

# OKLAHOMA MONTHLY CLIMATE SUMMARY

## JUNE 2002

---

### TABLE OF CONTENTS

June 2002 Oklahoma Climate Summary.....	2
June 2001/2002 Comparison Graphs.....	4
June 2002 State Summary Maps.....	6
June 2002 Data Summary Tables.....	9
Climate Division Map.....	14
Explanation of Tables.....	14
June 2002 Mesonet Summary.....	16
June 2002 Extremes and Comparisons.....	17
August Climatological Normals.....	18
90 - Day National Weather Service Outlook.....	19
August Tornado Statistics.....	19
August Oklahoma City Climate Calendar.....	20
August Tulsa Climate Calendar.....	21
August Wind Roses - Sunrise/Sunset Tables.....	22
Contact Information .....	23



**Oklahoma Climatological Survey**

## MONTHLY SUMMARY FOR JUNE 2002

### **June 2002**

*Statewide average temperature = 77.3° F*

*Statewide average rainfall = 3.80 inches*

At times, Oklahoma's climatic periods can be remarkable in their lack of distinction. June 2002 was just such a period. And, while the month will be remembered for being neither cold nor warm, dry nor wet, the parts that make up its sum merit attention.

The statewide-averaged precipitation total of 3.80 inches ranks the month as the 56<sup>th</sup> wettest June since record-keeping began in 1892. Coincidentally, that precipitation total also ranks as the 56<sup>th</sup> driest June on record, evident by the scant 0.44-inch less than normal precipitation deficit. Accordingly, the 17.59-inch January-June statewide-averaged precipitation amount fell 1.39 inches short of normal, mirroring June's ranking as the 56<sup>th</sup> wettest and driest such period in the previous 111 years. June's statewide-averaged temperature of 77.3 degrees was 0.4 degrees above normal. As with the month's precipitation ranking, June ranked near the middle of the pack in average temperature, tied with six other months as the 44<sup>th</sup> warmest on record. That brought the year-to-date January-June statewide-averaged temperature to 55.4 degrees, 0.6 degrees less than normal, contributing to the 37<sup>th</sup> coolest January-June period on record.

### **June Normals**

*Statewide average temperature = 77.7° F*

*Statewide average rainfall = 4.24 inches*

The highest daily maximum temperature for the month was 103 degrees, reported at Guymon and Goodwell (both in Texas County) on the 11<sup>th</sup>, and Buffalo (Harper) and Goodwell on the 12<sup>th</sup>. The month started out warm in the northwestern portions of the state, with widespread triple-digit temperatures being reported by a majority of the stations. That remained the case for the duration of the month, allowing the panhandle climate division to finish with a mean temperature of 78.3 degrees, exceeding the established normal by 3.9 degrees, becoming the 12<sup>th</sup> warmest June on record for the area. The lowest daily minimum temperature for the month, 44 degrees, was reported on June 1<sup>st</sup> at the Wichita Mountain Wildlife Refuge (Comanche) and again at Okmulgee (Okmulgee) on the 5<sup>th</sup>.

The remarkably normal statewide-averaged precipitation total was actually not-so-normal for several portions of the state. The majority of Oklahoma received less-than-normal rainfall amounts for June, with the exception of the panhandle and north-central areas. Buoyed by several large rainfall amounts, the north central climate division finished the month at 130 percent of normal average rainfall with 5.11 inches, a 1.18-inch surplus. Ft. Supply (Woodward) had the greatest daily precipitation total during June for not only the north central climate division, but for the entire state as well, receiving 5.71 inches on the 13<sup>th</sup>. Blackwell, Braman (both in Kay County), and Ralston (Pawnee) had rainfall amounts on the 13<sup>th</sup> of 3.56, 3.48, and 3.30 inches, respectively. Cordell (Washita) reported 4.10 inches of precipitation on the 9<sup>th</sup>, and Lawton (Comanche) reported 4.14 inches on the 5<sup>th</sup>. The panhandle climate division finished the month at 98 percent of normal average rainfall, marking only the 2<sup>nd</sup> month in the last

**(Continued on page 3.)**

13 (the other being January 2002) in which they received near- or above-normal average rainfall. Since June 2001, the panhandle region has been in the grips of a devastating drought, receiving only 13.37 inches of precipitation, 56 percent of the normal June-June total.

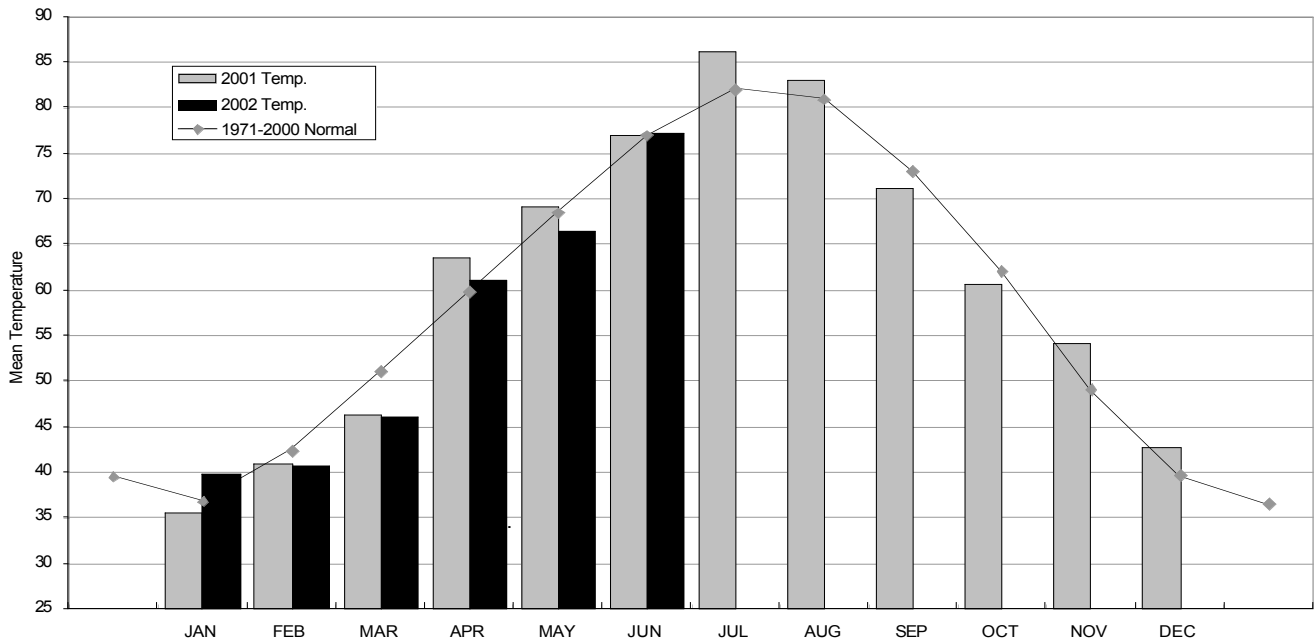
Severe weather reports were sparse for the month. No tornadoes were reported, falling short of the normal June total of 8.7. Despite the quiet month, however, there were various reports of the usual severe weather culprits: high winds, hail, and flooding. The first bout of turbulent weather occurred on the 4<sup>th</sup> associated with a squall line that formed along a frontal boundary. Flash flooding occurred in Blackwell and Lawton associated with heavy rainfall as the squall line traversed the state. Wind damage was reported in Pawhuska (Osage) and Felt (Cimarron), where 80 mph wind gusts were reported.

Another round of severe weather occurred on the 8<sup>th</sup>, with 84 mph wind gusts and 1.25 inch hail recorded in Ft. Cobb (Caddo). Several days later on the 12<sup>th</sup>, more thunderstorms associated with a frontal passage struck a large portion of the state. Extensive street flooding was reported in Ponca City (Kay), and 1.75 inch hail occurred in Blackwell, Ponca City, north of Camp Houston (Woods), southeast of Ft. Supply, and north of Gage (Ellis). Thirteen Oklahoma Mesonet sites reported wind gusts over 60 mph, and Alva (Woods) had a thunderstorm-associated gust of 73 mph. Wind damage was reported in the northern portions of the state, with the most common occurrence being tree or minor structural damage.

