OKLAHOMA MONTHLY CLIMATE SUMMARY
JULY 2002

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Oklahoma Climatological Survey

MONTHLY SUMMARY FOR JULY 2002

July 2002

Statewide average temperature = 80.8º F
Statewide average rainfall = 3.47 inches

July in Oklahoma can be unbearable at times, as it was during 2001, which ranks as the 6th warmest and 8th driest July since record keeping began in 1892. Comparatively, a July such as 2002's can seem downright temperate in comparison. At 80.8 degrees, the statwide-averaged temperature for the month fell 1.2 degrees below normal and ranks it as the 37th coolest throughout the previous 111 years. Statewide-averaged precipitation surpassed the normal July amount with a 3.47-inch total, a surplus of 0.74 inches and the 35th greatest on record.

The July precipitation surplus was not sufficient to eradicate the calendar-year deficit, however. The January-July statewide-averaged precipitation total of 21.06 inches falls 0.64 inches short of normal, ranking 2002 as the 49th wettest such period on record. The relatively cool weather for the month ensured that the year-to-date statewide-averaged temperature would finish below the established normal, and the 0.7-degree shortfall made this the 31st coolest such period on record. The highest temperature reported in the state, 108 degrees, occurred at Mutual (Woodward County) on the 26th. One day later, a 107-degree temperature was reported at Lahoma (Garfield). The lowest temperature of 55 degrees was found in the higher elevation and drier air of northwestern Oklahoma at Fort Supply (Woodward) on the 13th.

July Normals

Statewide average temperature = 82.0º F
Statewide average rainfall = 2.73 inches

Eight of the nine climate divisions within the state finished with normal or above normal rainfall for the month. The lone exception was the Panhandle division, which narrowly missed the mark at 96 percent of normal. The near-normal precipitation total in the Panhandle was not sufficient to alleviate the region's severe drought conditions. The Panhandle's precipitation deficit has steadily increased from June 2001 through July 2002 to 10.55 inches, the 5th-driest such 14-month period since climate division record-keeping began in 1895. Only the mid-1930s and mid-1950s periods, during the worst drought periods in the state's recorded history, were drier.

The greatest daily precipitation total in the state, 3.64 inches, was recorded at the Alva (Woods) Mesonet site on the 28th. Marietta (Love) experienced the 2nd greatest total with 3.37 inches, reported on the final day of the month. Mannford (Creek) recorded 3.27 inches of rainfall on the 29th, while Hominy (Osage) and Jefferson (Pottawatomie) reported 3.10 and 3.05 inches, respectively. Miami (Ottawa) is the lone remaining station that experienced at least 3 inches of daily rainfall during July, reporting 3.00 inches on the 24th.

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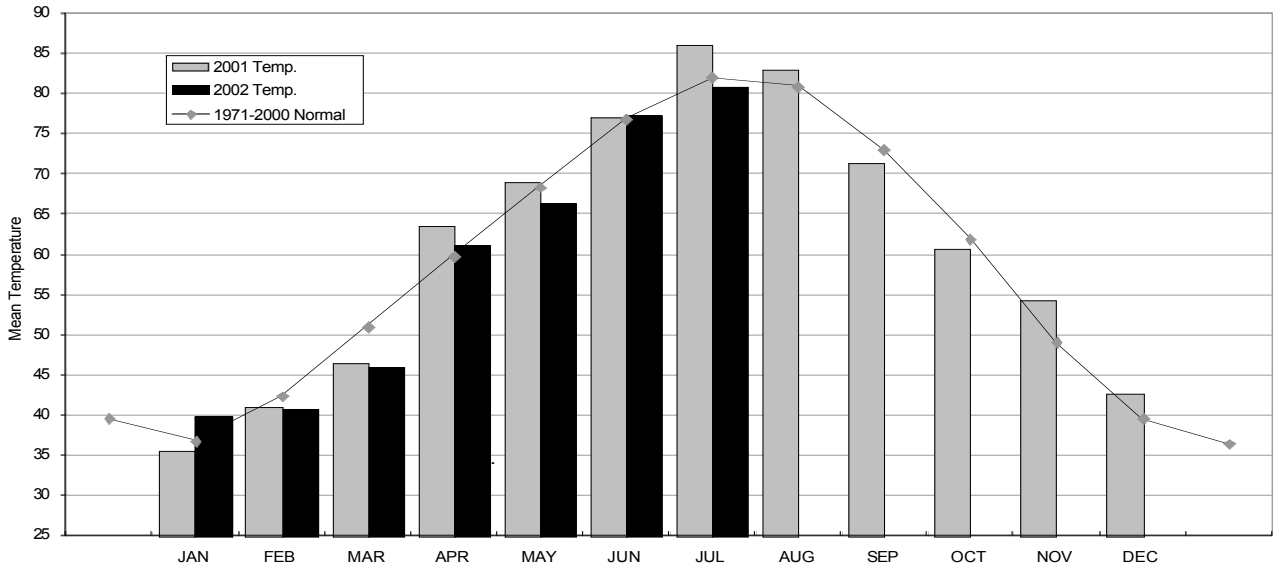
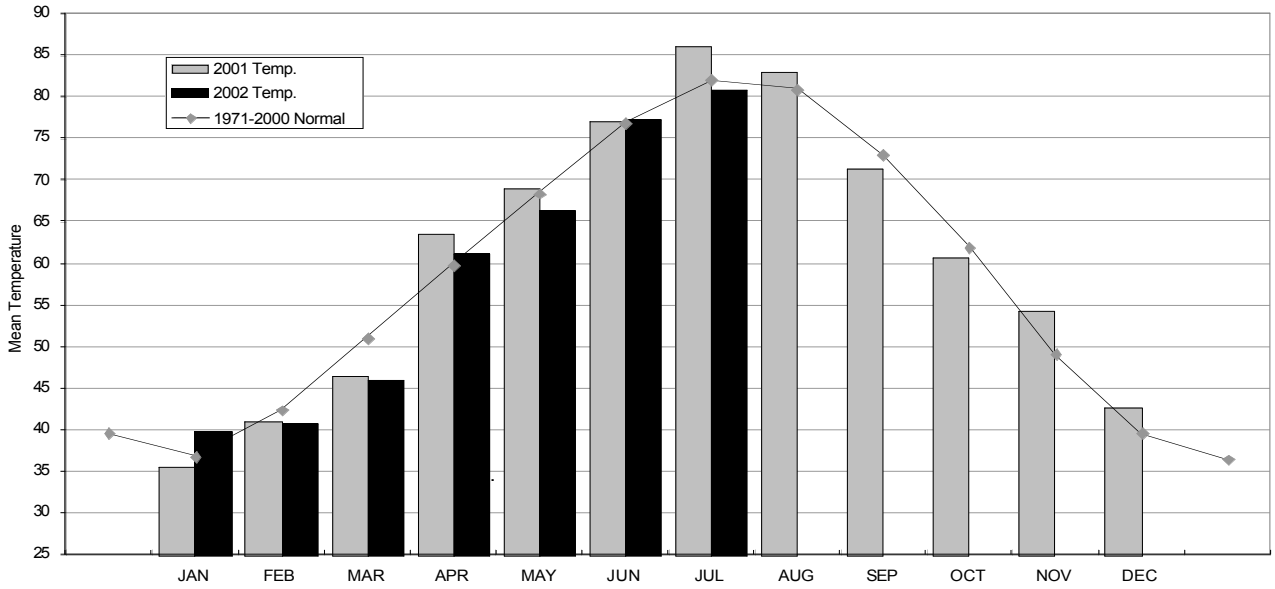
Severe weather was spotty at best during July, continuing a trend that has spanned the entire warm season in 2002. As with the previous month, no tornadoes were known to have touched down in the state, leaving strong winds, large hail, and flooding as the severe weather culprits. On the evening of the 6th, a localized thunderstorm produced severe winds that overturned a large tree across U.S. highway 69, closing the highway for a short time. A weak cool front that stalled in northern Oklahoma on the 10th and 11th, produced a line of severe storms across the area. Winds of over 60 miles per hour blew down trees and power lines near South Coffeyville (Nowata), Spavinaw (Mayes), Kenwood (Delaware), Broken Arrow (Tulsa), Muskogee (Muskogee), and Tahlequah (Cherokee). The strong straight-line winds also produced structural damage at Verdigris (Rogers), with shutters stripped off of houses and large trees blown down. Quarter-sized hail struck Beaver (Beaver) and Cleo Springs (Major) on the 10th, with Beaver being struck again on the 11th. Another cool front triggered severe storms across northern, central, and western Oklahoma from the 22nd through the 24th. Calumet (Canadian) and Okarche (Kingfisher) residents experienced 0.75-inch diameter hail on the 22nd, accompanied by 66 mph winds in Okarche. Law enforcement officials reported large tree limbs being blown down in Miami (Ottawa). More storms formed along the stalled front on the afternoon of the 23rd, bringing 0.75-inch hail and 75 mph winds to Poteau (Le Flore), shattering a window in the city's pet store. The front lingered into the 24th, and yet another batch of severe storms formed along the surface boundary. Numerous reports of strong winds were reported across central Oklahoma, including winds estimated at 75 miles per hour at Oklahoma City (Oklahoma) and Dale (Pottawatomie). Severe winds blew the tops off of several trees and destroyed numerous carports between Moyers and Antlers in Pushmataha County. The last significant bout of severe weather occurred on the 28th. The Freedom Mesonet station recorded wind gusts of 83 and 72 miles per hour. Tree damage was reported in Canute (Washita), Lookeba, and Lookout (both in Caddo County).

