3.17	1.90	12
COMANCHE	2054	8	51.3	31	****	76	22	29	14	426	*****	0	*****	5.650	31	3.02	2.10	12
DAISY	2354	8	****	0	****	****	0	****	0	*****	*****	*****	*****	5.131	31	0.75	1.72	13
DUNCAN	2660	8	50.9	31	-0.9	81	2	28	15	437	16	0	-12	4.570	31	1.98	1.18	13
ELMORE CITY	2872	8	****	0	****	****	0	****	0	*****	*****	*****	*****	4.540	31	****	1.29	13
GRADY	3688	8	****	0	****	****	0	****	0	*****	*****	*****	*****	5.250	31	****	2.12	27
HEALDTON	4001	8	50.5	31	-3.3	79	2	26	15	449	83	0	-19	5.070	31	2.16	1.36	28
HENNEPIN	4052	8	****	0	****	****	0	****	0	*****	*****	*****	*****	4.842	31	****	1.80	13
KETCHUM RAN	4780	8	****	0	****	****	0	****	0	*****	*****	*****	*****	4.780	31	****	1.22	12
KINGSTON	4865	8	****	0	****	****	0	****	0	*****	*****	*****	*****	3.451	31	-0.11	1.50	8
LEHIGH	5108	8	****	0	****	****	0	****	0	*****	*****	*****	*****	5.057	31	****	1.40	8
LINDSAY	5216	8	48.9	31	-3.8	79	1	24	15	499	104	0	-13	3.970	31	1.08	1.62	12
LOCO	5247	8	****	0	****	****	0	****	0	*****	*****	*****	*****	6.830	31	****	2.73	12
MADILL	5468	8	52.3	30	-2.1	77	23	27	15	382	33	0	-20	4.570	31	1.07	1.38	28
MARIETTA	5563	8	51.0	31	-3.6	76	2	23	16	436	94	0	-20	3.800	31	0.49	1.22	28
MARLOW	5581	8	52.4	31	-0.6	80	1	23	15	392	6	0	-14	3.961	31	1.52	1.41	13
MCGEES CREEK	5713	8	52.5	31	****	80	2	28	15	387	*****	0	*****	5.250	31	****	1.60	13
PAULS VALLEY	6926	8	49.3	31	-4.1	79	2	24	15	487	113	0	-15	4.012	31	1.09	1.86	13
PONTOTOC	7214	8	****	0	****	****	0	****	0	*****	*****	*****	*****	6.510	31	2.86	2.25	12
TISHOMINGO	8884	8	52.5	31	-1.7	80	1	25	15	388	39	0	-15	5.670	31	1.97	3.47	8
TUSSY	9032	8	****	0	****	****	0	****	0	*****	*****	*****	*****	4.730	31	****	1.60	12
WAURIKA	9395	8	53.4	31	-1.4	82	1	26	15	360	21	0	-23	6.331	31	3.97	2.32	12

MARCH 1999 SUMMARY FOR SOUTHEAST DIVISION (CD9)

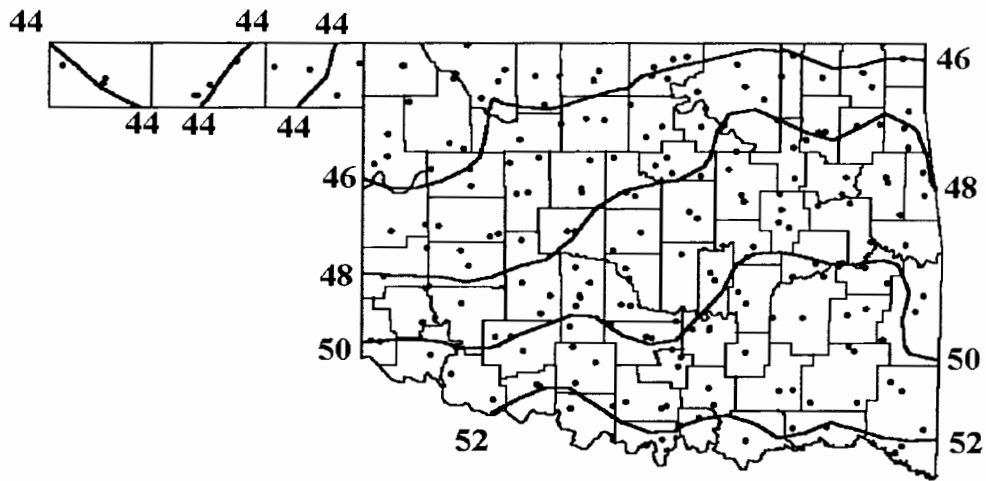
NAME	ID	CD	MEAN TEMP	NUM OBS	DEV		MIN TEMP	DAY	HEAT DEG	DEV FROM NORM	COOL DEG	DEV FROM NORM	TOT PPT	NUM OBS	DEV			
					FROM NORM	MAX TEMP									FROM NORM	MAX 24-HR		
ANTLERS	256	9	53.0	29	****	78	5	27	15	350	*****	3	*****	4.940	31	1.15	2.10	12
BATTIEST	567	9	49.1	31	****	77	2	26	16	493	*****	0	*****	4.680	31	*****	2.08	13
BENGAL	670	9	****	0	****	****	0	****	0	*****	*****	*****	*****	6.370	31	*****	1.78	13
BOSWELL	980	9	51.2	31	-3	80	6	27	16	427	76	0	-16	4.350	31	0.57	1.67	13
BROKEN BOW	1162	9	****	0	****	****	0	****	0	*****	*****	*****	*****	4.580	31	-0.31	1.53	13
CARNASAW	1499	9	****	0	****	****	0	****	0	*****	*****	*****	*****	3.860	31	-1.40	2.40	13
CARTER TWR	1544	9	****	0	****	****	0	****	0	*****	*****	*****	*****	4.860	31	0.00	1.26	12
FANSHAWE	3065	9	****	0	****	****	0	****	0	*****	*****	*****	*****	6.470	31	2.14	2.05	28
HEAVENER	4008	9	****	0	****	****	0	****	0	*****	*****	*****	*****	6.000	31	1.92	2.15	28
HUGO	4384	9	51.5	27	****	78	6	30	18	365	****	0	****	2.050	31	-2.14	0.40	25
IDABEL	4451	9	51.5	31	-1.9	78	23	25	16	420	49	0	-12	3.452	31	-1.40	1.11	13
PAGE	6842	9	49.9	27	****	80	10	22	15	408	****	0	****	5.371	29	****	1.94	12
POTEAU	7254	9	49.5	31	****	79	1	24	14	482	****	2	****	6.773	31	****	1.82	12
SMITHVILLE	8285	9	47.5	22	****	78	2	21	5	385	****	0	****	6.001	23	****	3.80	13
SPIRO	8416	9	****	0	****	****	0	****	0	*****	*****	*****	*****	6.080	31	1.77	2.21	13
TUSKAHOMA	9023	9	52.2	31	-1.8	80	1	25	15	398	39	3	-16	5.811	31	1.68	2.19	13
VALLIANT	9118	9	****	0	****	****	0	****	0	*****	*****	*****	*****	4.141	31	-0.32	2.54	13
WILBURTON	9634	9	50.6	31	-2.1	76	22	25	15	448	52	3	-12	6.420	31	2.25	1.71	12
WISTER	9724	9	48.7	31	****	75	23	25	5	506	****	1	****	5.880	31	****	1.62	13