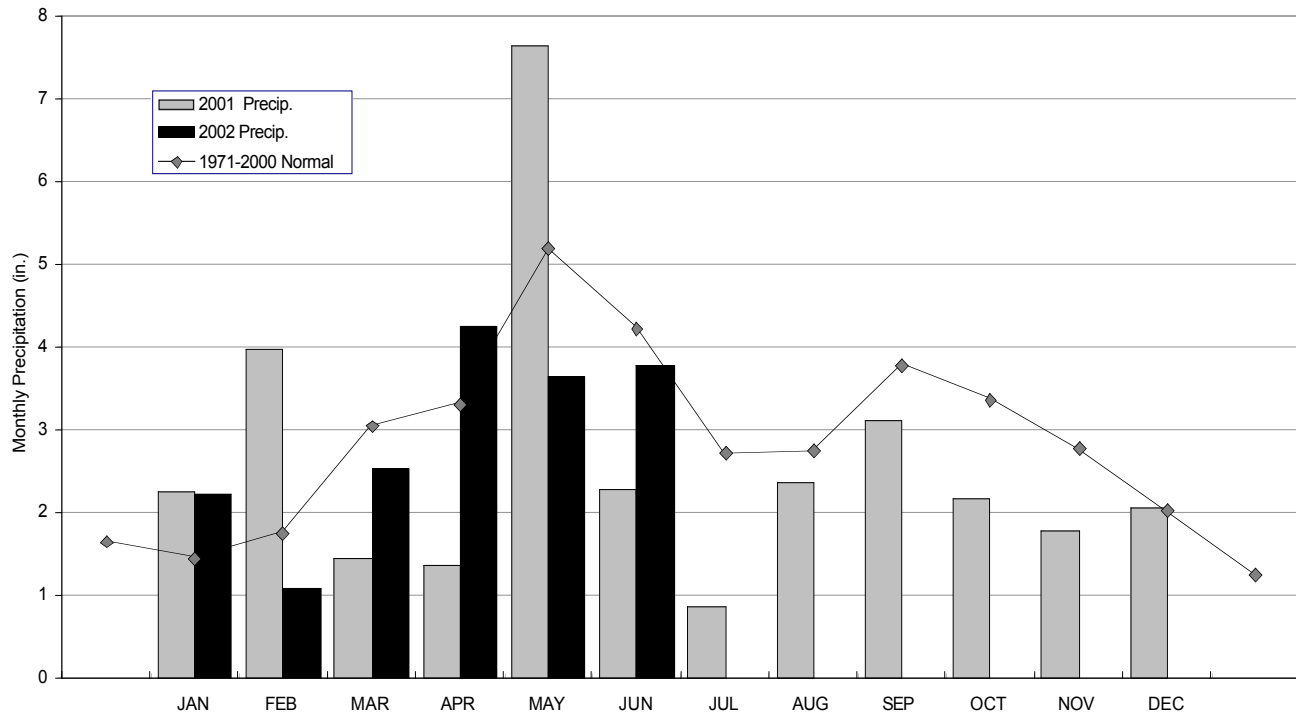
One more significant round of severe weather came on the 15<sup>th</sup> associated with another frontal passage. Damaging winds estimated at 70 to 80 mph were reported in Woods and Alfalfa counties, and a roof was blown off of a restaurant in Grandfield (Tillman). Hail up to 1.75 inches was reported at Forgan (Beaver).

Derek S. Arndt and Gary D. McManus

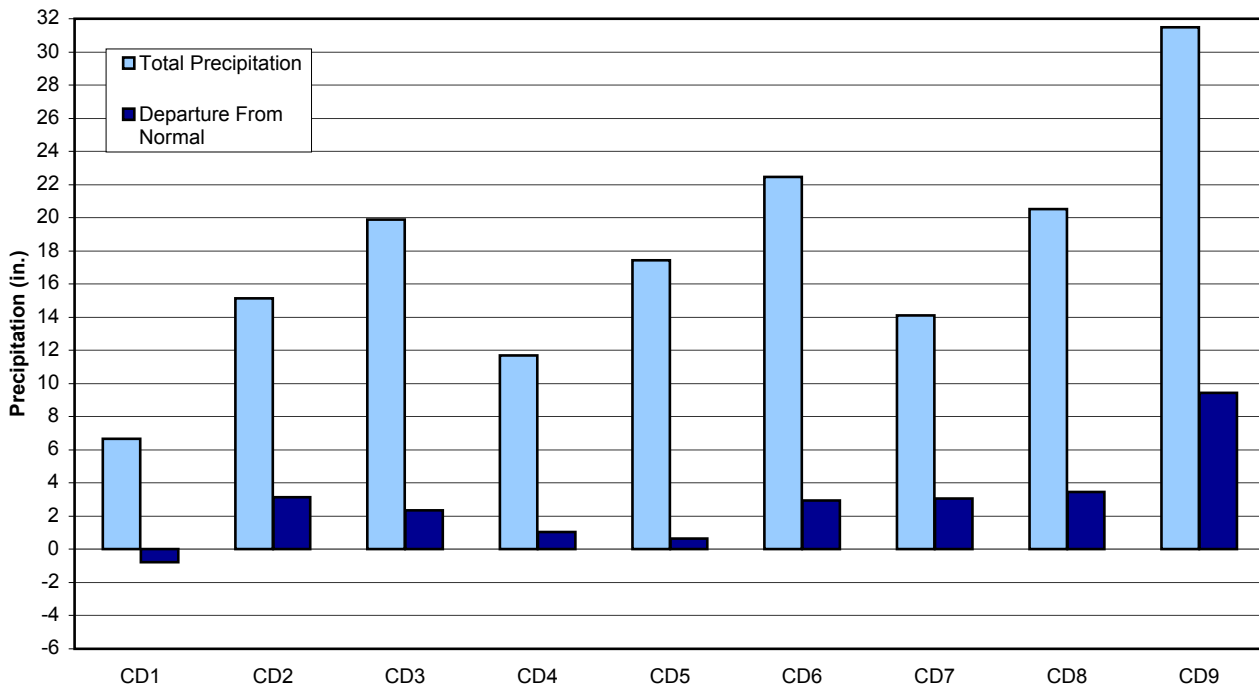
## 2001 AND 2002 STATEWIDE TEMPERATURES - MONTHLY AVERAGES



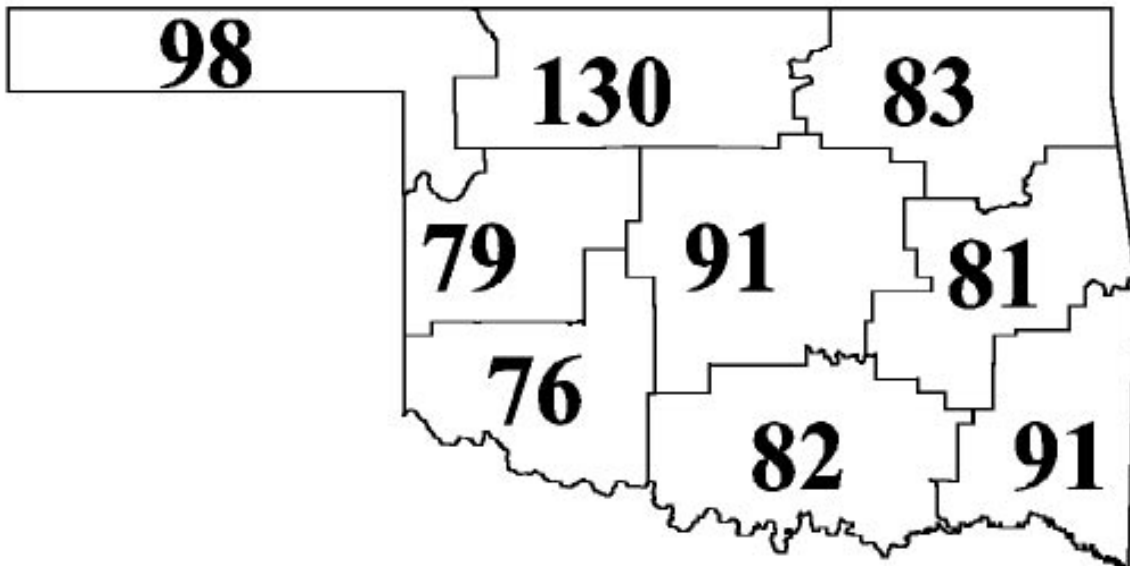
## 2001 AND 2002 STATEWIDE PRECIPITATION - MONTHLY TOTALS