Gary D. McManus

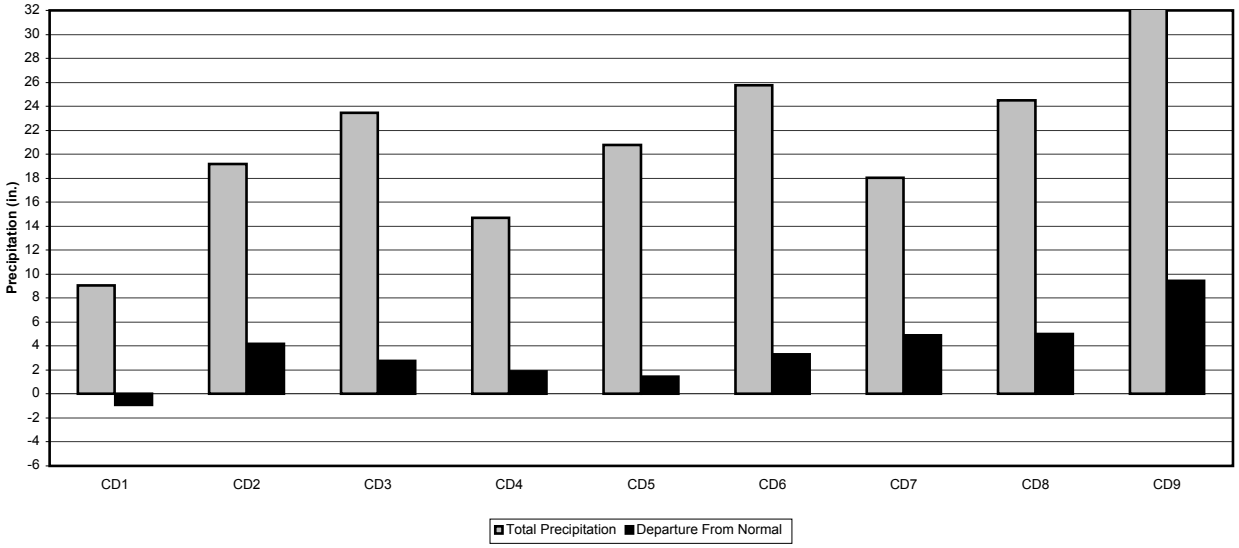
2001 AND 2002 STATEWIDE TEMPERATURES - MONTHLY AVERAGES



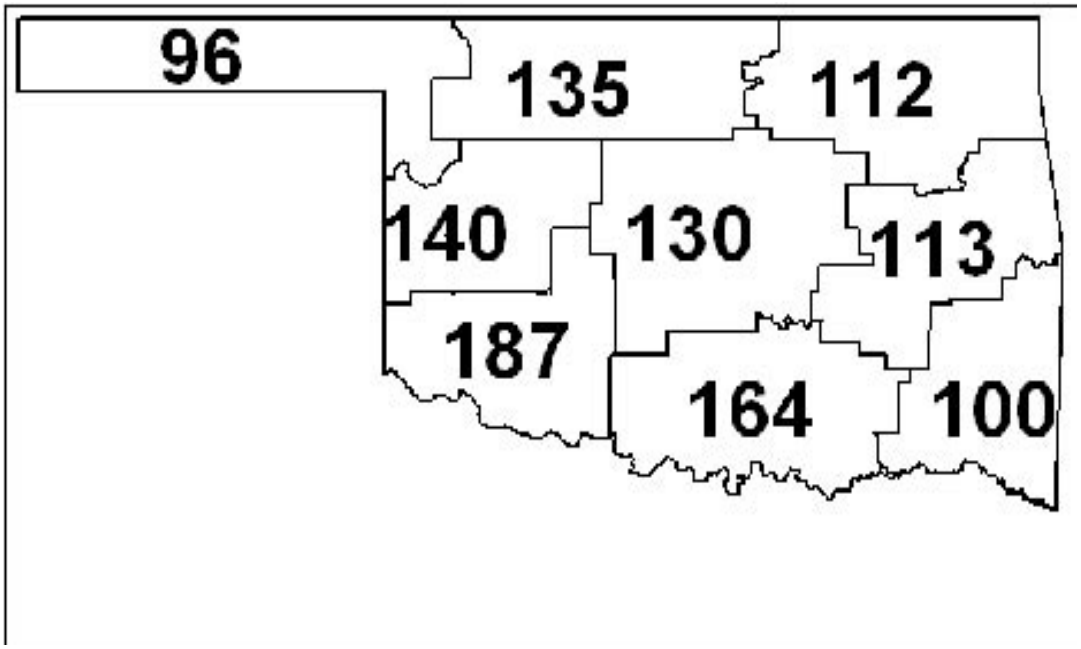
2001 AND 2002 STATEWIDE PRECIPITATION - MONTHLY TOTALS



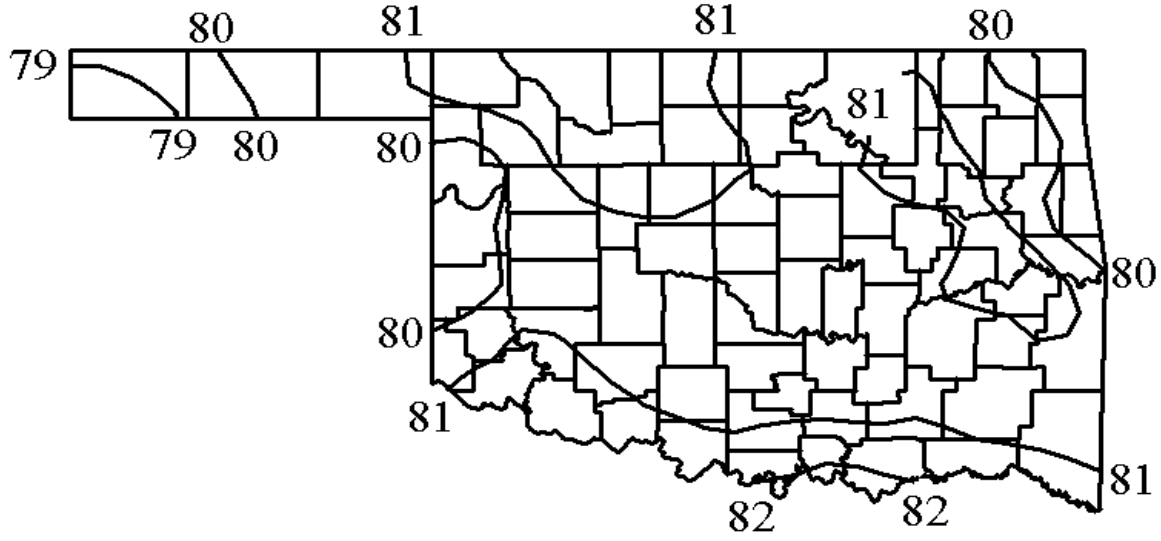
CLIMATE DIVISION AVERAGED PRECIPITATION - JANUARY THROUGH JULY 2002



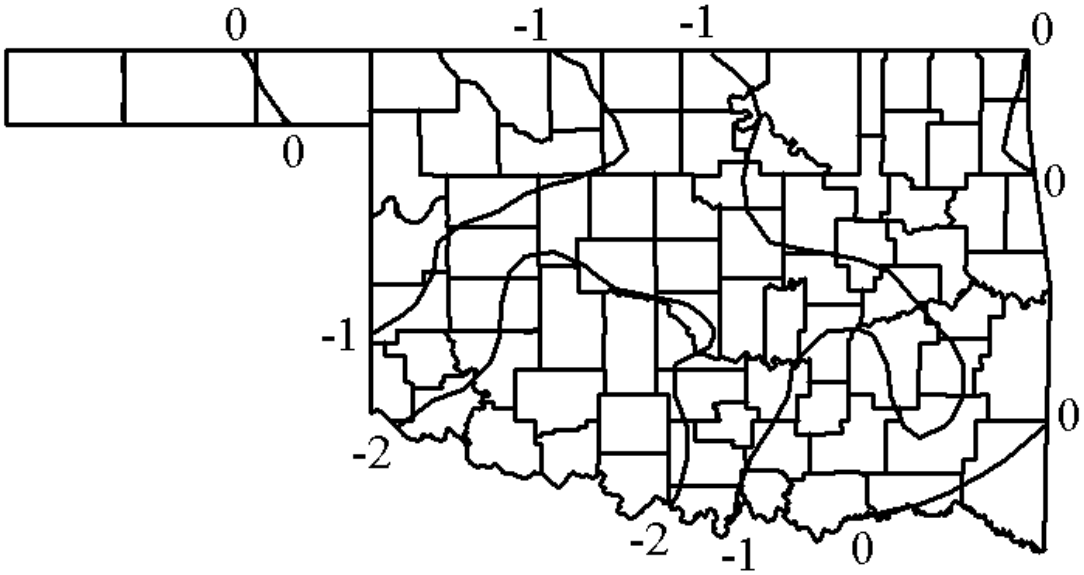
CLIMATE DIVISION PERCENT OF NORMAL PRECIPITATION - JULY 2002



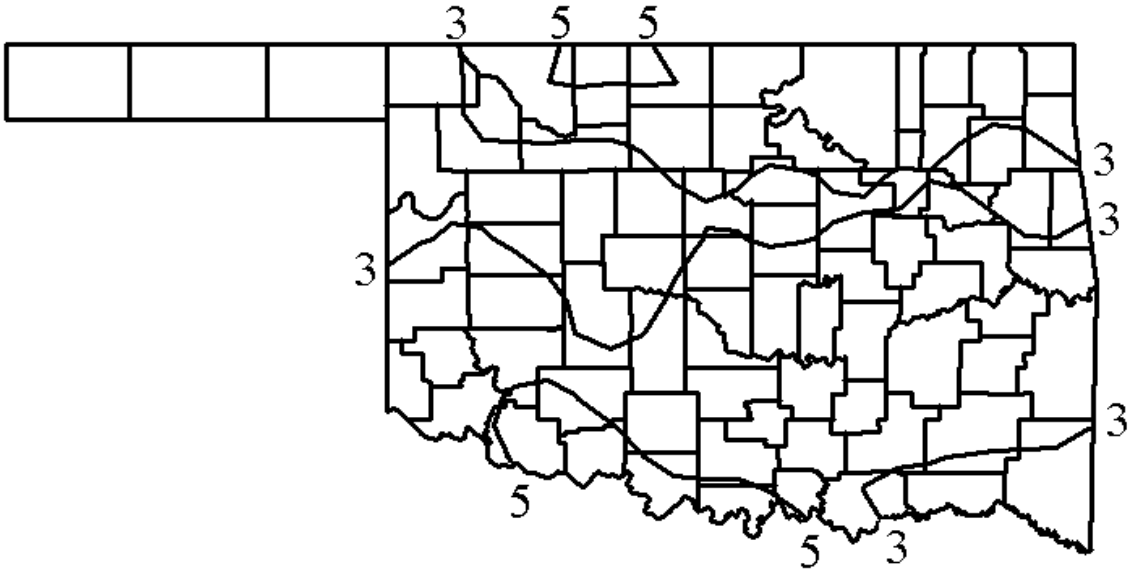
JULY 2002 AVERAGE MONTHLY TEMPERATURE (ºF)



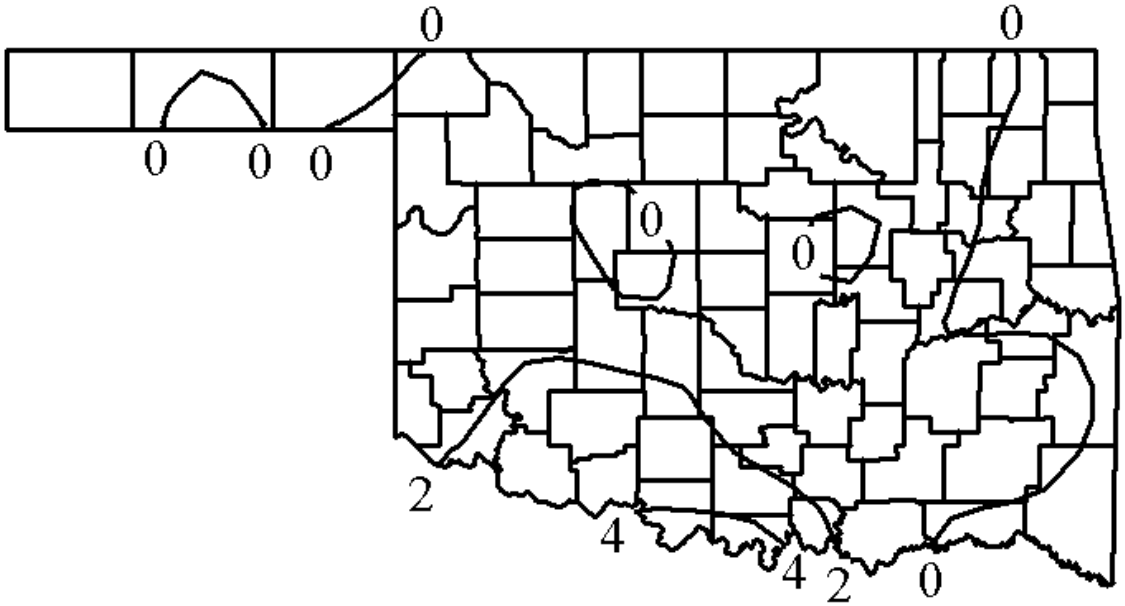
JULY 2002 DEPARTURE FROM NORMAL TEMPERATURE (ºF)