MARCH 1999 CLIMATE DIVISION SUMMARY

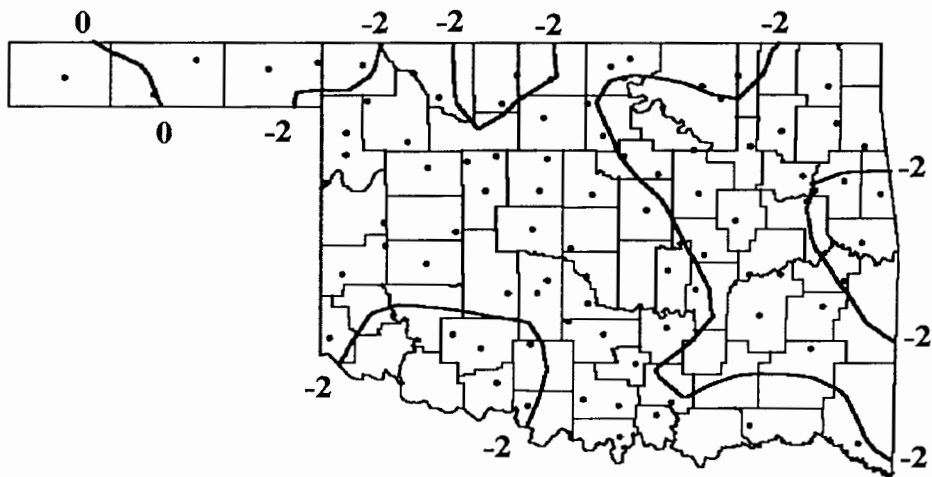
CD	MEAN TEMP	NUM OBS	DEV		MIN TEMP	DAY	HEAT DEG	DEV FROM NORM	COOL DEG	DEV FROM NORM	TOT PPT	NUM OBS	DEV			
			FROM NORM	MAX TEMP									FROM NORM	MAX 24-HR		
1	44.6	11	-1.1	86	3	11	15	633	32	0	-3	2.090	15	0.77	1.28	13
2	45.8	14	-2.5	83	2	13	2	591	66	0	-7	3.710	21	1.43	2.39	14
3	48.7	12	-1.1	80	1	20	15	501	22	0	-9	4.420	21	1.01	4.00	14
4	46.9	9	-2.4	81	2	22	14	558	65	0	-7	3.230	18	1.31	1.65	12
5	48.8	16	-2.5	82	2	19	3	496	61	0	-11	3.960	31	1.10	2.08	13
6	50.0	11	-1.8	82	3	22	15	465	43	1	-12	5.720	26	1.85	2.93	13
7	49.5	8	-2.5	85	22	23	16	479	65	0	-11	3.520	17	1.59	1.87	12
8	51.2	14	-2.2	82	1	23	15	424	48	0	-17	5.060	26	1.87	3.47	8
9	50.4	7	-3.2	80	1	21	5	453	85	1	-15	5.100	17	0.64	3.80	13