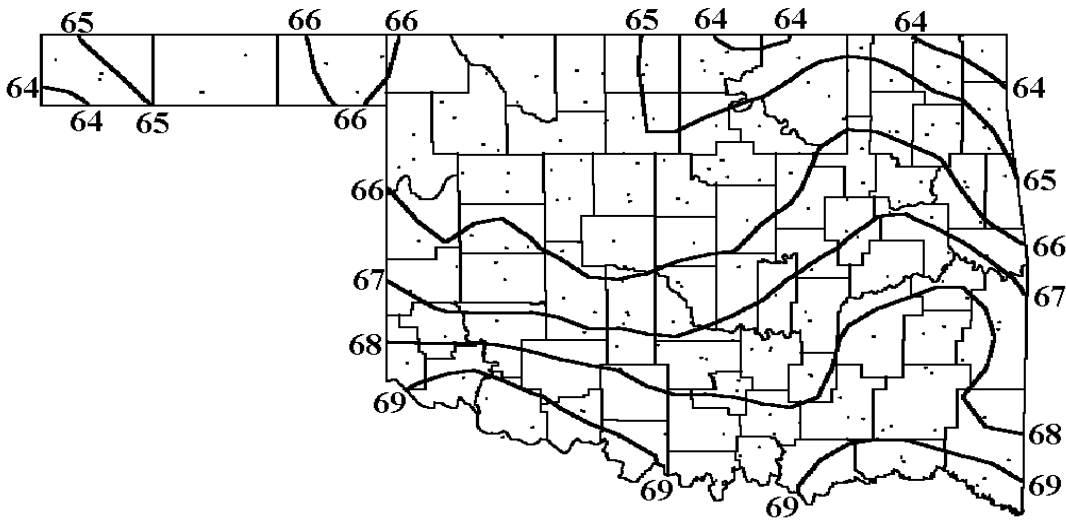
**CLIMATE DIVISION AVERAGED PRECIPITATION - JANUARY THROUGH JUNE 2002**



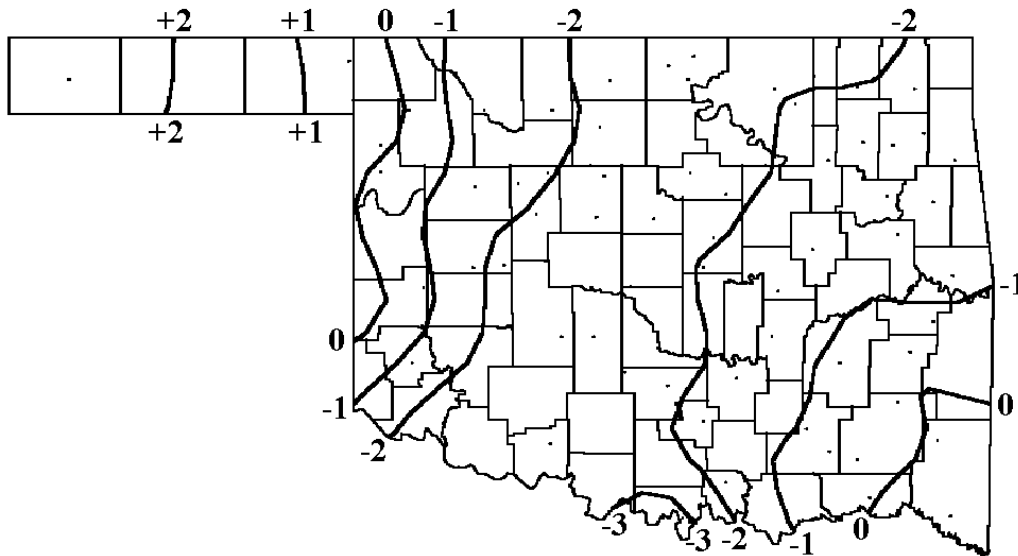
**CLIMATE DIVISION PERCENT OF NORMAL PRECIPITATION - JUNE 2002**



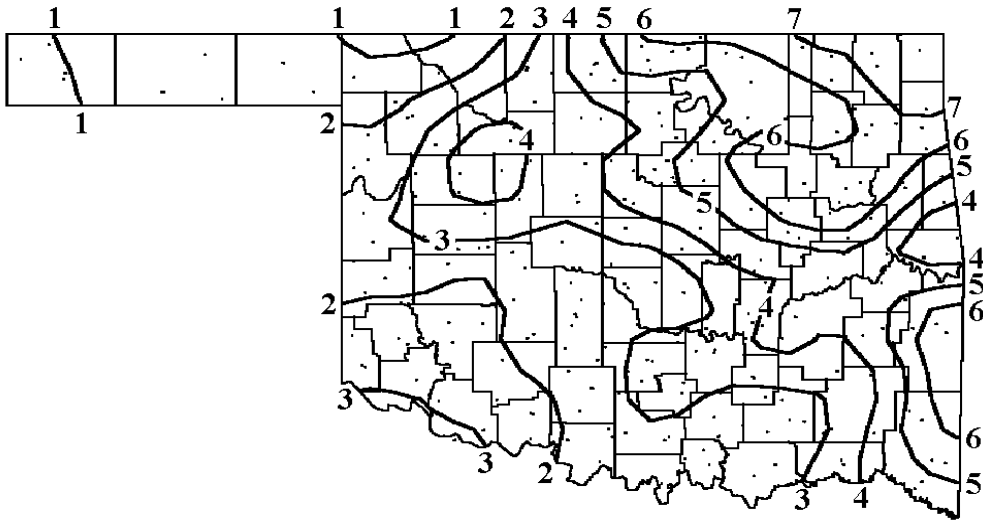
JUNE 2002 AVERAGE MONTHLY TEMPERATURE (°F)



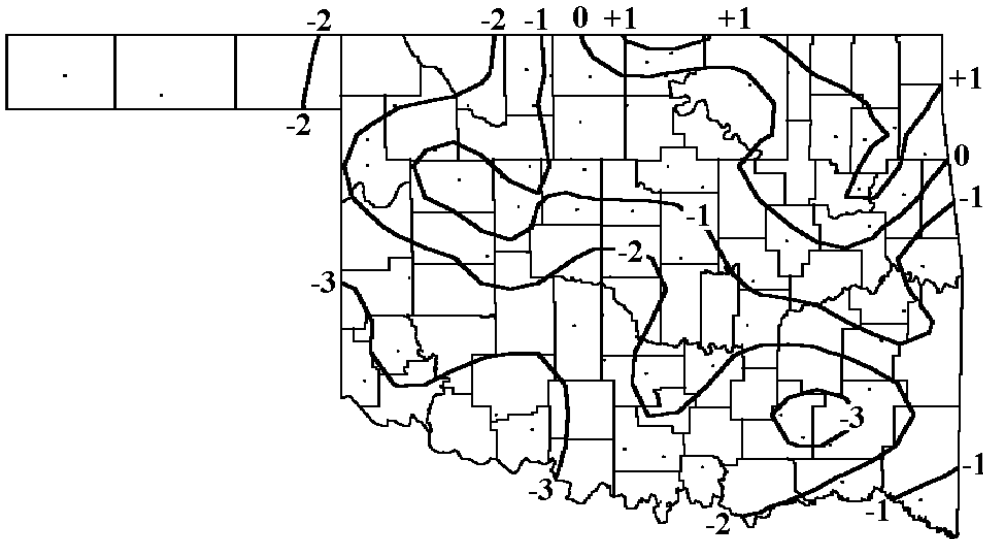
JUNE 2002 DEPARTURE FROM NORMAL TEMPERATURE (°F)



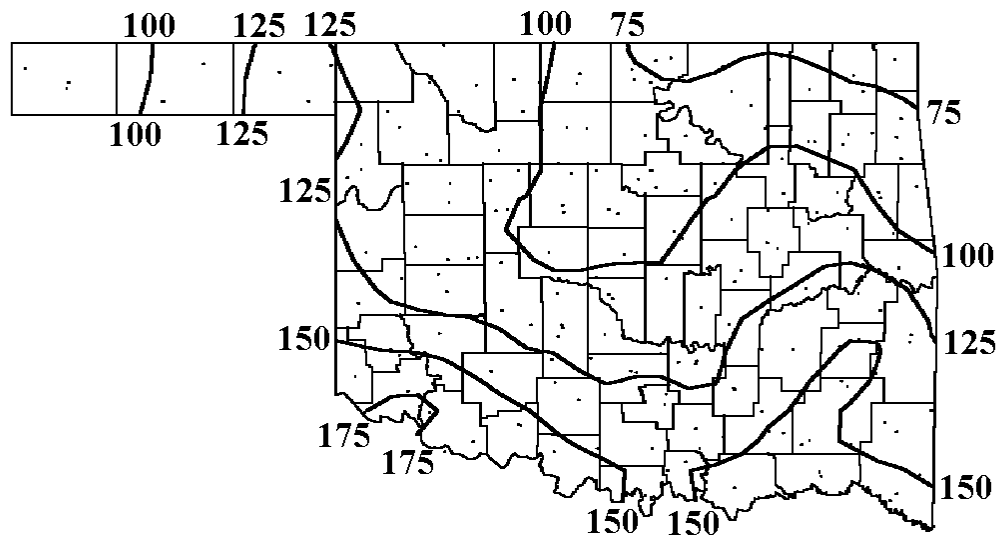
## JUNE 2002 PRECIPITATION (INCHES)