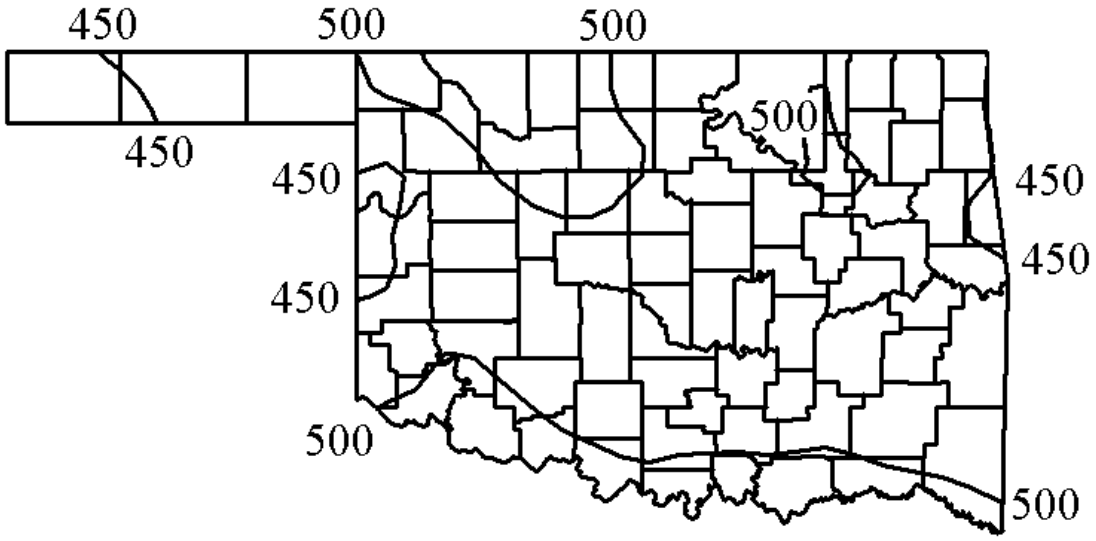
JULY 2002 PRECIPITATION (INCHES)



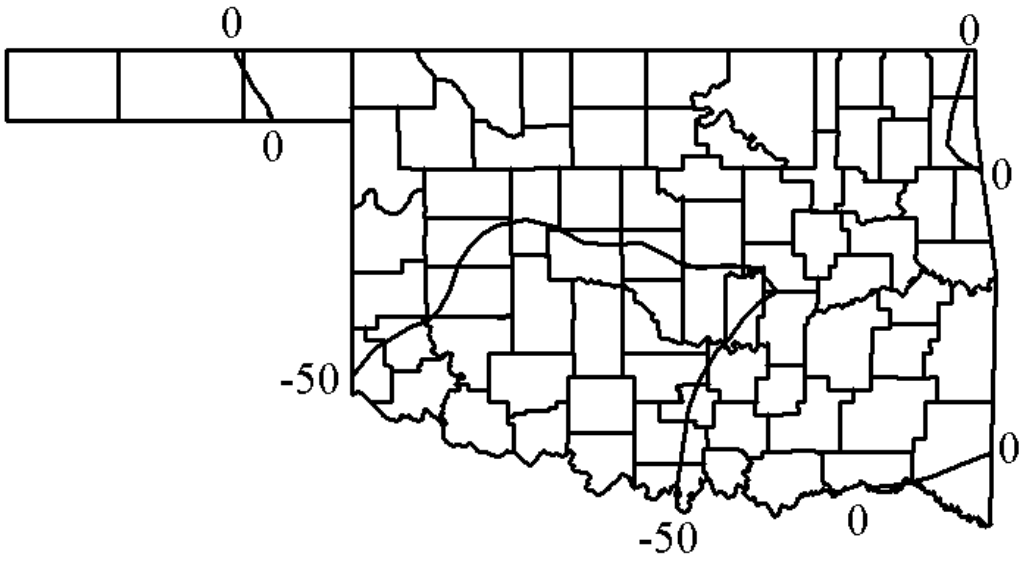
JULY 2002 DEPARTURE FROM NORMAL PRECIPITATION (INCHES)



JULY 2002 ACCUMULATED COOLING DEGREE DAYS (ºF)



JULY 2002 DEPARTURE FROM NORMAL COOLING DEGREE DAYS (ºF)



JULY 2002 SUMMARY FOR PANHANDLE CLIMATE DIVISION (CD1)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ARNETT	332	1	77.4	31	-1.5	98	27	61	14	0	0	385	-48	3.690	31	1.61	2.05	5
BEAVER	593	1	79.8	31	-0.9	105	27	59	16	0	0	460	-26	1.980	31	-0.77	0.55	11
BOISE CITY	908	1	79.1	31	1.9	101	25	56	6	0	0	438	61	0.003	31	-2.69	0.00	29
FARGO	3070	1	*****	0	*****	****	0	****	0	******	******	******	******	3.640	31	*****	1.80	29
GAGE	3407	1	79.6	31	-1.0	102	25	57	13	0	0	452	-33	3.115	31	1.30	1.41	5
GATE	3489	1	81.4	30	-0.2	106	26	61	13	0	0	493	-19	2.720	30	*****	1.50	30
GOODWELL	3628	1	79.7	31	0.2	103	27	60	15	0	0	456	7	3.430	31	1.05	2.29	11
GUYMON	3835	1	80.1	30	*****	103	28	60	16	0	******	453	******	3.520	30	*****	1.01	27
HOOKER	4298	1	81.2	31	1.1	105	25	61	13	0	0	503	36	2.380	31	-0.09	1.30	11
KENTON	4766	1	79.2	31	1.3	103	31	58	6	0	0	439	39	3.403	31	0.30	1.74	6
LAVERNE	5045	1	*****	0	*****	****	0	****	0	******	******	******	******	1.750	31	*****	0.60	5
RANGE	7412	1	*****	0	*****	****	0	****	0	******	******	******	******	1.533	31	*****	0.41	11
REGNIER	7534	1	*****	0	*****	****	0	****	0	******	******	******	******	1.431	31	*****	0.56	6
TURPIN	9017	1	81.4	24	*****	105	27	62	15	0	******	393	******	1.430	24	*****	0.45	27

JULY 2002 SUMMARY FOR NORTH CENTRAL CLIMATE DIVISION (CD2)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ALVA	193	2	81.7	31	-1.2	104	27	63	4	0	0	517	-38	5.680	31	3.20	1.62	11
BILLINGS	755	2	80.5	31	-2.0	102	27	64	13	0	0	481	-63	3.981	31	0.87	1.75	29
BLACKWELL 2E	818	2	80.9	30	-1.0	101	27	65	14	0	0	476	-48	3.462	31	-0.12	1.45	29
BRAMAN	1075	2	*****	0	*****	****	0	****	0	******	******	******	******	3.341	31	*****	1.46	29
CEDARDALE	1620	2	*****	0	*****	****	0	****	0	******	******	******	******	2.663	31	*****	0.93	29
CHEROKEE	1724	2	82.3	28	*****	104	27	62	5	0	******	486	******	4.453	31	1.29	1.85	23
ENID	2912	2	82.2	31	-0.4	103	27	65	13	0	0	533	-13	3.912	31	1.15	1.90	3
FT SUPPLY	3304	2	81.1	22	*****	101	27	55	13	0	******	354	******	2.930	22	*****	1.46	29
FREEDOM	3358	2	81.8	27	*****	104	26	62	14	0	******	454	******	2.990	31	0.31	0.98	28
GREAT SALT P	3740	2	82.0	31	-0.5	104	11	64	4	0	0	527	-17	5.690	31	2.64	2.85	23
HARDY	3909	2	*****	0	*****	****	0	****	0	******	******	******	******	5.660	31	*****	3.27	11
JEFFERSON	4573	2	80.4	31	-2.4	103	27	62	13	0	0	479	-73	5.730	31	2.28	3.05	29
LAHOMA	4950	2	81.7	30	*****	107	27	62	1	0	******	501	******	1.860	30	*****	0.76	29
LAMONT	5013	2	*****	0	*****	****	0	****	0	******	******	******	******	6.534	31	*****	2.62	23
MEDFORD	5768	2	*****	0	*****	****	0	****	0	******	******	******	******	4.520	31	*****	2.49	29
MORRISON	6065	2	*****	0	*****	****	0	****	0	******	******	******	******	2.660	31	*****	1.45	29
MUTUAL	6139	2	80.4	31	-0.4	108	26	61	16	0	0	476	-12	3.381	31	0.77	1.88	5
NEWKIRK	6278	2	80.3	31	-0.7	101	27	64	13	0	0	474	-22	3.040	31	-0.76	1.72	29
ORIENTA	6751	2	*****	0	*****	****	0	****	0	******	******	******	******	2.530	31	*****	0.94	29
PERRY	7012	2	82.1	31	-0.7	101	27	65	13	0	0	532	-19	5.550	31	2.49	1.74	2
PONCA CITY	7201	2	81.0	31	-1.9	100	26	64	13	0	0	497	-58	3.405	31	-0.03	1.74	23
RED ROCK	7505	2	*****	0	*****	****	0	****	0	******	******	******	******	3.600	31	*****	2.30	28
WAYNOKA	9404	2	81.9	31	-1.2	105	26	62	12	0	0	524	-38	3.780	31	1.23	1.33	22
WOODWARD	9760	2	*****	0	*****	****	0	****	0	******	******	******	******	2.761	31	*****	0.78	6