MESONET MONTHLY SUMMARY FOR MARCH 1999

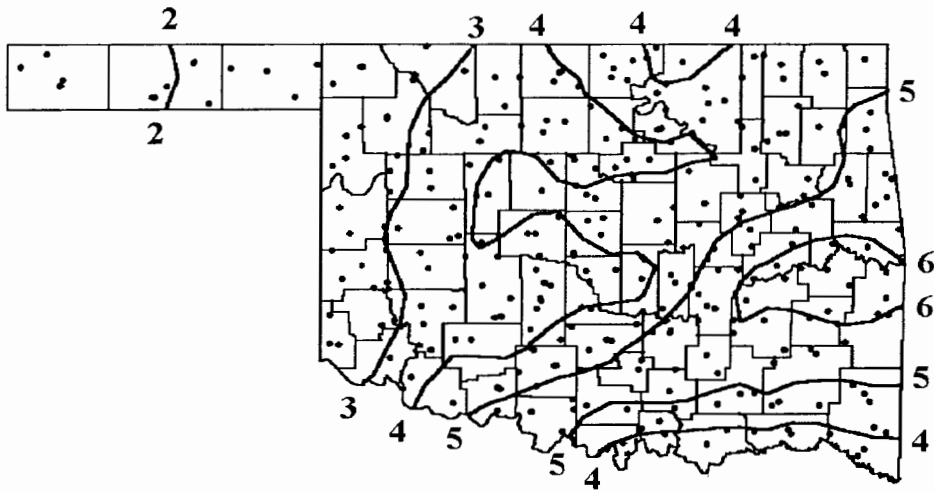
NAME	MEAN MAX			MIN			TOT MAX			NAME	MEAN MAX			MIN			TOT MAX				
	TEMP	TEMP	DAY	TEMP	DAY	HDD	CDD	PPT	24-HR		DAY	TEMP	TEMP	DAY	TEMP	DAY	HDD	CDD	PPT	24-HR	DAY
Arnett	46.1	78	1	21	14	585	0	2.41	.83	18	Goodwell	43.3	82	31	12	14	674	0	1.96	.54	20
Beaver	44.7	87	31	14	14	630	2	2.34	.68	8	Hooker	43.0	77	31	10	14	682	0	2.20	.63	15
Boise City	42.7	82	31	15	14	692	0	1.10	.40	14	Kenton	43.6	82	31	15	14	662	0	1.03	.35	20
Buffalo	45.6	82	31	16	14	602	1	2.78	1.00	12	Slapout	45.0	87	31	14	14	623	3	2.35	.44	8
NORTH CENTRAL																					
Alva	45.4	81	1	20	14	607	0	****	****	**	Lahoma	45.9	78	1	20	14	592	0	3.25	1.59	12
Blackwell	46.7	76	1	24	14	568	0	3.25	1.24	12	May Ranch	45.8	79	1	21	14	595	0	2.52	.71	12
Breckenridge	45.9	76	1	19	15	592	0	3.72	1.50	12	Medford	45.5	77	1	16	15	605	0	2.96	1.36	12
Cherokee	45.6	79	1	19	14	600	0	3.63	1.58	12	Newkirk	45.6	76	1	23	3	602	0	3.22	.98	8
Fairview	46.9	81	1	22	14	560	0	3.43	1.47	12	Red Rock	46.7	78	1	17	15	566	0	4.54	1.83	12
Freedom	45.9	80	1	16	14	593	0	2.85	1.09	12	Seiling	46.2	79	1	21	14	583	0	3.23	1.41	12
NORTHEAST																					
Bixby	49.0	79	1	26	15	496	0	3.88	1.55	12	Miami	46.0	74	1	19	15	588	0	4.43	1.52	8
Burbank	47.0	77	1	21	15	559	0	3.48	1.05	12	Nowata	45.9	77	1	18	15	593	0	4.95	1.67	8
Catoosa	48.5	78	1	26	3	511	0	4.30	1.74	12	Pawnee	47.1	79	1	24	15	519	0	3.97	1.84	12
Claremore	48.1	79	1	24	15	523	0	4.22	1.75	12	Pryor	47.0	76	1	21	15	558	0	4.64	1.60	8
Copan	46.0	77	1	23	15	589	0	3.86	1.42	8	Skiatook	47.7	78	1	25	14	537	0	3.99	1.72	12
Foraker	46.0	78	1	22	3	589	0	****	****	**	Tulahassee	49.3	77	1	25	15	486	0	5.03	1.93	12
Jay	46.8	76	1	18	15	565	0	5.38	1.70	8	Vinita	45.4	76	1	17	15	607	0	3.97	1.70	8
WEST CENTRAL																					
Bessie	48.5	79	1	26	14	511	0	3.47	1.45	12	Putnam	46.4	79	1	23	14	577	0	3.05	1.49	12
Butler	48.3	80	1	25	14	518	0	3.89	1.61	12	Retrop	48.4	79	1	27	14	497	0	2.64	1.09	12
Camargo	46.0	80	1	24	3	587	0	2.62	1.15	12	Watonga	46.9	78	1	22	14	560	0	3.87	1.69	12
Cheyenne	47.6	78	1	25	14	538	0	3.19	1.03	12	Weatherford	47.0	76	1	24	14	557	0	3.73	1.76	12
Erick	47.9	79	1	23	3	531	0	2.55	.94	12											
CENTRAL																					
Acme	50.5	79	1	25	15	451	0	3.85	1.53	12	Minco	48.4	77	1	26	15	515	0	4.17	2.03	12
Bowlegs	49.7	80	1	23	15	475	0	4.32	1.66	12	Ninnekah	50.2	78	1	23	15	459	0	3.89	1.92	12
Bristow	48.6	78	1	23	15	509	0	4.33	1.55	12	Norman	49.3	78	1	25	15	488	0	3.49	1.74	12
Chandler	49.0	78	1	25	14	497	0	4.01	1.77	12	Oilton	47.5	78	1	18	15	542	0	4.08	1.49	12
Chickasha	49.4	79	1	23	15	483	0	3.90	1.91	12	Okemah	49.3	78	1	24	15	488	0	4.80	1.63	12
El Reno	46.8	76	1	23	15	565	0	3.53	1.60	12	Perkins	48.2	78	1	24	14	521	0	3.66	1.55	12
Guthrie	48.5	78	1	24	15	512	0	3.89	1.68	12	Shawnee	49.1	77	1	26	15	492	0	3.90	1.61	12
Kingfisher	47.4	78	1	25	15	544	0	4.23	1.93	12	Spencer	49.0	78	1	25	14	497	0	4.63	1.86	12
Marena	47.9	79	1	22	15	530	0	4.00	1.52	12	Stillwater	47.9	79	1	21	15	531	0	4.07	1.66	12
Marshall	47.3	78	1	24	15	548	0	3.72	1.76	12	Washington	50.3	80	1	26	15	456	0	3.86	1.66	12
EAST CENTRAL																					
Calvin	50.3	79	1	25	15	455	0	5.57	2.02	12	Preston	49.7	80	1	27	14	474	0	5.05	1.86	12
Cookson	48.1	77	1	22	15	522	0	5.86	2.12	12	Sallisaw	49.7	77	1	27	15	475	0	6.27	1.96	12
Eufaula	50.1	77	1	26	15	462	0	6.11	1.83	12	Stigler	50.0	78	1	27	15	465	0	6.81	2.03	12
Haskell	48.5	77	1	26	15	512	0	5.04	2.11	12	Stuart	50.4	77	1	27	15	452	0	7.22	3.34	12
Hectorville	49.4	78	1	26	15	484	0	4.45	1.78	12	Tahlequah	47.6	76	1	24	15	539	0	4.98	1.86	12
McAlester	50.7	78	1	24	15	444	0	6.10	2.27	12	Webbers Falls	49.8	77	1	29	7	470	0	6.16	2.17	12
Okmulgee	49.4	78	1	25	15	483	0	5.13	1.92	12	Westville	47.6	76	1	23	15	540	0	5.40	1.87	12
SOUTHWEST																					
Altus	50.7	80	22	29	3	444	0	2.73	1.02	18	Hollis	50.2	84	22	27	15	459	0	2.37	.84	12
Apache	49.2	78	1	28	3	489	0	3.76	1.79	12	Mangum	49.3	80	22	25	3	486	0	2.82	1.34	12
Fort Cobb	49.2	78	1	28	14	490	0	3.68	1.91	12	Medicine Park	50.4	78	1	28	14	452	0	4.08	1.53	18
Grandfield	51.7	80	22	27	3	413	0	4.80	2.61	18	Tipton	51.5	80	1	26	3	419	0	3.63	1.55	18
Hinton	47.7	78	1	23	14	535	0	5.16	2.28	12	Walters	51.7	81	1	26	15	412	0	3.84	1.82	18
Hobart	48.1	78	1	27	3	523	0	2.91	1.19	12											
SOUTH CENTRAL																					
Ada	50.3	79	1	24	15	456	0	5.35	2.10	12	Madill	52.3	76	1	24	15	392	0	3.94	.94	27
Ardmore	52.2	78	1	28	15	398	0	4.67	1.37	12	Pauls Valley	51.3	79	1	27	15	424	0	4.49	1.73	12
Burneyville	52.5	78	1	24	15	387	0	3.33	.70	7	Rainling	52.4	79	1	26	15	392	0	5.27	2.28	12
Byars	50.0	79	1	27	15	463	0	4.41	1.66	12	Sulphur	50.7	79	1	24	15	443	0	5.29	2.45	12
Centrahoma	51.1	79	1	24	15	430	0	5.88	1.98	12	Tishomingo	51.0	78	1	24	15	432	0	4.73	1.32	12
Durant	52.5	77	5	29	15	387	1	3.29	.95	12	Vanoss	50.7	80	1	23	15	444	0	4.89	1.95	12
Ketchum Ranch	51.6	79	1	26	15	414	0	4.37	1.18	12	Waurika	52.3	80	1	28	15	392	0	6.62	2.43	12
Lane	51.5	78	1	27	15	418	0	3.58	1.17	12											
SOUTHEAST																					
Antlers	51.3	79	1	25	4	427	2	7.00	3.33	12	Idabel	52.7	76	22	28	4	381	0	3.26	1.25	12
Broken Bow	52.3	78	22	26	15	394	0	3.92	1.63	12	Mt Herman	50.4	76	1	25	15	453	0	5.71	2.56	12
Clayton	51.4	78	1	28	15	380	0	4.89	1.69	12	Talihina	50.8	79	1	25	15	439	0	5.51	1.88	12
Cloudy	51.4	77	1	27	15	422	0	4.38	2.00	12	Wilburton	50.3	79	1	25	15	443	1	5.65	2.02	12
Hugo	52.7	77	5	29	15	381	1	3.56	1.60	12											