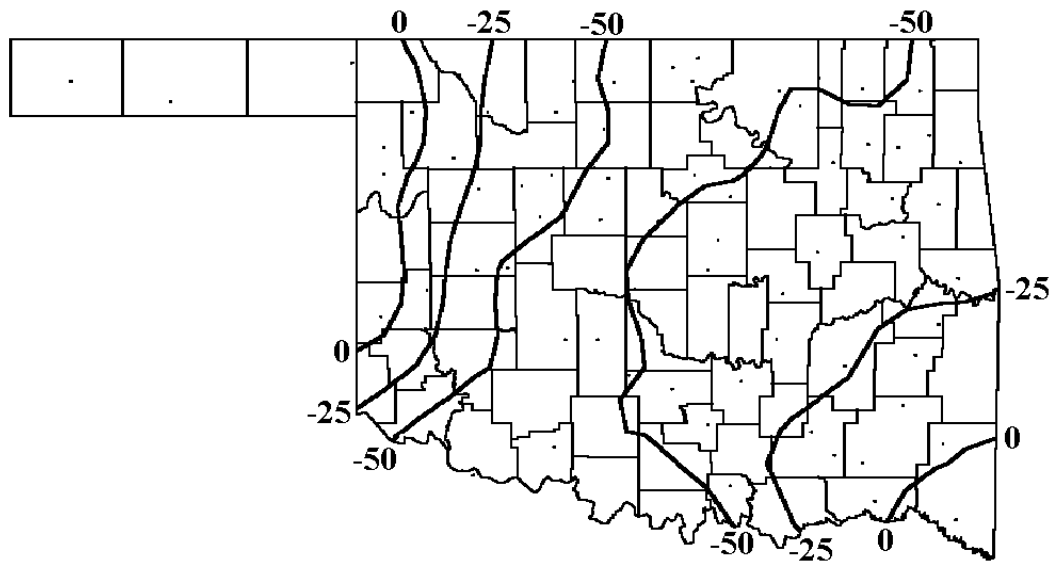
## JUNE 2002 DEPARTURE FROM NORMAL PRECIPITATION (INCHES)



## JUNE 2002 ACCUMULATED COOLING DEGREE DAYS (°F)



## JUNE 2002 DEPARTURE FROM NORMAL COOLING DEGREE DAYS (°F)





## JUNE 2002 SUMMARY FOR PANHANDLE CLIMATE DIVISION (CD1)

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		
ARNETT	332	1	75.8	29	2.2	96	13	50	7	6	-8	318	47	4.520	30	1.02	1.67	27
BEAVER	593	1	76.4	28	*****	98	24	51	6	5	*****	326	*****	2.530	30	-0.71	1.65	16
BOISE CITY	908	1	76.7	30	4.1	100	19	51	5	5	-12	357	113	1.311	30	-1.73	0.89	4
FARGO	3070	1	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.941	30	*****	1.35	16
GAGE	3407	1	78.1	30	2.8	99	12	48	6	3	-8	396	79	4.684	30	1.79	3.20	13
GATE	3489	1	79.1	30	3.1	100	13	53	6	4	-12	425	82	3.490	30	0.56	1.28	16
GOODWELL	3628	1	79.8	30	5.3	103	12	55	6	1	-11	444	148	1.370	30	-1.09	0.65	5
GUYMON	3835	1	79.8	28	*****	103	11	51	4	2	*****	418	*****	1.110	28	*****	0.40	5
HOOKER	4298	1	79.9	30	4.7	102	2	54	6	1	-9	447	133	1.583	30	-0.91	0.76	4
KENTON	4766	1	79.2	29	6.0	102	18	53	16	0	-11	411	154	2.701	29	*****	1.08	5
LAVERNE	5045	1	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.540	30	*****	1.57	13
RANGE	7412	1	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.530	30	*****	0.89	6
REGNIER	7534	1	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.311	30	*****	0.60	14
TURPIN	9017	1	79.3	24	*****	100	12	56	6	2	*****	344	*****	1.780	24	*****	1.02	17

## JUNE 2002 SUMMARY FOR NORTH CENTRAL CLIMATE DIVISION (CD2)

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		
ALVA	193	2	78.3	26	*****	100	13	53	6	4	*****	350	*****	4.530	30	1.26	2.35	13
BILLINGS	755	2	76.8	29	-0.1	94	13	50	6	5	-1	349	-13	4.252	30	-0.10	1.40	16
BLACKWELL 2E	818	2	77.6	30	1.2	94	28	56	7	2	-4	379	34	8.013	30	3.62	3.56	13
BRAMAN	1075	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	10.551	30	*****	3.60	5
CEDARDALE	1620	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.810	30	*****	1.38	13
CHEROKEE	1724	2	79.7	23	*****	98	28	53	6	4	*****	343	*****	6.450	30	2.46	1.95	14
ENID	2912	2	79.4	30	2.3	98	27	55	6	2	-1	435	71	4.482	30	0.09	1.77	5
FT SUPPLY	3304	2	78.0	26	*****	99	13	46	6	5	*****	342	*****	7.210	26	*****	5.71	13
FREEDOM	3358	2	77.8	28	*****	98	12	50	5	3	*****	361	*****	3.060	29	*****	1.29	13
GREAT SALT P	3740	2	78.9	28	*****	97	29	54	5	0	*****	388	*****	3.610	30	-0.20	1.95	4
HARDY	3909	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.570	30	*****	2.17	13
HELENA	4019	2	77.6	30	0.9	96	29	53	6	5	-1	382	27	5.080	30	1.22	2.02	14
JEFFERSON	4573	2	77.1	30	-0.4	96	28	50	6	6	3	368	-10	4.411	30	0.10	2.15	5
LAHOMA	4950	2	77.7	30	*****	99	13	53	6	5	*****	385	*****	5.600	30	*****	1.95	5
LAMONT	5013	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.110	30	*****	1.69	5
MEDFORD	5768	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.102	30	*****	1.59	5
MORRISON	6065	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.470	30	*****	1.61	14
MUTUAL	6139	2	77.3	30	2.1	98	13	50	6	7	-4	376	60	2.030	30	-1.30	1.04	16
NEWKIRK	6278	2	75.8	30	0.4	92	28	52	6	5	-2	330	13	6.600	30	1.55	2.18	13
ORIENTA	6751	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.471	30	*****	2.82	13
PONCA CITY	7201	2	77.3	30	-0.2	93	11	53	6	2	-1	372	-4	4.055	30	-0.44	2.58	13
RED ROCK	7505	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.170	30	*****	2.08	4
WAYNOKA	9404	2	78.8	30	1.2	99	12	52	5	5	-1	420	36	4.230	30	1.01	1.83	12
WOODWARD	9760	2	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.770	30	*****	1.78	13