JULY 2002 SUMMARY FOR NORTHEAST CLIMATE DIVISION (CD3)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
BARNSDALL	535	3	81.7	31	0.3	100	26	66	15	0	0	519	11	2.930	31	-0.44	1.42	29
BARTLESVILLE	548	3	81.8	31	-0.4	102	27	65	25	0	0	520	-14	2.561	31	-0.47	1.42	29
BIXBY	782	3	81.3	29	*****	104	26	63	19	0	******	474	******	2.610	30	*****	1.29	28
BURBANK	1256	3	*****	0	*****	****	0	****	0	******	******	******	******	5.221	31	*****	2.08	28
CHELSEA	1717	3	*****	0	*****	****	0	****	0	******	******	******	******	2.410	31	*****	1.62	29
CLAREMORE	1828	3	80.2	31	-0.8	98	27	65	30	0	0	471	-24	5.091	31	1.49	1.88	29
FORAKER	3250	3	*****	0	*****	****	0	****	0	******	******	******	******	2.270	31	*****	1.01	29
HOLLOW	4258	3	*****	0	*****	****	0	****	0	******	******	******	******	4.100	31	*****	1.74	23
HOMINY	4289	3	*****	0	*****	****	0	****	0	******	******	******	******	4.542	31	*****	3.10	29
KANSAS	4672	3	80.4	31	0.5	98	26	65	15	0	0	476	16	2.900	31	-0.19	1.05	13
LENAPAH	5118	3	*****	0	*****	****	0	****	0	******	******	******	******	5.320	31	*****	2.97	23
MANNFORD	5522	3	81.4	30	-0.4	102	26	65	13	0	0	492	-27	4.600	30	*****	3.27	29
MARAMEC	5540	3	*****	0	*****	****	0	****	0	******	******	******	******	3.801	31	*****	2.08	29
MIAMI	5855	3	81.4	25	*****	99	22	62	24	0	******	410	******	4.270	28	*****	3.00	24
NOWATA	6485	3	81.3	31	-0.6	99	22	66	30	0	0	505	-17	4.180	31	1.35	1.80	29
PAWHUSKA	6935	3	81.5	31	-0.2	100	26	66	29	0	0	512	-5	4.950	31	1.06	2.00	29
PAWNEE	6940	3	*****	0	*****	****	0	****	0	******	******	******	******	3.310	31	*****	2.02	29
PRYOR	7309	3	80.4	31	-0.3	98	27	66	30	0	0	477	-11	2.221	31	-1.05	0.87	29
RALSTON	7390	3	80.3	31	-1.0	101	26	64	25	0	0	474	-33	5.110	31	1.97	2.62	29
SPAVINAW	8380	3	81.9	31	-0.4	96	27	68	14	0	0	524	-10	1.833	31	-1.27	1.13	29
TULSA	8992	3	82.7	31	-0.8	101	26	67	14	0	0	550	-19	2.183	31	-0.78	1.04	29
UPPER SPAV	9101	3	79.5	31	*****	99	26	65	17	0	******	451	******	2.491	31	*****	1.10	29
VINITA	9203	3	79.0	13	*****	94	10	64	13	0	******	183	******	0.810	13	*****	0.40	11
WAGONER	9247	3	81.7	31	-0.2	97	26	68	15	0	0	519	-3	3.320	31	0.37	1.52	29
WANN	9298	3	*****	0	*****	****	0	****	0	******	******	******	******	4.271	31	*****	2.20	23

JULY 2002 SUMMARY FOR WEST CENTRAL CLIMATE DIVISION (CD4)

NAME	ID	CD	MEAN TEMP	NUM OBS	FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	DEG DAY	FROM NORM	DEG DAY	FROM NORM	TOT PPT	NUM OBS	FROM NORM	MAX 24-HR	DAY
CANTON DAM	1445	4	81.2	29	*****	103	26	61	13	0	******	469	******	1.500	31	-0.90	0.56	13
CLINTON	1909	4	81.4	31	-1.7	104	27	64	29	0	0	508	-55	3.631	31	1.33	1.60	29
CORDELL	2125	4	80.4	31	*****	102	26	63	1	0	******	476	******	4.491	31	*****	1.70	29
ELK CITY	2849	4	79.3	31	-1.0	103	26	64	30	0	0	445	-31	3.660	31	1.48	1.29	23
ERICK	2944	4	80.0	31	-0.7	106	26	64	15	0	0	467	-20	3.002	31	1.17	1.32	5
GEARY	3497	4	79.9	28	*****	101	21	64	13	0	******	419	******	2.650	29	*****	1.57	21
HAMMON	3871	4	80.2	28	*****	102	26	61	14	0	******	426	******	2.660	28	*****	0.86	29
LEEDEY	5090	4	*****	0	*****	****	0	****	0	******	******	******	******	3.740	31	*****	1.95	29
MACKIE	5463	4	*****	0	*****	****	0	****	0	******	******	******	******	0.900	31	*****	0.70	23
MORAVIA	6035	4	*****	0	*****	****	0	****	0	******	******	******	******	2.940	31	*****	1.32	5
OKEENE	6629	4	82.4	31	-1.0	104	25	63	13	0	0	538	-31	1.680	31	-0.79	0.79	11
RETROP	7565	4	*****	0	*****	****	0	****	0	******	******	******	******	2.970	31	*****	1.20	30
REYDON	7579	4	78.9	20	*****	100	27	62	13	0	******	278	******	3.270	23	*****	2.00	5
SAYRE	7952	4	*****	0	*****	****	0	****	0	******	******	******	******	4.920	31	*****	2.65	5
SWEETWATER	8652	4	*****	0	*****	****	0	****	0	******	******	******	******	3.682	31	*****	2.29	5
TALOGA	8708	4	80.8	31	-0.4	105	26	61	13	0	0	491	-12	2.952	31	0.63	1.65	29
THOMAS	8815	4	*****	0	*****	****	0	****	0	******	******	******	******	0.881	31	*****	0.40	3
WEATHERFORD	9422	4	80.3	31	-3.2	101	26	62	14	0	0	475	-98	3.721	31	1.73	1.40	29

JULY 2002 SUMMARY FOR CENTRAL CLIMATE DIVISION (CD5)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
AMBER	200	5	*****	0	*****	****	0	****	0	******	******	******	******	2.540	31	*****	0.92	25
BLANCHARD	830	5	80.4	31	-2.2	98	27	66	30	0	0	476	-67	4.290	31	1.79	1.86	2
BRISTOW	1144	5	81.6	31	0.4	100	26	65	16	0	0	515	14	2.590	31	0.16	1.03	29
CHANDLER	1684	5	81.1	31	-0.8	101	27	65	14	0	0	501	-22	1.060	31	-1.48	0.36	3
CHICKASHA EXP	1750	5	81.5	31	-2.4	100	22	64	13	0	0	510	-75	3.631	31	1.52	1.29	30
COX CITY	2196	5	*****	0	*****	****	0	****	0	******	******	******	******	3.940	31	*****	0.85	2
CRESCENT	2242	5	*****	0	*****	****	0	****	0	******	******	******	******	1.871	31	*****	1.12	29
CUSHING	2318	5	80.8	31	-1.2	100	27	65	14	0	0	491	-35	2.280	31	-0.61	1.75	29
EDMOND	2788	5	*****	0	*****	****	0	****	0	******	******	******	******	3.610	31	*****	2.50	2
EL RENO	2818	5	80.7	31	-1.3	100	29	62	14	0	0	487	-38	0.760	31	-1.89	0.33	29
GUTHRIE	3821	5	79.9	31	-1.8	99	27	61	13	0	0	461	-55	4.330	31	2.04	3.11	2
HENNESSEY	4055	5	80.6	31	-1.5	102	27	63	14	0	0	485	-44	3.350	31	0.81	0.72	23
INGALLS	4489	5	*****	0	*****	****	0	****	0	******	******	******	******	1.420	31	*****	0.68	29
KINGFISHER	4861	5	81.1	31	-1.2	100	27	63	14	0	0	499	-37	2.020	31	-0.20	0.58	9
KONAWA	4915	5	*****	0	*****	****	0	****	0	******	******	******	******	4.990	31	*****	1.89	1
MARSHALL	5589	5	*****	0	*****	****	0	****	0	******	******	******	******	4.690	31	*****	0.99	23
MEEKER	5779	5	78.7	31	-1.2	97	27	64	14	0	0	426	-33	3.331	31	0.83	0.72	29
MULHALL	6110	5	*****	0	*****	****	0	****	0	******	******	******	******	3.940	31	*****	2.96	2
NORMAN NWS	6386	5	79.9	31	*****	98	26	65	13	0	******	463	******	3.350	31	*****	1.00	1
OKEMAH	6638	5	80.2	31	-2.8	98	26	67	29	0	0	471	-86	2.630	31	-0.35	0.93	2
OKLAHOMA CTY F.	6659	5	*****	0	*****	****	0	****	0	******	******	******	******	5.142	31	*****	2.54	1
OKLAHOMA CTY	6661	5	79.8	31	-2.2	99	26	66	30	0	0	460	-68	4.942	31	2.00	2.33	1
PERKINS	7003	5	*****	0	*****	****	0	****	0	******	******	******	******	1.750	31	*****	0.74	29
PIEDMONT	7068	5	*****	0	*****	****	0	****	0	******	******	******	******	2.620	31	*****	0.81	12
PRAGUE	7264	5	*****	0	*****	****	0	****	0	******	******	******	******	4.960	31	*****	2.21	18
PURCELL	7327	5	78.3	29	*****	94	26	56	29	0	******	386	******	4.190	31	1.43	1.45	6
SEMINOLE	8042	5	80.2	30	-2.8	98	27	66	30	0	0	456	-101	4.511	30	*****	1.10	29
SHAWNEE	8110	5	*****	0	*****	****	0	****	0	******	******	******	******	4.801	31	*****	1.45	3
STELLA	8479	5	*****	0	*****	****	0	****	0	******	******	******	******	4.601	31	*****	1.50	4
STILLWATER	8501	5	82.4	29	*****	101	23	66	13	0	******	505	******	1.832	30	*****	0.87	29
TECUMSEH	8751	5	*****	0	*****	****	0	****	0	******	******	******	******	3.270	31	*****	2.14	2
UNION CITY	9086	5	*****	0	*****	****	0	****	0	******	******	******	******	2.631	31	*****	0.85	29
WANETTE	9291	5	80.4	27	*****	99	27	65	25	0	******	415	******	2.240	27	*****	0.90	2
WEWOKA	9575	5	*****	0	*****	****	0	****	0	******	******	******	******	4.418	31	*****	1.25	17