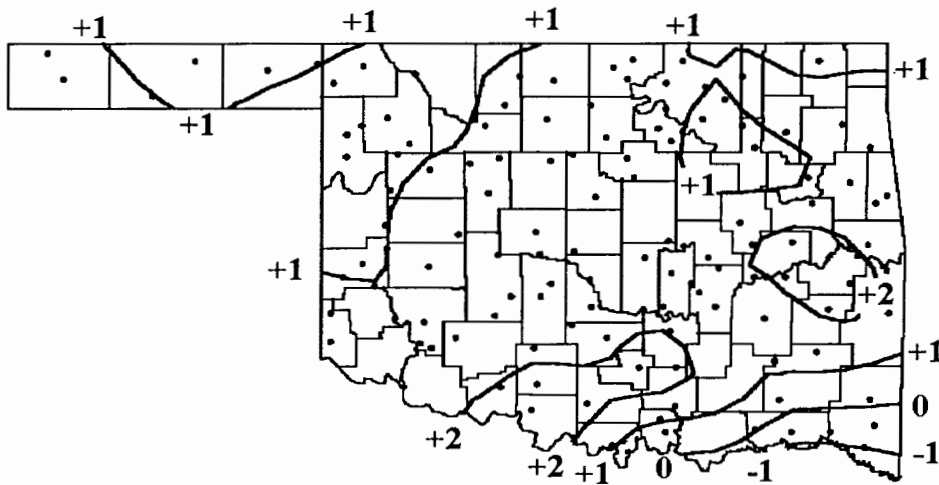
MARCH 1999 AVERAGE MONTHLY TEMPERATURE (F)



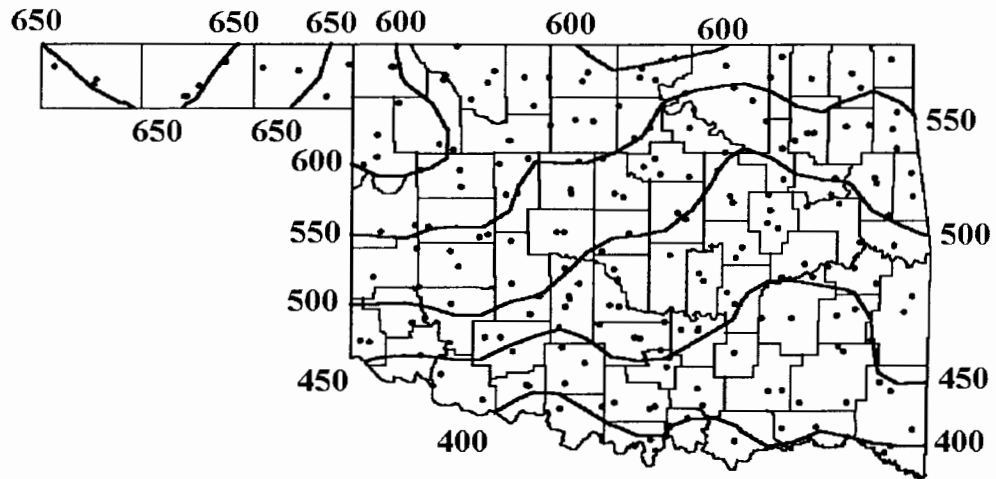
MARCH 1999 DEPERATURE FROM NORMAL TEMPERATURE (F)