## JUNE 2002 SUMMARY FOR NORTHEAST CLIMATE DIVISION (CD3)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV			MIN TEMP	DAY	HEAT		DEV		COOL		TOT PPT	NUM OBS	DEV		DAY
					FROM NORM	MAX TEMP	DAY			DEG DAY	FROM NORM	DEG DAY	FROM NORM	DEG DAY	FROM NORM			MAX 24-HR		
BARNSDALL	535	3	76.9	30	0.8	92	27	54	6	0	-2	356	23	3.420	30	-1.63	2.12	13		
BARTLESVILLE	548	3	77.4	30	0.2	94	28	55	6	0	-1	371	6	4.151	30	-0.35	1.83	13		
BIXBY	782	3	77.6	29	1.5	93	28	58	14	0	-2	364	28	4.291	29	*****	2.50	12		
BURBANK	1256	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.951	30	*****	2.74	12		
CHELSEA	1717	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.180	30	*****	1.98	13		
CLAREMORE	1828	3	76.3	30	0.7	93	29	55	15	0	-3	340	19	4.852	30	-0.01	2.61	13		
FORAKER	3250	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.170	30	*****	1.78	5		
HOLLOW	4258	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.410	30	*****	0.97	12		
HOMINY	4289	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.930	30	*****	2.00	13		
KANSAS	4672	3	75.4	30	0.7	90	29	56	6	0	-3	312	19	4.170	30	-1.05	1.40	12		
LENAPAH	5118	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.400	30	*****	1.11	13		
MANNFORD	5522	3	76.2	29	-0.2	91	28	56	7	0	-3	326	-18	5.740	29	*****	3.18	13		
MARAMEC	5540	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.470	30	*****	1.45	13		
MIAMI	5855	3	75.6	25	*****	91	25	57	5	1	*****	265	*****	2.600	25	*****	1.00	12		
NOWATA	6485	3	76.2	28	*****	91	28	46	5	1	*****	315	*****	3.460	30	-1.25	1.45	13		
PAWHUSKA	6935	3	76.3	30	0.0	92	27	53	6	0	-3	340	-2	5.850	30	0.65	2.94	13		
PAWNEE	6940	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.710	30	*****	0.98	13		
PRYOR	7309	3	76.3	30	0.9	92	29	55	15	0	-3	339	25	3.471	30	-1.23	1.92	13		
RALSTON	7390	3	75.4	30	-0.7	92	28	50	6	0	-4	311	-25	5.070	30	0.76	3.30	13		
SPAVINAW	8380	3	77.2	30	0.4	90	29	57	15	0	-2	367	11	2.801	30	-1.92	1.30	13		
TULSA	8992	3	78.3	30	0.3	93	28	57	6	0	-1	399	14	2.901	30	-1.82	1.70	12		
UPPER SPAV	9101	3	74.8	30	*****	92	3	52	15	0	*****	296	*****	4.510	30	*****	1.80	13		
VINITA	9203	3	75.8	21	*****	90	28	57	14	0	*****	227	*****	3.220	21	*****	1.07	13		
WAGONER	9247	3	77.9	30	1.2	92	28	59	16	0	-2	388	36	2.620	30	-2.68	1.15	13		
WANN	9298	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.440	30	*****	1.64	13		

## JUNE 2002 SUMMARY FOR WEST CENTRAL CLIMATE DIVISION (CD4)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV			MIN TEMP	DAY	HEAT		DEV		COOL		TOT PPT	NUM OBS	DEV		DAY
					FROM NORM	MAX TEMP	DAY			DEG DAY	FROM NORM	DEG DAY	FROM NORM	DEG DAY	FROM NORM			MAX 24-HR		
CANTON DAM	1445	4	77.9	30	2.1	96	29	53	6	4	-3	392	60	2.020	30	-1.64	0.67	5		
CLINTON	1909	4	77.7	30	-0.2	95	29	54	6	3	-2	383	-9	3.991	30	-0.07	1.32	5		
CORDELL	2125	4	77.8	30	*****	95	30	57	7	1	*****	386	*****	6.341	30	*****	4.10	9		
ELK CITY	2849	4	76.8	30	1.1	95	29	56	6	0	-5	354	29	2.890	30	-1.13	1.57	14		
ERICK	2944	4	78.1	30	2.4	97	29	57	7	0	-4	394	68	2.501	30	-1.09	1.14	5		
GEARY	3497	4	76.3	22	*****	93	12	56	5	2	*****	249	*****	0.300	23	*****	0.30	30		
MORAVIA	6035	4	77.2	29	*****	95	30	54	7	3	*****	357	*****	1.930	29	*****	0.79	5		
LEEDEY	5090	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.550	30	*****	1.00	16		
MORAVIA	6035	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.130	30	*****	1.66	5		
OKEENE	6629	4	78.4	30	0.1	97	12	53	7	0	-2	401	1	3.320	30	-0.73	1.62	13		
RETROP	7565	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.570	30	*****	0.85	16		
REYDON	7579	4	76.5	28	*****	95	13	53	7	4	*****	327	*****	2.350	28	*****	1.10	14		
SAYRE	7952	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.810	30	*****	1.28	14		
SWEETWATER	8652	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.070	30	*****	1.00	14		
TALOGA	8708	4	77.0	30	0.6	97	1	53	7	4	-1	364	17	1.871	30	-1.78	0.70	5		
THOMAS	8815	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.940	30	*****	2.90	13		
WATONGA	9364	4	77.5	30	0.8	94	29	53	6	4	-1	378	23	1.781	30	-2.00	0.72	5		
WEATHERFORD	9422	4	77.3	30	-1.2	94	28	57	6	1	-2	369	-37	3.180	30	-0.91	1.45	16		

## JUNE 2002 SUMMARY FOR CENTRAL CLIMATE 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	DAY											
AMBER	200	5	****	0	****	****	0	****	0	*****	*****	*****	*****	2.730	30	****	0.83	9	
BLANCHARD	830	5	76.6	29	-0.7	91	26	60	13	0	-2	338	-32	4.930	30	1.03	1.95	9	
BRISTOW	1144	5	77.1	30	1.0	91	29	55	15	0	-3	363	29	3.690	30	-0.76	1.32	5	
CHANDLER	1684	5	77.0	26	****	93	13	58	7	0	*****	312	*****	3.761	26	****	1.43	16	
CHICKASHA EXP	1750	5	77.5	30	-1.8	93	28	59	6	0	0	376	-53	3.840	30	-0.27	1.43	4	
COX CITY	2196	5	****	0	****	****	0	****	0	*****	*****	*****	*****	3.050	30	****	1.93	5	
CUSHING	2318	5	77.2	30	0.6	91	29	57	6	0	-3	367	16	5.990	30	1.62	1.82	5	
EDMOND	2788	5	****	0	****	****	0	****	0	*****	*****	*****	*****	3.890	30	****	1.15	13	
GUTHRIE	3821	5	76.6	29	0.3	91	29	54	6	2	-3	338	-5	4.390	30	-0.07	1.30	13	
HENNESSEY	4055	5	77.5	30	1.1	97	13	52	6	5	1	379	32	5.100	30	1.01	2.45	13	
INGALLS	4489	5	****	0	****	****	0	****	0	*****	*****	*****	*****	4.022	30	****	1.45	13	
KINGFISHER	4861	5	77.5	30	0.8	94	29	55	7	1	-1	376	23	4.880	30	0.56	2.04	5	
KONAWA	4915	5	****	0	****	****	0	****	0	*****	*****	*****	*****	4.080	30	****	1.56	4	
MARSHALL	5589	5	****	0	****	****	0	****	0	*****	*****	*****	*****	4.190	30	****	1.17	5	
MEEKER	5779	5	74.9	27	****	90	29	57	15	0	*****	269	*****	4.650	27	****	1.39	16	
MULHALL	6110	5	****	0	****	****	0	****	0	*****	*****	*****	*****	2.510	30	****	1.13	16	
NORMAN NWS	6386	5	76.5	30	****	90	28	60	17	0	*****	344	*****	4.221	30	****	1.15	15	
OKEMAH	6638	5	76.7	30	-1.5	91	28	59	15	0	0	351	-44	5.500	30	0.66	2.06	14	
OKLAHOMA CTY	6661	5	76.3	30	-0.5	91	29	59	15	0	-1	338	-22	4.562	30	-0.07	1.84	12	
OKLAHOMA CTY F.	6659	5	****	0	****	****	0	****	0	*****	*****	*****	*****	4.881	30	****	2.01	12	
OKEMAH	6638	5	76.8	30	-1.4	91	28	59	15	0	0	354	-41	5.500	30	0.66	2.06	14	
PERKINS	7003	5	****	0	****	****	0	****	0	*****	*****	*****	*****	4.310	30	****	1.24	16	
PIEDMONT	7068	5	****	0	****	****	0	****	0	*****	*****	*****	*****	2.500	30	****	0.94	5	
PRAGUE	7264	5	****	0	****	****	0	****	0	*****	*****	*****	*****	3.360	30	****	0.91	14	
PURCELL	7327	5	76.3	27	****	91	12	60	15	0	*****	305	*****	3.190	27	****	1.61	4	
SEMINOLE	8042	5	77.1	30	-0.5	92	29	58	17	0	-1	363	-17	4.510	30	-0.24	1.82	5	
SHAWNEE	8110	5	****	0	****	****	0	****	0	*****	*****	*****	*****	4.190	30	****	1.43	14	
STELLA	8479	5	****	0	****	****	0	****	0	*****	*****	*****	*****	4.490	30	****	1.74	10	
STILLWATER	8501	5	77.3	30	0.3	93	28	55	6	0	-2	369	8	4.310	30	-0.01	1.81	16	
TECUMSEH	8751	5	****	0	****	****	0	****	0	*****	*****	*****	*****	1.250	30	****	1.00	5	
UNION CITY	9086	5	****	0	****	****	0	****	0	*****	*****	*****	*****	2.731	30	****	0.79	5	
WANETTE	9291	5	76.5	25	****	91	13	56	15	0	*****	288	*****	5.490	25	****	2.00	9	
WEWOKA	9575	5	****	0	****	****	0	****	0	*****	*****	*****	*****	3.620	30	****	1.05	13	