JULY 2002 SUMMARY FOR EAST CENTRAL CLIMATE DIVISION (CD6)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ASHLAND	364	6	*****	0	*****	****	0	****	0	******	******	******	******	5.050	31	*****	2.09	2
BEGGS	631	6	*****	0	*****	****	0	****	0	******	******	******	******	1.990	31	*****	0.62	29
CALVIN	1391	6	*****	0	*****	****	0	****	0	******	******	******	******	3.350	31	*****	1.50	2
CHECOTAH	1711	6	81.2	31	*****	99	26	67	15	0	******	503	******	3.432	31	*****	1.03	2
CLAYTON	1858	6	*****	0	*****	****	0	****	0	******	******	******	******	4.330	31	*****	1.11	31
DEWAR	2485	6	*****	0	*****	****	0	****	0	******	******	******	******	3.984	31	*****	0.88	29
HASKELL	3956	6	*****	0	*****	****	0	****	0	******	******	******	******	3.290	31	*****	0.82	29
HOLDENVILLE	4235	6	82.0	31	0.7	100	26	66	29	0	0	527	22	4.514	31	1.87	1.50	17
LAKE EUFAULA	4975	6	78.7	28	*****	94	27	66	2	0	******	383	******	4.181	28	*****	1.06	4
LYONS	5437	6	*****	0	*****	****	0	****	0	******	******	******	******	0.912	31	*****	0.51	3
MCCURTAIN	5693	6	82.4	31	-0.4	99	26	66	15	0	0	538	-12	2.506	31	-0.70	0.65	18
MCALESTER	5664	6	81.1	31	-1.2	98	25	66	15	0	0	500	-38	1.802	31	-0.98	0.62	1
MUSKOGEE	6130	6	80.6	28	*****	98	26	66	30	0	******	436	******	4.980	28	*****	1.92	29
OKMULGEE	6670	6	79.6	5	*****	95	25	66	10	0	******	73	******	4.070	31	0.95	1.50	17
OKTAHA	6678	6	*****	0	*****	****	0	****	0	******	******	******	******	5.360	31	*****	1.91	18
SALLISAW	7862	6	80.8	31	-0.4	97	27	67	16	0	0	490	-12	3.820	31	1.00	1.10	19
SCIPIO	7979	6	*****	0	*****	****	0	****	0	******	******	******	******	2.740	31	*****	0.82	2
SHORT	8170	6	*****	0	*****	****	0	****	0	******	******	******	******	5.690	31	*****	2.30	19
STILWELL	8506	6	78.0	31	-0.7	96	26	59	24	0	0	403	-20	0.830	31	-2.38	0.22	3
TAHLEQUAH	8677	6	79.4	31	-1.0	97	26	64	15	0	0	446	-32	2.380	31	-1.10	1.40	29
WEBBERS FALL	9445	6	*****	0	*****	****	0	****	0	******	******	******	******	1.621	31	-1.08	0.51	18
WETUMKA	9571	6	*****	0	*****	****	0	****	0	******	******	******	******	4.284	31	*****	1.61	2

JULY 2002 SUMMARY FOR SOUTHWEST CLIMATE DIVISION (CD7)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ALTUS	179	7	81.7	31	-1.9	104	26	66	29	0	0	519	-55	4.080	31	2.08	1.22	4
ALTUS DAM	184	7	82.8	31	-1.5	104	26	67	30	0	0	552	-46	3.410	31	1.33	1.84	5
ANADARKO	224	7	79.1	29	*****	99	26	62	14	0	******	408	******	2.860	29	*****	0.97	29
APACHE	260	7	*****	0	*****	****	0	****	0	******	******	******	******	0.330	31	*****	0.33	3
CARNEGIE	1504	7	81.4	28	*****	103	25	63	13	0	******	460	******	2.772	31	0.59	0.64	2
CHATTANOOGA	1706	7	80.7	29	*****	102	26	65	1	0	******	454	******	3.830	29	*****	1.06	4
DUNCAN 11 W	2668	7	*****	0	*****	****	0	****	0	******	******	******	******	1.860	25	*****	0.69	4
FREDERICK	3353	7	81.1	29	*****	103	24	65	1	0	******	466	******	4.810	30	*****	1.17	24
HEADRICK	3998	7	*****	0	*****	****	0	****	0	******	******	******	******	7.521	31	*****	2.85	7
HOLLIS	4249	7	81.6	31	-1.8	105	25	65	1	0	0	514	-57	2.463	31	0.69	0.63	8
HOLLIS	4249	7	81.4	31	-2.0	105	26	64	30	0	0	510	-61	3.940	31	2.17	1.81	5
LAWTON	5063	7	81.3	28	*****	101	26	60	29	0	******	456	******	0.690	27	*****	0.33	2
LOOKEBA	5329	7	*****	0	*****	****	0	****	0	******	******	******	******	3.180	31	*****	0.74	2
MANGUM	5509	7	80.0	30	-2.1	102	26	66	30	0	0	449	-82	2.651	31	0.43	0.90	4
RANDLETT	7403	7	*****	0	*****	****	0	****	0	******	******	******	******	5.351	31	*****	1.45	4
ROOSEVELT	7727	7	*****	0	*****	****	0	****	0	******	******	******	******	2.820	31	*****	0.63	5
SEDAN	8016	7	*****	0	*****	****	0	****	0	******	******	******	******	4.590	31	*****	1.12	29
SNYDER	8299	7	*****	0	*****	****	0	****	0	******	******	******	******	4.590	29	*****	1.05	1
VINSON	9212	7	*****	0	*****	****	0	****	0	******	******	******	******	2.660	31	*****	1.10	5
WALTERS	9278	7	80.4	31	-2.7	100	26	65	2	0	0	479	-82	5.900	31	3.66	1.50	29
WICHITA MT	9629	7	78.6	29	*****	99	26	58	17	0	******	395	******	7.620	31	5.20	3.14	1

JULY 2002 SUMMARY FOR SOUTH CENTRAL CLIMATE DIVISION (CD8)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ADA	17	8	80.2	31	-1.6	95	26	65	30	0	0	472	-49	4.042	31	1.34	2.03	2
ALLEN	147	8	*****	0	*****	****	0	****	0	******	******	******	******	3.000	31	*****	1.50	1
ARDMORE	292	8	82.5	31	-1.2	98	25	69	28	0	0	544	-35	4.590	31	2.10	1.28	29
ATOKA DAM	394	8	80.8	26	*****	98	26	66	15	0	******	410	******	5.211	31	2.52	2.46	2
BOKCHITO	917	8	*****	0	*****	****	0	****	0	******	******	******	******	3.110	31	*****	1.61	2
CANEY	1437	8	*****	0	*****	****	0	****	0	******	******	******	******	1.670	31	*****	0.50	3
CENTRAHOMA	1648	8	79.5	26	*****	96	27	66	16	0	******	378	******	3.150	26	*****	1.40	2
COLEMAN	2011	8	80.2	31	*****	96	25	65	12	0	******	472	******	3.950	31	*****	1.31	2
COMANCHE	2054	8	*****	0	*****	****	0	****	0	******	******	******	******	4.180	31	*****	0.85	3
DAISY	2354	8	*****	0	*****	****	0	****	0	******	******	******	******	4.492	31	*****	1.13	15
DUNCAN	2660	8	80.3	26	*****	98	26	65	29	0	******	398	******	5.991	28	*****	2.07	30
DURANT	2678	8	80.9	25	*****	96	26	68	15	0	******	397	******	2.621	31	-0.17	1.22	1
ELMORE CITY	2872	8	*****	0	*****	****	0	****	0	******	******	******	******	1.630	31	*****	0.57	1
GRADY	3688	8	*****	0	*****	****	0	****	0	******	******	******	******	4.880	31	*****	2.31	1
HEALDTON	4001	8	80.3	30	-2.5	98	26	67	30	0	0	460	-92	3.940	30	*****	1.28	1
HENNEPIN	4052	8	*****	0	*****	****	0	****	0	******	******	******	******	3.710	31	*****	1.35	3
KETCHUM RAN	4780	8	*****	0	*****	****	0	****	0	******	******	******	******	2.880	31	*****	1.55	17
KINGSTON	4865	8	*****	0	*****	****	0	****	0	******	******	******	******	4.300	31	*****	1.61	25
LINDSAY	5216	8	80.6	31	-1.7	101	24	65	24	0	0	484	-51	4.400	31	2.14	1.48	1
LOCO	5247	8	*****	0	*****	****	0	****	0	******	******	******	******	3.960	31	*****	1.20	29
MADILL	5468	8	82.6	30	-0.4	100	25	68	2	0	0	529	-26	3.221	30	*****	1.00	18
MARIETTA 5 SW	5563	8	73.7	6	*****	87	6	63	1	0	******	52	******	8.590	31	6.42	3.37	31
MARLOW	5581	8	80.5	31	*****	102	24	64	29	0	******	481	******	4.821	31	*****	1.54	29
MCGEE CREEK	5713	8	81.7	31	-0.2	98	27	67	15	0	0	519	-3	4.530	31	1.93	2.14	3
PAULS VALLEY	6926	8	80.3	31	-1.9	100	27	65	30	0	0	476	-56	2.840	31	0.47	1.15	29
PONTOTOC	7214	8	*****	0	*****	****	0	****	0	******	******	******	******	3.670	31	*****	1.51	2
TISHOMINGO	8884	8	*****	0	*****	****	0	****	0	******	******	******	******	3.390	31	*****	1.30	24
TUSSY	9032	8	*****	0	*****	****	0	****	0	******	******	******	******	3.781	30	*****	0.90	29
WAURIKA	9395	8	81.8	31	-3.3	101	25	66	1	0	0	521	-103	4.951	31	3.11	2.02	29

JULY 2002 SUMMARY FOR SOUTHEAST CLIMATE DIVISION (CD9)

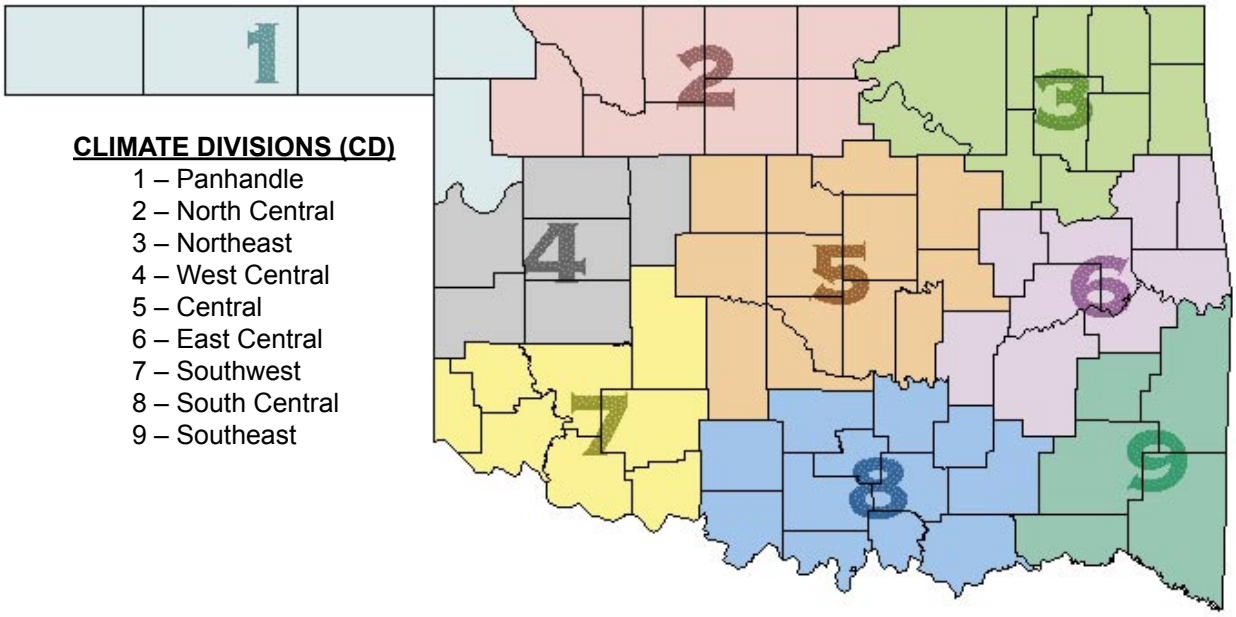
NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ANTLERS	256	9	79.9	31	-1.8	96	26	66	15	0	0	463	-55	3.080	31	-0.17	1.34	25
BATTIEST	567	9	78.3	18	*****	94	22	64	20	0	******	239	******	2.110	20	*****	0.97	23
BENGAL	670	9	*****	0	*****	****	0	****	0	******	******	******	******	2.980	31	*****	1.03	30
BROKEN BOW	1162	9	*****	0	*****	****	0	****	0	******	******	******	******	3.340	31	*****	1.15	3
FANSHAWE	3065	9	*****	0	*****	****	0	****	0	******	******	******	******	5.330	31	*****	1.44	30
HEAVENER	4008	9	*****	0	*****	****	0	****	0	******	******	******	******	3.420	31	*****	1.63	4
HUGO	4384	9	81.6	31	0.1	97	26	68	17	0	0	515	6	2.220	31	-0.82	0.67	1
IDABEL	4451	9	82.6	30	0.9	99	10	69	16	0	0	527	10	2.401	31	-1.25	1.58	2
PAGE	6842	9	79.0	29	*****	94	23	61	22	0	******	406	******	3.501	30	*****	1.39	24
SMITHVILLE	8285	9	78.7	24	*****	97	22	62	15	0	******	329	******	3.115	31	-0.95	1.32	1
SPIRO	8416	9	*****	0	*****	****	0	****	0	******	******	******	******	3.320	31	*****	0.97	15
TUSKAHOMA	9023	9	80.5	31	-1.3	95	26	65	15	0	0	479	-41	7.700	31	3.99	1.40	13
VALLIANT	9118	9	*****	0	*****	****	0	****	0	******	******	******	******	1.900	31	*****	0.87	2
WILBURTON	9634	9	80.3	31	-1.3	98	25	64	16	0	0	476	-39	5.270	31	1.79	1.52	29
WISTER	9724	9	81.2	30	*****	97	26	64	16	0	******	485	******	2.710	31	*****	1.32	30