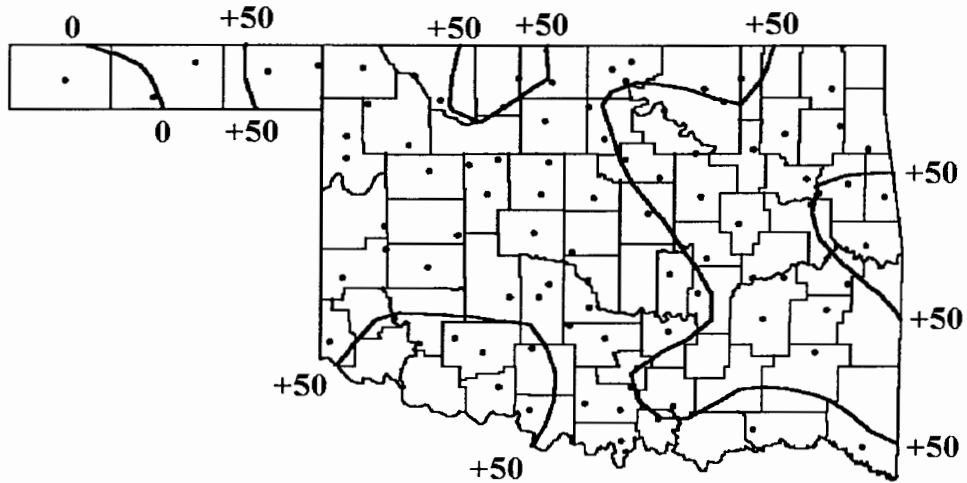
MARCH 1999 TOTAL PRECIPITATION (INCHES)



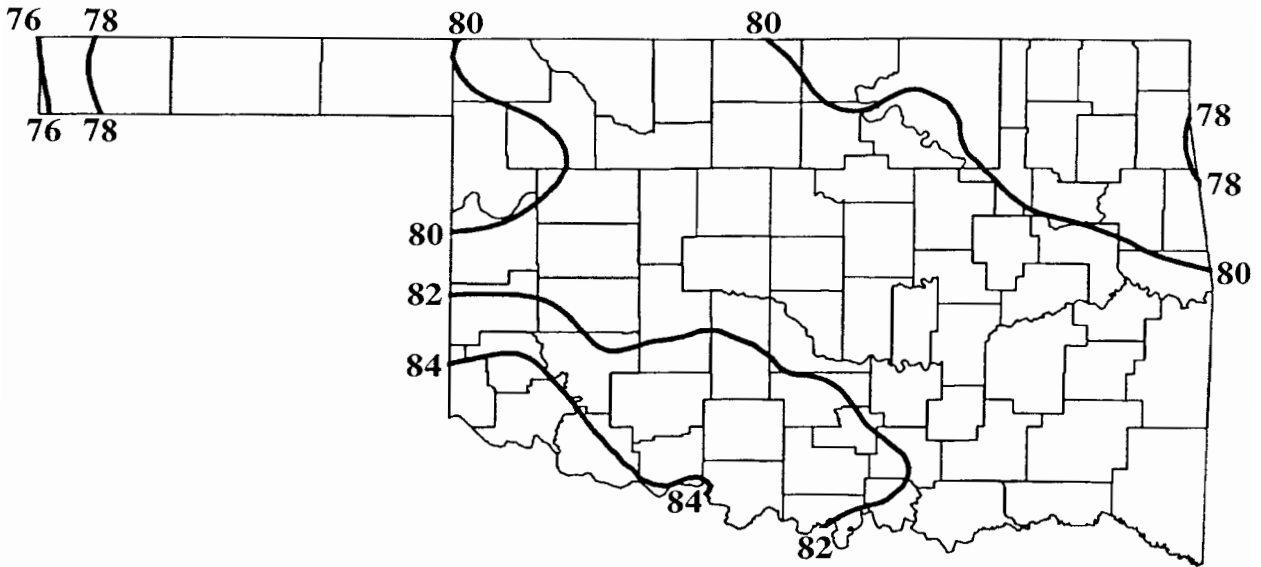
MARCH 1999 DEPARTURE FROM NORMAL PRECIPITATION (INCHES)



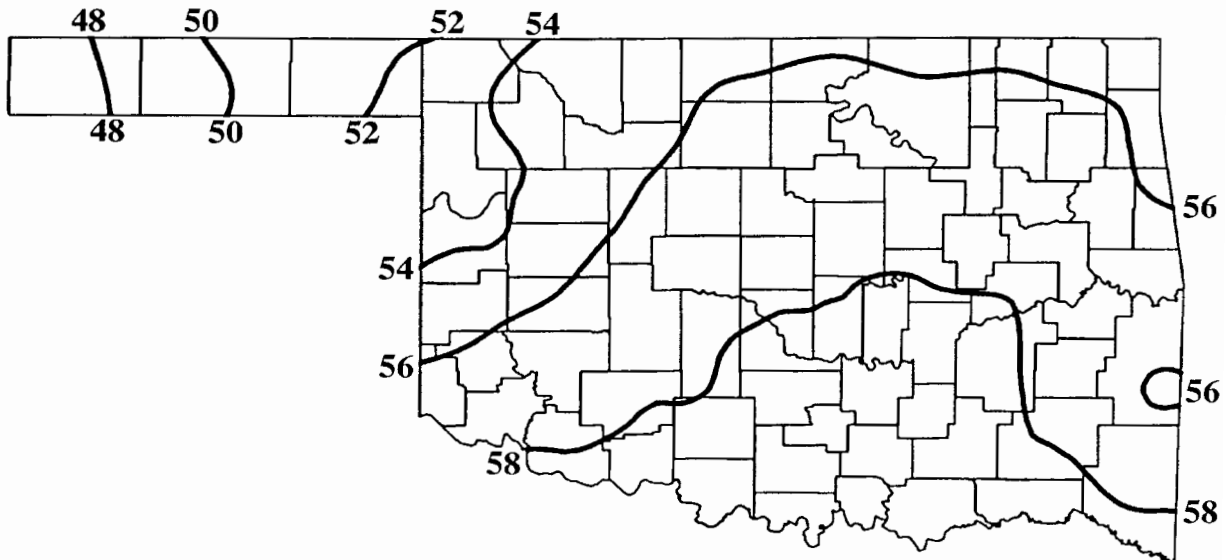
MARCH 1999 ACCUMULATED HEATING DEGREE DAYS (F)