## JUNE 2002 SUMMARY FOR EAST CENTRAL CLIMATE 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	DAY											
ASHLAND	364	6	****	0	****	****	0	****	0	*****	*****	*****	*****	5.282	30	****	3.00	5	
BEGGS	631	6	****	0	****	****	0	****	0	*****	*****	*****	*****	3.320	30	****	1.72	13	
CALVIN	1391	6	****	0	****	****	0	****	0	*****	*****	*****	*****	4.500	30	****	1.45	5	
CHECOTAH	1711	6	78.2	30	****	92	28	60	15	0	*****	397	*****	3.040	30	****	1.36	5	
CLAYTON	1858	6	****	0	****	****	0	****	0	*****	*****	*****	*****	3.070	30	****	1.13	5	
DEWAR	2485	6	****	0	****	****	0	****	0	*****	*****	*****	*****	3.201	30	****	1.20	13	
HOLDENVILLE	4235	6	78.5	29	2.6	95	28	60	30	0	-1	391	63	4.450	29	****	1.86	4	
LAKE EUFAULA	4975	6	75.6	30	0.2	89	22	59	15	0	-3	319	6	5.340	30	0.54	3.10	5	
LYONS	5437	6	****	0	****	****	0	****	0	*****	*****	*****	*****	4.500	30	****	2.57	5	
MCALESTER	5664	6	77.0	30	-0.6	91	23	57	15	0	-1	361	-17	6.533	30	2.00	2.34	5	
MCCURTAIN	5693	6	77.3	30	-0.3	92	28	56	15	0	-1	368	-6	3.125	30	-2.02	2.00	5	
MUSKOGEE	6130	6	77.4	30	0.9	91	28	55	14	0	-2	373	27	3.000	30	-2.09	1.21	12	
OKMULGEE	6670	6	76.3	9	****	92	12	44	5	3	*****	105	*****	3.390	19	****	1.69	12	
OKTAHA	6678	6	****	0	****	****	0	****	0	*****	*****	*****	*****	3.920	30	****	1.43	5	
SALLISAW	7862	6	77.2	30	1.0	92	29	56	15	0	-2	365	29	3.300	30	-1.27	2.05	5	
SHORT	8170	6	****	0	****	****	0	****	0	*****	*****	*****	*****	2.070	30	****	1.20	5	
STILWELL	8506	6	73.0	30	-0.6	89	22	52	16	0	-8	241	-25	4.400	30	-0.76	1.90	26	
TAHLEQUAH	8677	6	74.5	30	-1.1	88	28	53	15	0	-2	286	-33	2.893	30	-2.30	1.28	13	
WEBBERS FALL	9445	6	77.2	12	****	92	13	61	6	0	*****	147	*****	4.230	16	****	2.44	5	
WETUMKA	9571	6	****	0	****	****	0	****	0	*****	*****	*****	*****	4.951	30	****	1.37	14	

## JUNE 2002 SUMMARY FOR SOUTHWEST CLIMATE DIVISION (CD7)

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	
ALTUS	179	7	79.8	30	0.6	98	29	58	6	0	-1	444	17	2.130	30	-2.20	1.05	16
ALTUS DAM	184	7	79.2	21	****	98	27	59	7	0	*****	298	*****	2.480	30	-1.67	1.06	14
ANADARKO	224	7	75.9	30	-0.4	91	29	56	7	0	-4	328	-12	3.070	30	-0.93	1.10	5
APACHE	260	7	****	0	****	****	0	****	0	*****	*****	*****	*****	3.060	30	*****	1.40	16
CARNEGIE	1504	7	****	0	****	****	0	****	0	*****	*****	*****	*****	4.570	30	0.28	2.27	9
CHATTANOOGA	1706	7	77.8	30	-1.5	97	13	55	24	0	-1	386	-44	5.020	30	0.99	2.87	5
DUNCAN 11 W	2668	7	****	0	****	****	0	****	0	*****	*****	*****	*****	3.040	30	*****	1.63	5
FREDERICK	3353	7	79.0	25	****	96	26	60	8	0	*****	351	*****	1.570	25	*****	1.08	5
HOBART	4204	7	79.3	30	0.7	99	12	57	6	0	-2	429	19	1.945	30	-1.35	0.60	15
HOLLIS	4249	7	79.5	30	0.7	99	12	59	17	0	-1	436	20	3.850	30	-0.37	1.38	14
LAWTON	5063	7	78.3	28	****	93	27	60	6	0	*****	372	*****	5.470	28	*****	4.14	5
LOOKEBA	5329	7	****	0	****	****	0	****	0	*****	*****	*****	*****	4.290	30	*****	1.92	16
MANGUM	5509	7	77.8	30	0.0	96	30	59	7	0	-1	385	-1	1.404	30	-2.80	0.92	5
RANDLETT	7403	7	****	0	****	****	0	****	0	*****	*****	*****	*****	4.390	30	*****	2.50	4
ROOSEVELT	7727	7	****	0	****	****	0	****	0	*****	*****	*****	*****	2.280	30	*****	0.85	14
SEDAN	8016	7	****	0	****	****	0	****	0	*****	*****	*****	*****	2.250	30	*****	0.90	14
SNYDER	8299	7	****	0	****	****	0	****	0	*****	*****	*****	*****	1.620	30	*****	0.60	16
VINSON	9212	7	****	0	****	****	0	****	0	*****	*****	*****	*****	4.140	30	*****	1.65	14
WALTERS	9278	7	77.8	30	-0.7	94	30	61	6	0	-1	384	-21	3.400	30	-0.86	2.00	5
WICHITA MT	9629	7	76.7	28	****	94	29	48	7	0	*****	328	*****	1.030	29	*****	0.90	5

## JUNE 2002 SUMMARY FOR SOUTH CENTRAL CLIMATE DIVISION (CD8)

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	
ADA	17	8	76.8	30	0.1	90	28	59	15	0	-1	353	1	4.130	30	-0.40	1.86	5
ALLEN	147	8	****	0	****	****	0	****	0	*****	*****	*****	*****	4.160	30	*****	2.05	5
ARDMORE	292	8	78.8	30	-0.1	93	12	63	1	0	0	414	-2	4.630	30	0.41	2.15	4
ATOKA DAM	394	8	77.5	24	****	91	29	56	15	0	*****	301	*****	4.970	30	0.32	1.75	4
BOKCHITO	917	8	****	0	****	****	0	****	0	*****	*****	*****	*****	2.750	30	*****	1.65	14
CANEY	1437	8	****	0	****	****	0	****	0	*****	*****	*****	*****	4.220	30	*****	1.52	14
CENTRAHOMA	1648	8	76.7	30	****	90	25	56	15	0	*****	350	*****	5.100	30	*****	2.15	5
CHICKASAW	1745	8	77.0	29	0.1	90	29	57	15	0	-1	347	-12	4.490	29	*****	3.10	5
COLEMAN	2011	8	76.8	30	****	90	23	57	14	0	*****	355	*****	4.600	30	*****	2.25	5
COMANCHE	2054	8	****	0	****	****	0	****	0	*****	*****	*****	*****	2.190	30	*****	1.40	5
DAISY	2354	8	****	0	****	****	0	****	0	*****	*****	*****	*****	5.550	30	*****	1.37	26
DUNCAN	2660	8	77.0	24	****	92	27	62	17	0	*****	288	*****	2.550	26	*****	1.33	5
ELMORE CITY	2872	8	****	0	****	****	0	****	0	*****	*****	*****	*****	2.770	30	*****	1.48	5
GRADY	3688	8	****	0	****	****	0	****	0	*****	*****	*****	*****	0.990	30	*****	0.53	16
HEALDTON	4001	8	77.3	30	-0.7	92	29	61	17	0	-1	368	-20	4.450	30	0.04	2.60	5
HENNEPIN	4052	8	****	0	****	****	0	****	0	*****	*****	*****	*****	2.080	30	*****	1.01	5
KETCHUM RAN	4780	8	****	0	****	****	0	****	0	*****	*****	*****	*****	2.060	30	*****	1.00	5
KINGSTON	4865	8	****	0	****	****	0	****	0	*****	*****	*****	*****	3.800	30	*****	1.90	5
LEHIGH	5108	8	****	0	****	****	0	****	0	*****	*****	*****	*****	2.701	30	*****	0.95	13
LINDSAY	5216	8	77.1	29	0.1	95	28	59	16	0	-1	351	-12	2.870	29	*****	1.22	4
LOCO	5247	8	****	0	****	****	0	****	0	*****	*****	*****	*****	3.090	30	*****	1.60	5
MADILL	5468	8	79.3	30	1.4	95	13	62	17	0	0	430	43	2.720	30	-2.33	1.80	5
MARIETTA 5 SW	5563	8	73.3	30	-4.8	88	27	57	18	0	0	248	-144	3.550	30	-0.68	1.67	5
MARLOW	5581	8	78.1	30	****	94	29	60	17	0	*****	393	*****	3.750	30	*****	1.81	5
MC GEE CREEK	5713	8	78.1	30	0.9	93	24	57	15	0	0	393	26	4.300	30	-0.75	1.53	5
PAULS VALLEY	6926	8	76.8	30	-0.3	93	29	58	15	0	-1	355	-9	2.471	30	-2.09	0.87	5
PONTOTOC	7214	8	****	0	****	****	0	****	0	*****	*****	*****	*****	6.490	30	*****	2.69	4
TISHOMINGO	8884	8	****	0	****	****	0	****	0	*****	*****	*****	*****	4.670	30	*****	2.54	4
TUSSY	9032	8	****	0	****	****	0	****	0	*****	*****	*****	*****	3.141	30	*****	1.50	5
WAURIKA	9395	8	78.3	30	-2.0	93	28	62	17	0	0	401	-57	3.830	30	0.00	1.55	4