JULY 2002 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	79.7	9	0.2	106	26	56	6	0	0	453	3	2.40	11	-0.12	2.29	11
NORTH CENTRAL	2	81.3	12	-0.9	108	26	55	13	0	0	501	-31	4.06	22	1.05	3.27	11
NORTHEAST	3	81.1	13	-0.3	104	26	62	24	0	0	499	-8	3.57	21	0.4	3.27	29
WEST CENTRAL	4	80.7	7	-1.1	106	26	61	13	0	0	485	-35	2.98	15	0.85	2.65	5
CENTRAL	5	80.5	14	-1.7	102	27	56	29	0	0	479	-51	3.35	31	0.78	3.11	2
EAST CENTRAL	6	80.7	7	-0.5	100	26	59	24	0	0	487	-15	3.30	20	0.37	2.30	19
SOUTHWEST	7	81.3	6	-1.7	105	26	58	17	0	0	504	-56	3.95	15	1.84	3.14	1
SOUTH CENTRAL	8	81.1	10	-1.7	102	24	63	1	0	0	496	-53	3.98	24	1.56	3.37	31
SOUTHEAST	9	81.0	6	0.2	99	10	61	22	0	0	490	3	3.60	13	0.01	1.63	4

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 JULY 2002

NAME	MEAN TEMP	MAX TEMP	MAX DAY	MIN TEMP	MIN DAY	HDD	CDD	TOT PPT	MAX 24-HR	MAX DAY
PANHANDLE										
Arnett	79.4	102	25	62	13	0	447	2.39	1.49	5
Beaver	81.1	106	26	60	10	0	499	2.31	.63	22
Boise City	78.0	100	25	56	7	0	403	.36	.20	27
Buffalo	82.2	106	25	62	13	0	532	2.81	1.25	28
NORTH CENTRAL										
Alva	81.2	103	26	62	4	0	502	7.60	3.64	28
Blackwell	80.3	101	26	65	13	0	473	4.37	1.22	28
Breckenridge	81.2	102	26	63	15	0	502	3.66	1.36	29
Cherokee	82.2	104	26	64	13	0	532	5.24	1.62	22
Fairview	83.2	105	25	62	4	****	****	2.05	.75	29
Freedom	81.6	106	26	61	13	0	515	3.13	1.65	28
Lahoma	81.1	105	26	63	13	0	500	1.79	.59	29
NORTHEAST										
Bixby	80.7	98	26	67	30	0	487	3.09	.99	29
Burbank	79.6	100	26	64	25	0	451	5.76	1.97	11
Claremore	*****	***	***	***	***	****	****	*****	*****	***
Copan	80.8	99	22	67	14	0	491	4.14	1.47	23
Foraker	*****	***	***	***	***	****	****	*****	*****	***
Inola	81.0	100	26	65	15	0	496	2.02	1.24	29
Jay	79.4	96	26	64	15	0	445	4.63	1.29	4
Miami	79.8	97	22	64	15	0	460	4.49	1.98	22
WEST CENTRAL										
Bessie	80.8	101	25	64	13	0	491	5.30	1.46	29
Butler	81.6	105	25	63	13	0	514	3.11	1.91	29
Camargo	80.7	105	25	61	13	0	487	1.80	.70	29
Cheyenne	78.7	100	25	62	13	0	426	5.38	2.06	5
Erick	79.4	103	25	64	14	0	448	3.95	2.05	5
CENTRAL										
Acme	80.0	99	25	64	13	0	465	3.44	1.03	29
Bowlegs	79.3	95	26	65	13	0	443	5.35	1.65	17
Bristow	79.5	97	26	64	30	0	449	3.59	1.19	10
Chandler	80.3	99	26	64	13	0	473	2.71	1.36	29
Chickasha	81.3	101	22	65	6	0	507	3.18	1.04	24
El Reno	80.3	102	22	59	13	0	473	.90	.37	29
Guthrie	81.1	100	22	63	13	0	499	3.38	2.59	1
Kingfisher	82.1	103	22	64	13	0	529	1.68	.80	29
Marena	80.0	100	26	64	13	0	465	1.75	1.10	1
Marshall	81.2	104	22	63	13	0	502	3.61	1.02	1
EAST CENTRAL										
Calvin	80.3	96	24	66	25	0	474	4.35	1.24	29
Cookson	79.5	96	26	63	15	0	448	3.95	1.86	2
Eufaula	81.6	98	26	66	15	0	513	2.93	1.02	1
Haskell	80.8	98	26	66	15	0	489	3.46	.91	1
Hectorville	81.4	100	26	67	13	0	507	2.47	.94	1
McAlester	81.0	99	25	66	15	0	495	2.02	.68	1
Okmulgee	80.2	97	26	65	30	0	471	4.45	1.33	29
SOUTHWEST										
Altus	81.1	101	25	66	1	0	498	3.58	1.12	4
Apache	80.3	100	24	64	13	0	474	2.60	.50	1
Fort Cobb	80.3	100	24	65	1	0	474	1.83	.49	1
Grandfield	81.9	104	25	66	1	0	525	5.65	1.94	29
Hinton	80.5	103	25	62	13	0	481	2.26	.62	29
Hobart	80.7	103	25	65	1	0	487	3.19	.86	8
SOUTH CENTRAL										
Ada	80.5	98	26	66	29	0	480	3.48	1.83	1
Ardmore	80.7	97	24	67	1	0	488	2.29	1.26	30
Bee	82.5	99	22	66	14	****	****	2.74	1.31	24
Burneyville	*****	***	***	***	***	****	****	*****	*****	***
Byars	80.0	96	26	66	29	0	466	3.95	1.52	29
Centrahoma	80.1	96	25	66	15	0	468	3.45	1.61	1
Durant	82.0	98	25	69	15	0	528	3.07	1.10	2
Ketchum Ranch	79.9	98	24	66	29	0	461	5.23	1.70	29
SOUTHEAST										
Antlers	80.7	97	25	65	15	****	****	2.59	1.03	30
Broken Bow	80.4	96	31	63	15	0	477	2.38	.90	14
Clayton	81.1	97	25	66	15	****	****	7.84	2.16	2
Cloudy	80.5	97	25	65	15	0	480	1.14	.44	1
Hugo	81.5	97	25	67	15	0	511	1.23	.76	1

NAME	MEAN TEMP	MAX TEMP	MAX DAY	MIN TEMP	MIN DAY	HDD	CDD	TOT PPT	MAX 24-HR	MAX DAY
Goodwell	78.9	102	26	60	14	0	432	2.63	1.00	11
Hooker	80.9	106	25	61	14	0	494	1.37	.88	10
Kenton	78.6	101	31	60	13	0	422	1.21	.61	22
Slapout	*****	***	***	***	***	****	****	*****	*****	***
May Ranch	*****	***	***	***	***	****	****	*****	*****	***
Medford	81.0	102	26	63	13	0	496	5.95	2.15	28
Newkirk	79.6	98	26	64	13	0	454	4.50	2.04	11
Red Rock	80.2	102	26	63	13	0	472	4.55	1.12	29
Seiling	80.9	106	25	61	13	0	492	2.02	1.16	29
Woodward	80.8	104	25	60	13	0	490	2.95	1.11	5
Nowata	80.3	99	22	64	15	0	473	5.26	2.64	22
Pawnee	80.1	101	26	64	13	0	469	3.14	1.47	29
Porter	80.9	98	26	67	15	0	492	4.31	1.82	29
Pryor	80.4	99	26	65	30	0	477	1.60	.83	29
Skiatook	80.4	100	26	66	29	0	478	2.67	1.21	29
Vinita	79.5	96	22	64	15	0	449	4.28	1.80	2
Wynona	80.2	100	22	66	25	0	472	4.63	2.04	22
Putnam	80.4	105	25	60	13	0	478	2.25	1.31	29
Retrop	80.6	104	25	65	1	0	484	3.26	1.11	29
Watonga	80.6	101	22	61	13	0	483	2.60	.92	22
Weatherford	80.9	103	25	63	13	0	494	2.59	1.63	29
Minco	80.4	99	26	63	13	0	477	2.04	.55	1
Ninnekah	81.3	102	24	64	13	0	505	3.19	1.28	29
Norman	80.9	99	26	65	13	0	492	3.46	1.02	1
Oilton	80.3	100	26	63	13	0	473	3.65	2.63	29
Okemah	80.5	98	26	66	13	0	480	3.77	1.08	1
Perkins	81.7	103	26	64	13	0	518	1.40	.64	1
Shawnee	81.2	100	26	65	13	0	501	*****	*****	***
Spencer	80.1	97	22	62	13	0	467	4.11	1.20	24
Stillwater	81.1	101	26	63	13	0	498	1.88	.82	1
Washington	79.9	98	26	65	13	0	461	4.00	1.48	1
Sallisaw	80.9	97	26	66	15	0	493	4.71	1.92	18
Stigler	80.6	97	26	64	15	0	484	2.72	.88	2
Stuart	80.5	97	25	66	15	0	479	3.38	1.92	1
Tahlequah	80.1	98	26	65	15	0	468	1.61	.63	29
Webbers Falls	82.9	103	26	66	15	****	****	2.19	.86	17
Westville	79.7	98	26	64	15	0	456	1.69	.84	29
Hollis	80.5	104	25	65	30	0	481	3.78	1.89	4
Mangum	80.3	104	25	63	25	0	474	2.25	.88	4
Medicine Park	80.5	101	25	64	1	0	481	*****	*****	***
Tipton	81.8	103	24	67	1	0	520	4.88	1.47	24
Walters	81.5	102	24	66	1	0	512	5.53	2.27	29
Lane	81.3	97	25	67	25	0	505	2.66	1.03	1
Madill	81.4	97	24	68	14	0	509	4.14	1.38	1
Pauls Valley	81.6	98	26	66	29	0	516	2.88	1.27	29
ingling	80.8	99	25	67	29	0	488	3.52	1.53	29
Sulphur	80.4	95	26	67	29	0	477	3.45	1.25	1
Tishomingo	80.4	98	24	65	16	0	478	5.52	2.86	30
Vanoss	*****	***	***	***	***	****	****	*****	*****	***
Waurika	81.9	102	24	66	1	0	523	5.66	2.18	29
Idabel	82.2	97	22	66	15	0	532	1.41	.64	1
Mt Herman	79.7	94	25	64	15	0	456	2.77	.64	2
Talihina	81.2	98	25	63	15	0	501	4.05	1.26	30
Wilburton	80.4	98	26	65	14	0	477	4.86	2.08	30
Wister	80.7	97	26	64	15	0	488	4.55	1.56	13