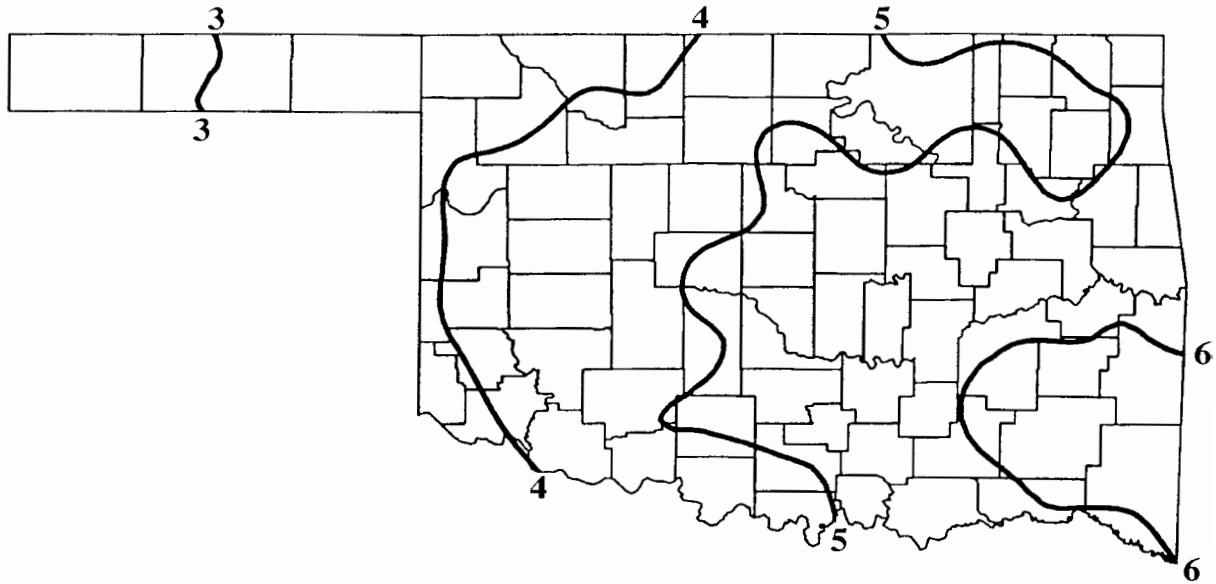
MARCH 1999 DEPARTURE FROM NORMAL HEATING DEGREE DAYS (F)



MAY NORMAL DAILY MAXIMUM TEMPERATURE (F)



MAY NORMAL DAILY MINIMUM TEMPERATURE (F)



MAY NORMAL MONTHLY PRECIPITATION (INCHES)

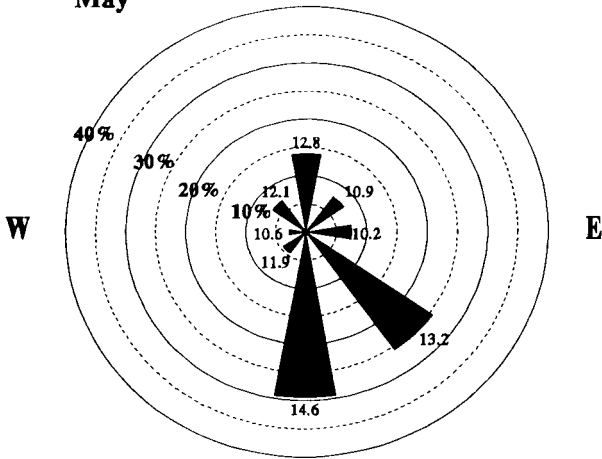
OUTLOOK FOR MAY 1999 THROUGH JULY 1999

BASED ON SEASONAL OUTLOOK PROVIDED BY THE CLIMATE PREDICTION CENTER

TEMPERATURE: ABOVE NORMAL TEMPERATURE STATEWIDE

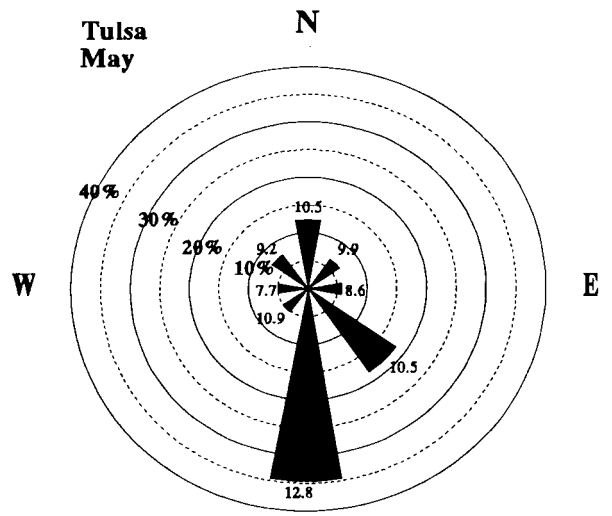
**PRECIPITATION: BELOW NORMAL PRECIPITATION IN PANHANDLE
NORMAL PRECIPITATION ELSEWHERE**

Oklahoma City
May



Calm=1.6%
Mean Speed= 12.7 mph

Tulsa
May



Calm=5.1%
Mean Speed= 10.4 mph

May Wind Roses for Oklahoma City and Tulsa. The frequency (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 direction in miles per hour.