## JUNE 2002 SUMMARY FOR SOUTHEAST CLIMATE DIVISION (CD9)

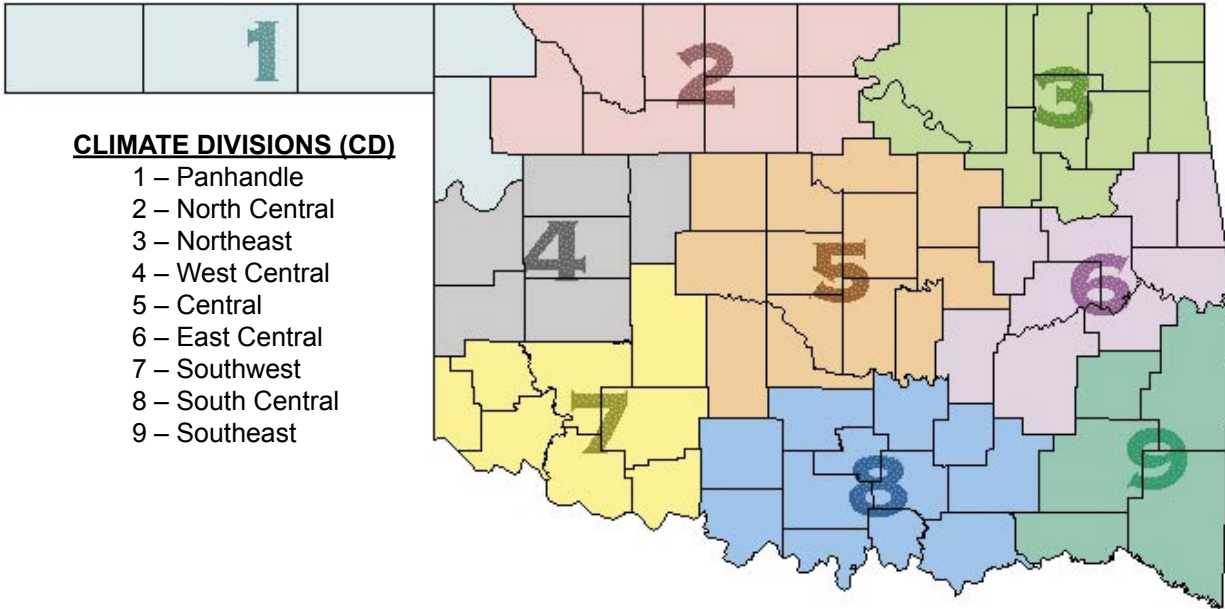
NAME	ID	CD	MEAN				DEV				HEAT				COOL				DEV																
			TEMP	NUM	FROM	MAX	TEMP	NUM	FROM	MAX	TEMP	NUM	FROM	MAX	TEMP	NUM	FROM	MAX	TEMP	NUM	FROM	MAX	TEMP	NUM	FROM	MAX	TEMP	NUM	FROM	MAX	TEMP	NUM	FROM	MAX	TEMP
ANTLERS	256	9	76.4	30	-0.9	90	24	55	15	0	0	343	-25	4.027	30	-0.87	2.23	5																	
BATTIEST	567	9	73.5	27	****	88	23	51	15	0	*****	*****	*****	2.281	28	*****	1.04	5																	
BENGAL	670	9	****	0	****	****	0	****	0	*****	*****	*****	*****	5.020	30	*****	3.11	5																	
BROKEN BOW	1162	9	****	0	****	****	0	****	0	*****	*****	*****	*****	4.261	30	*****	2.00	10																	
CARTER TWR	1544	9	****	0	****	****	0	****	0	*****	*****	*****	*****	0.390	21	*****	0.34	5																	
FANSHAWE	3065	9	****	0	****	****	0	****	0	*****	*****	*****	*****	7.550	30	*****	3.58	5																	
HUGO	4384	9	77.2	30	0.1	91	23	57	17	0	0	366	2	2.930	30	-1.89	1.73	5																	
IDABEL	4451	9	79.7	24	****	95	28	61	19	0	*****	353	*****	1.500	30	-2.87	0.86	10																	
PAGE	6842	9	74.4	18	****	89	23	52	15	0	*****	169	*****	3.330	18	*****	2.56	5																	
SMITHVILLE	8285	9	74.5	23	****	92	22	51	15	0	*****	219	*****	0.006	25	*****	0.00	27																	
SPIRO	8416	9	****	0	****	****	0	****	0	*****	*****	*****	*****	3.520	30	*****	2.12	5																	
TUSKAHOMA	9023	9	76.9	30	-0.1	91	23	53	15	0	-1	357	-1	6.050	30	0.98	1.53	27																	
VALLIANT	9118	9	****	0	****	****	0	****	0	*****	*****	*****	*****	3.229	30	*****	2.00	5																	
WILBURTON	9634	9	76.0	30	-0.4	90	28	53	16	0	-1	331	-11	5.241	30	0.09	2.66	4																	
WISTER	9724	9	77.7	20	****	91	30	61	1	0	*****	254	*****	3.570	21	*****	1.90	6																	

## JUNE 2002 CLIMATE DIVISION SUMMARY

NAME	CD	MEAN				DEV				HEAT				COOL				DEV													
		TEMP	NUM	FROM	MAX	TEMP	NUM	FROM	MAX	TEMP	NUM	FROM	MAX	TEMP	NUM	FROM	MAX	TEMP	NUM	FROM	MAX	TEMP	NUM	FROM	MAX	TEMP	NUM	FROM	MAX	TEMP	NUM
PANHANDLE	1	78.3	7	3.9	103	11	48	6	3	-11	399	105	2.80	1	-0.6	3.20	0	13													
NORTH CENTRAL	2	77.5	10	0.9	100	13	46	6	4	-2	379	25	5.11	2	1.18	5.70	1	13													
NORTHEAST	3	76.6	13	0.5	94	28	46	5	0	-3	347	11	3.90	2	-0.82	3.30	0	13													
WEST CENTRAL	4	77.6	10	0.8	97	1	53	6	2	-3	378	21	3.06	1	-0.80	4.10	0	9													
CENTRAL	5	77.0	13	0.0	97	13	52	6	1	-2	358	-2	4.04	2	-0.42	2.40	5	13													
EAST CENTRAL	6	76.5	9	0.4	95	28	44	5	0	-2	344	11	3.91	1	-0.93	3.10	0	5													
SOUTHWEST	7	78.3	7	0.0	99	12	48	7	0	-2	399	0	3.11	1	-0.96	4.10	4	5													
SOUTH CENTRAL	8	77.3	13	-0.5	95	13	56	15	0	-1	366	-17	3.67	2	-0.78	3.10	0	5													
SOUTHEAST	9	76.6	4	0.4	95	28	51	15	0	-1	349	12	4.33	1	-0.41	3.50	8	5													