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

CD	MAX TEMP	DATE	LOCATION	MIN TEMP	DATE	LOCATION	24-HOUR PRECIP	DATE	LOCATION	MONTHLY PRECIP	LOCATION
1	106	26	GATE	56	6	BOISE CITY	2.29	11	GOODWELL	3.69	ARNETT
2	108	26	MUTUAL	55	13	FT SUPPLY	3.27	11	HARDY	6.53	LAMONT
3	104	26	BIXBY	62	24	MIAMI	3.27	29	MANNFORD	5.32	LENAPAH
4	106	26	ERICK	61	13	CANTON DAM	2.65	5	SAYRE	4.92	SAYRE
				61	13	HAMMON					
				61	14	HAMMON					
				61	13	TALOGA					
5	102	23	HENNESSEY	56	29	PURCELL	3.11	2	GUTHRIE	5.14	OKLAHOMA CTY
	102	27	HENNESSEY								
6	100	26	HOLDENVILLE	59	24	STILWELL	2.30	19	SHORT	5.69	SHORT
7	105	25	HOLLIS	58	17	WICHITA MT	3.14	1	WICHITA MT	7.62	WICHITA MT
	105	25	HOLLIS								
	105	26	HOLLIS								
8	102	24	MARLOW	57	23	DUNCAN	3.37	31	MARIETTA	8.59	MARIETTA
9	99	10	IDABEL	61	15	PAGE	1.63	4	HEAVENER	7.70	TUSKAHOMA
				61	22	PAGE					

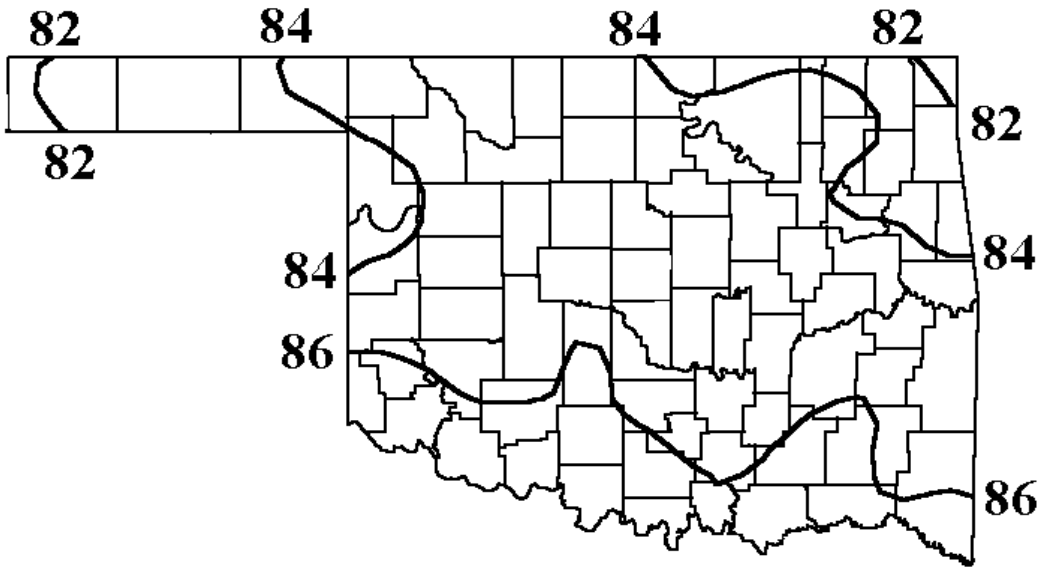
TABLE OF 2001/2002 COMPARISONS

	July Temperature (F)		July Precipitation (in.)	
Station	**2001**	**2002**	**2001**	**2002**
Arnett	83.0	77.4	1.33	3.690
Enid	88.5	82.2	0.21	3.912
Tulsa	87.3	82.7	0.51	2.183
Elk City	85.5	79.3	0.13	3.660
Oklahoma City	85.7	79.8	1.27	4.942
McAlester	84.5	81.1	0.20	1.802
Altus Irs Station	88.7	81.7	0.24	4.080
Ardmore	87.4	82.5	0.00	4.590
Idabel	84.9	82.6	1.67	2.401

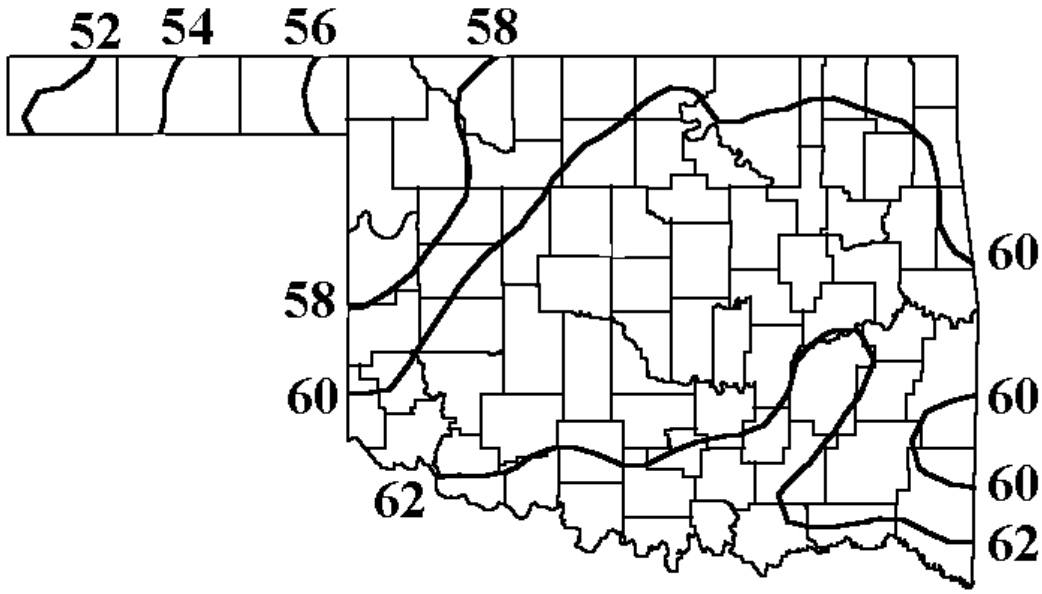
JULY 2002 STATEWIDE EXTREMES

VARIABLE	STATION	DIVISION	OBSERVATION	DATE
Minimum temperature (F)	Ft. Supply	2	55	13
Maximum temperature (F)	Mutual	2	108	26
Maximum 24-hour Precipitation	Marietta	8	3.37	31

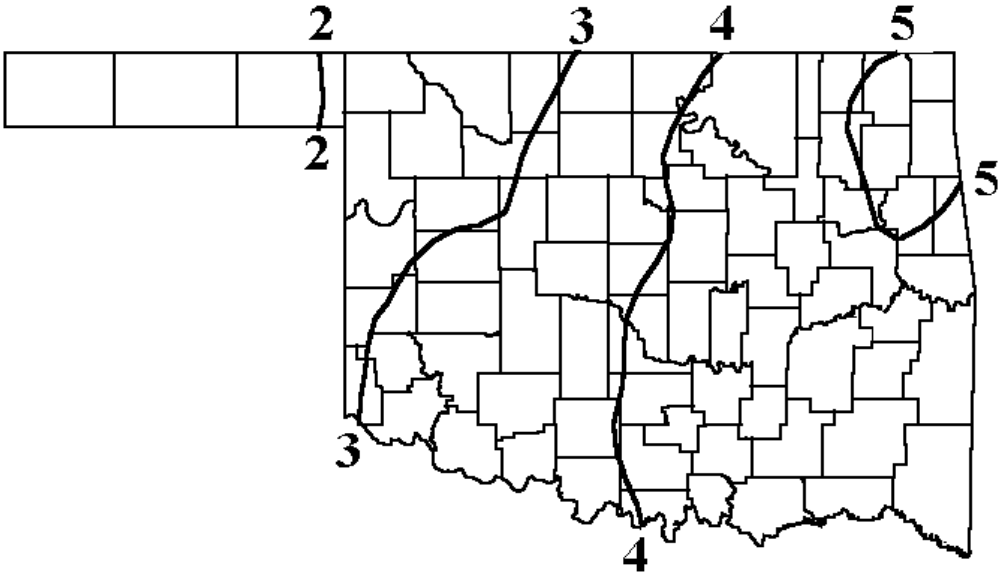
SEPTEMBER NORMAL DAILY MAXIMUM TEMPERATURE (ºF)



SEPTEMBER NORMAL DAILY MINIMUM TEMPERATURE (ºF)



SEPTEMBER NORMAL MONTHLY PRECIPITATION (INCHES)



SEPTEMBER TORNADO STATISTICS

The most tornadoes reported in **SEPTEMBER** for Oklahoma was **(16)** in **1992**.

The average number of tornadoes in **SEPTEMBER** for Oklahoma is **(2.1)**.