MAY SUNRISE/SUNSET TIMES FOR 1999

ALL TIMES ARE CENTRAL STANDARD TIME

OKLAHOMA CITY

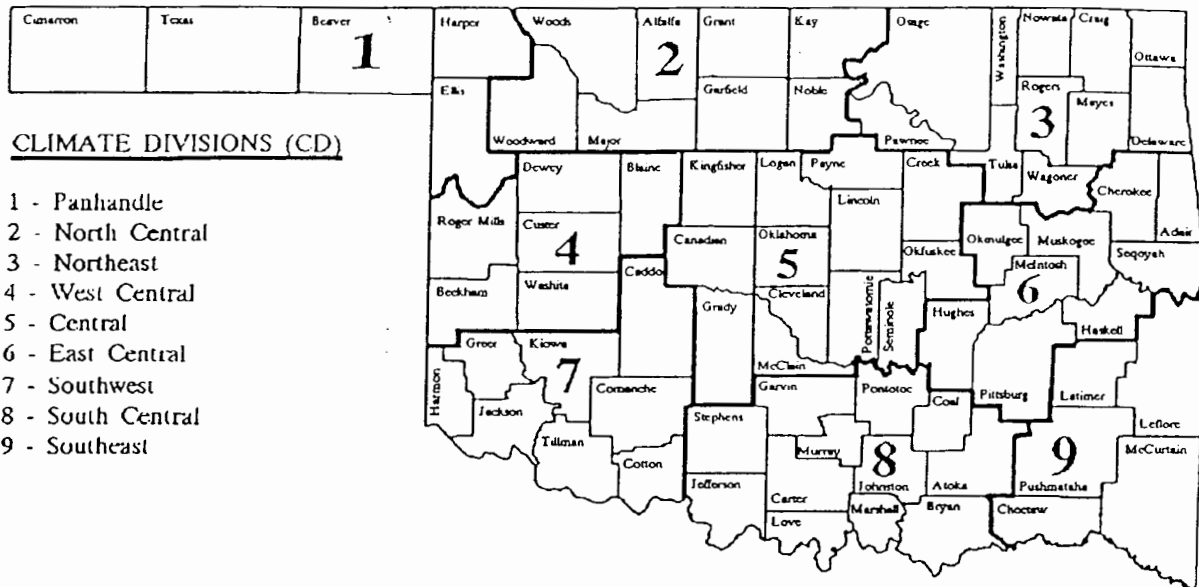
TULSA

DATE	SUNRISE	SUNSET
5/1/99	539	1916
5/2/99	538	1917
5/3/99	537	1918
5/4/99	536	1919
5/5/99	535	1919
5/6/99	534	1920
5/7/99	533	1921
5/8/99	532	1922
5/9/99	531	1923
5/10/99	530	1924
5/11/99	529	1924
5/12/99	528	1925
5/13/99	527	1926
5/14/99	527	1927
5/15/99	526	1928
5/16/99	525	1928
5/17/99	524	1929
5/18/99	524	1930
5/19/99	523	1931
5/20/99	522	1931
5/21/99	522	1932
5/22/99	521	1933
5/23/99	520	1934
5/24/99	520	1934
5/25/99	519	1935
5/26/99	519	1936
5/27/99	518	1937
5/28/99	518	1937
5/29/99	517	1938
5/30/99	517	1939
5/31/99	517	1939

DATE	SUNRISE	SUNSET
5/1/99	531	1911
5/2/99	530	1912
5/3/99	529	1913
5/4/99	528	1913
5/5/99	527	1914
5/6/99	526	1915
5/7/99	525	1916
5/8/99	524	1917
5/9/99	523	1918
5/10/99	522	1919
5/11/99	521	1919
5/12/99	520	1920
5/13/99	520	1921
5/14/99	519	1922
5/15/99	518	1923
5/16/99	517	1924
5/17/99	516	1924
5/18/99	516	1925
5/19/99	515	1926
5/20/99	514	1927
5/21/99	514	1927
5/22/99	513	1928
5/23/99	512	1929
5/24/99	512	1930
5/25/99	511	1930
5/26/99	511	1931
5/27/99	510	1932
5/28/99	510	1933
5/29/99	509	1933
5/30/99	509	1934
5/31/99	508	1935

ADD ONE HOUR FOR CENTRAL DAYLIGHT TIME

OKLAHOMA



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

Two kinds of tables appear in this summary. The first is a set of tables containing all reporting stations grouped by climate division. The figure above shows the locations of the climate divisions. Each table contains the following information for each station:

- Station Name:
- Station Identification Number: These are usually assigned by the National Climatic Data Center.
- Climate Division: See the figure above.
- Number of Temperature Observations: These 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 Maximum: The maximum daily maximum temperature observed during the current month and year and the day which it occurred.
- Minimum Daily Minimum: The minimum daily minimum temperature observed during the current month and year and the day 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. They 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. For February 1984 HDD would be calculated as:

$$\sum_{i=1}^{29} 65 - ((TMAX_i + TMIN_i) / 2)$$

- Deviation from Normal Heating Degree Days: 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. They 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. For June, CDD would be calculated as:

$$\sum_{i=1}^{30} ((TMAX_i + TMIN_i) / 2) - 65$$

Deviation from Normal Cooling Degree Days: 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 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: 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 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.

The second set of tables contain similar information but are the average or extreme over all the stations reporting in each climate division.

TULSA CLIMATE CALENDAR
DATA COURTESY OF NATIONAL WEATHER SERVICE TULSA

MAY

The data on this calendar is for Tulsa.
Normal values are calculated for the period 1961-1990.
Temperature extremes are for the period 1905-1998.
Precipitation extremes are for the period 1888-1998.

Day	Avg. Temp	Avg. High	Record High	Year	Lowest Max	Year	1999	Avg. Low	Highest Min	Year	Record Low	Year	1999	Avg. Ppt.	Greatest Ppt.	Year	1999
1	66	77	89	1948	32	1909		55	71	1936	53	1966		0.16	2.10	1944	
2	66	77	94	1943	32	1909		55	69	1959	50	1994		0.16	1.70	1980	
3	66	77	96	1920	36	1976		55	68	1938	52	1978		0.16	2.19	1979	
4	66	77	96	1920	36	1954		55	72	1950	51	1935		0.17	2.30	1913	
5	67	77	92	1952	36	1907		56	71	1964	51	1935		0.17	2.88	1913	
6	67	77	90	1952	36	1944		56	71	1986	59	1944		0.17	2.50	1973	
7	67	78	93	1918	40	1931		56	72	1986	52	1910		0.17	4.09	1995	
8	67	78	97	1918	37	1938		56	71	1996	53	1943		0.18	3.66	1961	
9	67	78	93	1918	38	1923		57	72	1948	61	1924		0.18	6.15	1943	
10	68	78	93	1963	41	1909		57	71	1963	54	1924		0.18	4.36	1950	
11	68	78	94	1980	39	1924		57	74	1956	58	1912		0.18	2.83	1992	
12	68	79	91	1992	40	1960		57	75	1956	57	1939		0.18	4.05	1982	
13	69	79	93	1911	41	1971		58	72	1991	51	1953		0.18	4.47	1933	
14	69	79	93	1911	44	1976		58	71	1998	54	1907		0.18	2.51	1956	
15	69	79	95	1911	35	1907		58	72	1996	52	1945		0.19	2.05	1910	
16	69	80	94	1931	40	1907		59	74	1974	52	1945		0.19	1.40	1943	
17	69	80	94	1911	40	1945		59	76	1974	65	1935		0.19	1.89	1928	
18	70	80	94	1987	45	1976		59	74	1996	65	1952		0.19	2.48	1960	
19	70	80	94	1911	46	1968		60	74	1996	65	1981		0.19	3.91	1949	
20	70	80	94	1956	42	1981		60	71	1982	64	1967		0.19	2.50	1902	
21	71	81	95	1925	45	1915		60	73	1962	56	1968		0.19	1.90	1978	
22	71	81	93	1953	44	1931		61	77	1953	56	1917		0.19	2.10	1902	
23	71	81	93	1939	41	1917		61	75	1953	62	1963		0.19	1.47	1947	
24	71	82	94	1911	42	1935		61	75	1996	63	1956		0.19	3.16	1908	
25	72	82	94	1911	45	1925		61	75	1996	64	1995		0.19	1.80	1974	
26	72	82	94	1926	44	1925		62	73	1916	60	1992		0.19	2.40	1984	
27	72	82	94	1911	45	1961		62	75	1912	65	1992		0.18	6.95	1984	
28	72	83	94	1926	45	1947		62	73	1991	53	1992		0.18	2.08	1905	
29	72	83	98	1926	40	1947		62	76	1989	62	1947		0.18	1.60	1903	
30	73	83	98	1934	45	1947		63	76	1989	59	1964		0.18	2.71	1976	
31	73	83	100	1934	49	1930		63	77	1991	63	1907		0.18	2.50	1926	
MONTH	69.3	79.7	100	1934	32	1909		58.8	77	1991	50	1994		5.60	6.95	1984	

*The average number of tornadoes reported in May for Oklahoma is 18.5.

OKLAHOMA CITY CLIMATE CALENDAR
DATA COURTESY OF NATIONAL WEATHER SERVICE NORMAN

The data on this calendar is for Oklahoma City.
Normal values are calculated for the period 1961-1990.
Temperature extremes are for the period 1891-1997.
Precipitation extremes are for the period 1891-1997.

MAY

Day	Avg. Temp	Avg. High	Record High	Year	Lowest Max	Year	1999	Avg. Low	Highest Min	Year	Record Low	Year	1999	Avg. Ppt.	Greatest Ppt.	Year	1999
1	62.8	73.0	93	1948	53	1966		52.7	66	1938	33	1909		0.09	1.63	1954	
2	62.9	73.6	94	1943	51	1994		52.2	69	1959	39	1961		0.19	2.99	1990	
3	64.1	74.5	95	1920	49	1978		53.8	70	1949	32	1954		0.10	3.58	1898	
4	65.4	76.8	93	1955	44	1935		54.0	72	1950	34	1907		0.12	3.60	1898	
5	67.3	77.4	94	1940	50	1935		57.2	69	1940	37	1917		0.15	4.24	1899	
6	66.5	77.0	92	1918	48	1908		56.0	70	1986	37	1944		0.10	2.61	1930	
7	66.2	77.4	93	1955	55	1893		55.0	71	1927	39	1917		0.06	2.27	1892	
8	66.9	78.4	96	1918	50	1943		55.3	70	1927	37	1917		0.11	6.64	1993	
9	67.0	77.7	93	1895	55	1943		56.3	70	1963	40	1923		0.15	3.37	1943	
10	66.0	75.6	96	1967	53	1954		56.3	71	1963	40	1924		0.31	4.71	1950	
11	66.5	76.7	94	1923	54	1954		56.3	70	1963	37	1981		0.07	2.85	1920	
12	66.4	76.9	93	1992	55	1914		55.9	72	1956	39	1979		0.19	2.26	1982	
13	66.7	77.2	95	1984	49	1953		56.3	69	1991	39	1971		0.18	2.58	1983	
14	67.1	78.2	92	1952	55	1934		56.0	70	1899	41	1953		0.14	2.48	1986	
15	68.3	79.0	90	1966	48	1945		57.6	72	1996	38	1907		0.14	3.59	1920	
16	69.6	80.8	92	1966	56	1920		58.5	75	1974	42	1945		0.19	1.81	1986	
17	68.8	78.9	96	1966	61	1986		58.6	74	1974	40	1945		0.35	3.17	1951	
18	69.4	80.1	95	1956	59	1943		58.7	72	1996	45	1976		0.11	1.50	1902	
19	69.7	81.0	96	1973	61	1943		58.4	72	1996	40	1894		0.22	3.35	1955	
20	69.4	79.6	94	1990	63	1942		59.2	74	1902	43	1981		0.28	2.74	1979	
21	70.7	81.3	95	1953	56	1968		60.0	73	1953	42	1892		0.15	2.81	1922	
22	70.9	81.0	98	1939	57	1892		60.7	74	1953	42	1931		0.18	3.09	1952	
23	70.6	80.8	99	1939	60	1963		60.5	76	1996	42	1892		0.20	4.16	1908	
24	71.1	80.8	94	1939	59	1995		61.3	74	1996	42	1935		0.12	4.06	1903	
25	72.1	82.5	93	1990	59	1995		61.7	72	1965	47	1947		0.15	1.49	1968	
26	71.0	81.5	96	1953	58	1950		60.5	74	1916	45	1901		0.32	3.22	1995	
27	70.4	81.3	96	1927	59	1893		59.5	74	1912	42	1907		0.37	5.38	1987	
28	71.3	81.3	93	1895	52	1992		61.3	71	1942	43	1947		0.20	2.33	1987	
29	72.1	82.6	94	1985	57	1902		61.6	73	1989	39	1947		0.30	5.63	1970	
30	73.0	83.2	104	1985	64	1915		62.8	74	1974	45	1947		0.20	1.67	1958	
31	72.5	82.0	98	1934	54	1903		63.0	74	1991	44	1983		0.22	2.14	1892	
MONTH	68.5	79.0	104	1985	44	1935		58.0	76	1996	32	1954		5.66	6.64	1993	

*The most tornadoes reported in May for Oklahoma was 61 in 1960.