OUTLOOK FOR SEPTEMBER 2002 THROUGH NOVEMBER 2002

BASED ON SEASONAL OUTLOOK PROVIDED BY THE CLIMATE PREDICTION CENTER

Temperature: Near Normal Temperature Statewide

Precipitation: Near Normal Precipitation Statewide

OKLAHOMA CITY CLIMATE CALENDAR

SEPTEMBER

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	2002	Record High	Year	Lowest Max	Year	Ave. Low	2002	Highest Min.	Year	Record Low	Year	Avg. Precip.	2002	Greatest Precip.	Year
1	78	89		106	2000	69	1994	1994		80	1951	53	1956	0.11		2.53	1974
2	77	88		108	2000	68	1967	1967		78	1961	52	1974	0.11		4.08	1991
3	77	88		108	2000	71	1974	1974		80	1939	47	1974	0.12		3.16	1926
4	77	88		107	1998	66	1961	1961		79	1970	46	1974	0.12		1.74	1940
5	76	87		106	1998	64	1962	1962		77	1939	47	1974	0.12		1.65	1992
6	76	87		106	1947	71	1918	1918		77	1998	51	1974	0.12		2.20	1895
7	76	87		102	1998	66	1962	1962		77	1936	49	1898	0.12		1.37	1905
8	75	86		101	1922	73	1995	1995		80	1896	48	1957	0.12		3.16	1993
9	75	86		99	1970	67	1929	1929		77	1896	51	1962	0.13		1.88	1891
10	75	85		101	2000	64	1929	1929		77	1938	47	1962	0.13		2.40	1925
11	75	85		105	2000	60	1898	1898		77	1936	48	1940	0.13		2.36	1906
12	74	85		102	1930	64	1989	1989		78	1930	45	1898	0.13		3.03	1961
13	74	84		102	1965	53	1989	1989		78	1978	45	1902	0.13		1.88	1985
14	74	84		102	1965	58	1975	1975		77	1965	47	1993	0.13		3.61	1957
15	74	84		100	1965	57	1903	1903		76	1956	44	1993	0.13		2.35	1925
16	73	84		101	1978	59	1903	1903		76	1965	44	1993	0.13		1.97	1991
17	72	83		99	1972	58	1973	1973		78	1978	44	1903	0.13		1.42	1936
18	72	83		99	1952	53	1971	1971		78	1978	42	1981	0.13		3.10	1923
19	72	83		98	1954	56	1971	1971		76	1978	44	1971	0.14		1.81	1942
20	72	82		100	1954	52	1896	1896		76	1954	41	1971	0.14		3.82	1990
21	71	82		97	1998	59	1995	1995		76	1931	39	1983	0.14		2.04	1990
22	71	82		96	2000	58	1995	1995		76	1931	41	1995	0.13		7.53	1970
23	71	81		97	1931	58	1925	1925		75	1931	38	1995	0.13		1.47	1988
24	70	81		98	1939	56	1974	1974		74	1958	36	1989	0.13		3.87	1959
25	70	81		97	1939	53	1926	1926		74	1933	41	1989	0.13		1.41	1893
26	69	80		98	1977	46	1926	1926		73	1998	35	1912	0.13		1.74	1973
27	69	80		96	1953	47	1927	1927		72	1923	38	1942	0.13		1.75	1936
28	69	80		104	1953	53	1984	1984		73	1977	37	1896	0.13		2.88	1945
29	68	80		98	1953	47	1945	1945		71	1933	39	1916	0.13		2.90	1986
30	68	79		100	1977	54	1985	1985		72	1977	36	1895	0.13		1.79	1986
MONTH	**73**	**83.8**		**107**	**1998**	**46**	**1926**	**1926**		**80**	**1951**	**35**	**1912**	**3.84**		**7.53**	**1970**

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

TULSA CLIMATE CALENDAR

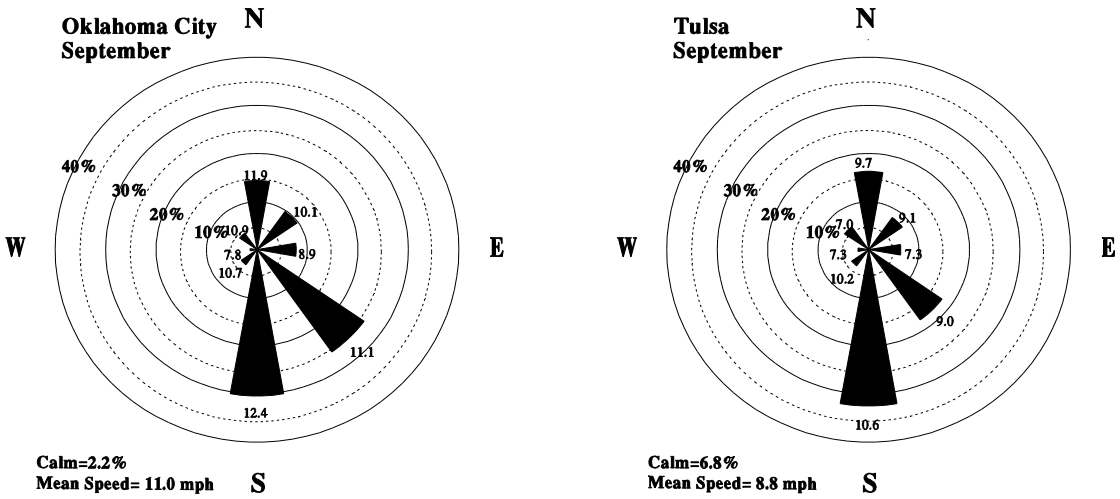
SEPTEMBER

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	2002	Record High	Year	Lowest Max	Year	Ave. Low	2002	Highest Min.	Year	Record Low	Year	Avg. Precip.	2002	Greatest Precip.	Year
1	78	89		108	2000	69	1994	68		79	1936	48	1967	0.13		2.24	1974
2	78	89		109	1939	68	1974	68		82	1936	51	1974	0.14		2.38	1934
3	78	89		109	1939	70	1974	68		82	1995	47	1974	0.14		3.27	1962
4	78	89		107	1198	66	1967	68		79	1947	46	1974	0.14		6.39	1940
5	78	89		107	1913	70	1962	67		79	1985	49	1974	0.15		1.62	1926
6	78	89		107	1907	69	1962	66		80	1998	52	1974	0.15		4.05	1971
7	77	88		106	1936	65	1986	65		79	1985	50	1918	0.15		1.90	1905
8	76	87		103	1925	66	1995	65		78	1983	50	1956	0.15		2.26	1941
9	75	86		102	1909	70	1941	65		76	1991	51	1943	0.16		2.67	1951
10	75	85		105	1936	72	1940	65		75	1991	48	1968	0.16		3.10	1999
11	75	85		103	1909	72	1940	65		79	1936	45	1940	0.16		2.18	1925
12	74	84		102	1930	68	1989	65		78	1936	48	1959	0.16		1.75	1989
13	74	84		103	1965	55	1989	65		78	1936	49	1960	0.16		2.45	1993
14	74	84		103	1965	57	1989	65		78	1931	46	1961	0.16		2.15	1957
15	74	84		103	1956	60	1949	64		79	1956	42	1993	0.17		2.87	1962
16	73	84		103	1956	66	1996	63		77	1956	44	1993	0.17		5.78	1971
17	73	83		104	1931	61	1971	62		79	1978	44	1981	0.17		1.76	1923
18	72	83		100	1952	56	1971	62		80	1978	42	1981	0.17		2.39	1971
19	72	83		100	1954	58	1971	61		79	1954	45	1991	0.17		4.30	1974
20	72	83		102	1954	64	1995	61		81	1910	39	1938	0.17		1.98	1915
21	72	82		98	1980	57	1995	61		78	1980	38	1918	0.17		3.50	1902
22	71	82		99	1921	58	1995	60		75	1931	37	1995	0.17		3.78	1970
23	71	82		101	1931	60	1994	60		74	1931	37	1995	0.17		2.25	1997
24	71	81		99	1931	58	1974	60		76	1958	37	1989	0.17		2.33	1945
25	71	81		99	1939	58	1913	60		75	1986	42	2001	0.16		2.07	1959
26	70	81		96	1938	48	1926	59		73	1998	37	1912	0.16		2.37	1996
27	69	80		96	1954	51	1926	58		73	1977	35	1942	0.16		2.94	1920
28	69	80		102	1953	55	1984	58		73	1986	38	1908	0.16		1.93	1945
29	68	79		98	1953	55	1945	57		73	1955	37	1916	0.16		4.45	1986
30	68	79		99	1979	59	1959	57		72	1977	35	1984	0.15		1.85	1959
MONTH	**73.5**	**84.1**		**109**	**1939**	**48**	**1926**	**62.9**		**82**	**1995**	**35**	**1984**	**0.16**		**6.39**	**1940**

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

SEPTEMBER WIND ROSES



September 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.

SEPTEMBER SUNRISE/SUNSET TIMES FOR 2002

ALL TIMES ARE CENTRAL STANDARD TIME

OKLAHOMA CITY			TULSA		
DATE	SUNRISE	SUNSET	DATE	SUNRISE	SUNSET
9/1/02	6:02 AM	6:57 PM	9/1/02	5:55 AM	6:52 PM
9/2/02	6:03 AM	6:56 PM	9/2/02	5:56 AM	6:50 PM
9/3/02	6:04 AM	6:54 PM	9/3/02	5:57 AM	6:49 PM
9/4/02	6:05 AM	6:53 PM	9/4/02	5:58 AM	6:47 PM
9/5/02	6:05 AM	6:52 PM	9/5/02	5:58 AM	6:46 PM
9/6/02	6:06 AM	6:50 PM	9/6/02	5:59 AM	6:44 PM
9/7/02	6:07 AM	6:49 PM	9/7/02	6:00 AM	6:43 PM
9/8/02	6:08 AM	6:47 PM	9/8/02	6:01 AM	6:41 PM
9/9/02	6:08 AM	6:46 PM	9/9/02	6:02 AM	6:40 PM
9/10/02	6:09 AM	6:44 PM	9/10/02	6:02 AM	6:39 PM
9/11/02	6:10 AM	6:43 PM	9/11/02	6:03 AM	6:37 PM
9/12/02	6:11 AM	6:42 PM	9/12/02	6:04 AM	6:36 PM
9/13/02	6:11 AM	6:40 PM	9/13/02	6:05 AM	6:34 PM
9/14/02	6:12 AM	6:39 PM	9/14/02	6:05 AM	6:33 PM
9/15/02	6:13 AM	6:37 PM	9/15/02	6:06 AM	6:31 PM
9/16/02	6:14 AM	6:36 PM	9/16/02	6:07 AM	6:30 PM
9/17/02	6:14 AM	6:34 PM	9/17/02	6:08 AM	6:28 PM
9/18/02	6:15 AM	6:33 PM	9/18/02	6:09 AM	6:27 PM
9/19/02	6:16 AM	6:31 PM	9/19/02	6:09 AM	6:25 PM
9/20/02	6:17 AM	6:30 PM	9/20/02	6:10 AM	6:24 PM
9/21/02	6:17 AM	6:28 PM	9/21/02	6:11 AM	6:22 PM
9/22/02	6:18 AM	6:27 PM	9/22/02	6:12 AM	6:21 PM
9/23/02	6:19 AM	6:26 PM	9/23/02	6:12 AM	6:19 PM
9/24/02	6:20 AM	6:24 PM	9/24/02	6:13 AM	6:18 PM
9/25/02	6:20 AM	6:23 PM	9/25/02	6:14 AM	6:16 PM
9/26/02	6:21 AM	6:21 PM	9/26/02	6:15 AM	6:15 PM
9/27/02	6:22 AM	6:20 PM	9/27/02	6:16 AM	6:13 PM
9/28/02	6:23 AM	6:18 PM	9/28/02	6:16 AM	6:12 PM
9/29/02	6:23 AM	6:17 PM	9/29/02	6:17 AM	6:10 PM
9/30/02	6:24 AM	6:15 PM	9/30/02	6:18 AM	6:09 PM

ADD ONE HOUR FOR CENTRAL DAYLIGHT TIME

CONTACT INFORMATION

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