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



## 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.

**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 the equation to the right for the CDD calculation.

**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.

### Heating Degree Days Calculation

NumDays

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

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

### Cooling Degree Days Calculation

NumDays

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

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

# MESONET MONTHLY SUMMARY FOR JUNE 2002

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
<b>PANHANDLE</b>																					
Arnett	76.7	97	12	51	6	2	364	2.87	1.42	13	Goodwell	77.7	101	10	53	6	1	393	1.37	0.59	4
Beaver	78.9	99	3	52	6	0	431	2.36	1.49	15	Hooker	78.9	102	2	54	6	0	441	1.29	1.09	4
Boise City	77.1	100	2	50	4	4	365	2.06	1.52	4	Kenton	77.9	101	10	52	16	1	388	2.24	0.97	13
Buffalo	79.6	103	12	50	6	0	453	*****	*****	***	Slapout	77.7	98	12	51	6	0	396	*****	*****	***
<b>NORTH CENTRAL</b>																					
Alva	77.8	99	12	51	6	3	399	*****	*****	***	May Ranch	*****	***	***	***	***	****	****	*****	*****	***
Blackwell	76.2	94	27	53	6	2	339	6.03	1.84	12	Medford	77.4	96	11	52	6	3	382	4.61	1.53	4
Breckenridge	77.1	95	12	52	6	2	371	3.19	1.06	15	Newkirk	75.2	91	27	54	6	2	314	4.26	1.65	12
Cherokee	78.4	98	12	53	6	2	412	5.12	1.92	13	Red Rock	76.1	92	12	54	6	1	339	4.41	1.61	15
Fairview	78.4	99	28	55	6	2	414	5.47	2.23	12	Selling	76.9	95	12	51	6	3	369	2.73	1.03	4
Freedom	77.8	100	12	50	6	****	****	2.93	1.05	13	Woodward	77.5	98	12	51	6	2	383	3.22	1.26	12
Lahoma	76.8	96	12	54	6	3	367	5.22	1.79	4											
<b>NORTHEAST</b>																					
Bixby	76.8	91	28	56	15	0	357	4.34	2.53	12	Nowata	75.6	91	28	54	6	0	314	3.79	1.61	12
Burbank	75.3	91	27	53	6	2	308	6.04	3.54	12	Pawnee	75.6	91	28	54	6	0	328	3.22	1.51	12
Claremore	75.9	92	28	56	15	0	337	4.24	2.26	12	Porter	76.9	92	28	58	15	0	359	2.63	0.80	12
Copan	75.9	92	28	54	6	1	328	5.01	2.24	12	Pryor	75.5	91	28	55	15	0	312	2.77	1.88	12
Foraker	74.7	91	27	54	6	2	290	3.54	1.73	12	Skiatook	76.0	91	28	58	6	0	334	3.46	1.93	12
Inola	76.1	92	28	55	15	0	333	2.54	1.58	12	Vinita	75.3	91	21	54	6	0	305	3.97	2.44	12
Jay	74.9	90	28	54	15	****	****	2.79	1.74	12	Wynona	75.5	90	27	55	6	0	320	5.12	2.28	12
Miami	75.6	91	28	54	6	0	316	2.44	1.81	12											
<b>WEST CENTRAL</b>																					
Bessie	77.3	95	12	56	6	0	380	6.66	3.30	8	Putnam	76.0	94	27	52	6	2	351	3.69	1.58	13
Butler	77.5	96	29	54	6	0	383	2.22	0.88	13	Retrop	77.7	95	12	56	6	0	389	2.44	0.88	15
Camargo	77.2	98	12	50	6	4	374	*****	*****	***	Watonga	76.7	96	12	54	6	2	373	1.84	0.69	4
Cheyenne	76.1	93	28	55	6	1	346	2.81	1.18	13	Weatherford	76.7	95	12	55	6	1	370	2.96	1.13	15
Erick	77.3	95	29	58	6	0	377	1.91	0.73	4											
<b>CENTRAL</b>																					
Acme	76.2	91	29	60	17	0	346	3.68	1.96	4	Minco	76.1	92	28	56	6	0	348	3.12	0.90	15
Bowlegs	75.7	90	28	56	15	0	323	5.14	1.47	13	Ninnekah	77.5	94	28	61	17	0	384	4.16	2.32	4
Bristow	75.7	91	28	54	15	0	321	3.93	1.34	12	Norman	76.5	93	28	60	15	0	351	3.15	0.78	15
Chandler	76.2	91	28	58	6	0	336	3.49	1.13	15	Oilton	75.5	91	28	54	15	0	315	4.33	1.32	12
Chickasha	77.0	95	28	59	15	0	358	4.03	1.42	4	Okemah	76.5	91	12	56	15	0	355	4.83	1.63	13
El Reno	75.5	93	28	52	6	0	318	2.53	0.73	15	Perkins	77.3	95	12	56	6	0	375	4.14	1.25	12
Guthrie	77.3	93	12	56	6	0	381	4.36	1.54	12	Shawnee	77.2	92	12	60	15	0	371	3.80	1.34	12
Kingfisher	77.7	95	28	55	6	0	386	4.48	1.46	12	Spencer	76.2	91	28	58	6	0	349	3.24	1.06	15
Marena	75.8	91	28	55	6	0	327	4.85	1.44	12	Stillwater	76.9	92	28	54	6	0	351	4.20	1.78	15
Marshall	77.0	94	12	54	6	1	368	4.21	1.06	15	Washington	75.9	91	28	60	15	0	333	3.50	1.62	4
<b>EAST CENTRAL</b>																					
Calvin	76.2	91	28	56	15	0	342	3.57	0.83	5	Sallisaw	76.6	92	28	55	15	****	****	3.20	2.03	5
Cookson	75.2	91	22	52	15	0	314	5.14	3.05	5	Stigler	76.8	91	21	55	15	****	****	4.47	3.08	5
Eufaula	77.2	92	28	59	15	0	372	5.26	1.97	13	Stuart	76.5	91	28	58	15	0	356	5.68	1.89	13
Haskell	76.8	92	21	57	15	0	357	2.32	0.85	12	Tahlequah	75.1	90	28	52	15	0	303	3.64	0.91	12
Hectorville	76.7	92	28	58	15	0	359	3.20	1.37	12	Webbers Falls	78.1	94	28	57	15	****	****	3.40	2.19	5
McAlester	76.5	91	21	56	15	0	359	6.79	2.44	5	Westville	74.6	90	20	54	15	0	294	3.74	1.13	12
Okmulgee	76.3	91	12	55	15	0	340	2.94	0.97	12											
<b>SOUTHWEST</b>																					
Altus	79.9	98	12	59	6	0	445	2.14	1.09	15	Hollis	78.3	97	12	58	6	0	404	3.54	1.43	4
Apache	76.3	92	12	58	6	0	350	2.03	0.79	13	Mangum	78.3	97	26	56	6	0	397	1.67	0.82	13
Fort Cobb	77.4	95	12	58	6	0	382	4.36	2.15	8	Medicine Park	76.9	92	26	59	6	0	370	2.45	0.84	4
Grandfield	79.2	97	3	60	6	0	432	6.35	3.54	4	Tipton	79.8	97	12	60	6	0	446	2.27	1.07	15
Hinton	76.4	94	12	55	6	0	357	3.51	1.04	4	Walters	78.8	95	26	60	6	0	413	3.54	1.39	4
Hobart	78.1	96	12	56	6	0	401	2.55	0.84	15											
<b>SOUTH CENTRAL</b>																					
Ada	76.2	90	28	57	15	0	333	4.26	1.59	13	Lane	76.8	91	12	57	15	0	374	4.56	2.00	13
Ardmore	77.1	91	28	61	15	0	371	*****	*****	***	Madill	77.6	92	28	61	15	0	387	4.30	1.97	5
Bee	78.4	93	28	59	15	0	404	4.34	1.56	5	Pauls Valley	77.2	91	28	61	17	0	370	2.28	0.72	13
Burneyville	77.6	92	29	60	17	0	378	4.32	1.34	4	Ringling	77.3	92	12	62	6	0	380	4.16	1.32	13
Byars	76.4	90	12	61	15	0	350	3.53	1.67	4	Sulphur	76.5	90	12	59	15	0	350	4.38	1.97	4
Centrahoma	76.3	91	23	55	15	0	348	3.34	2.38	13	Tishomingo	76.0	90	12	57	15	0	342	4.55	2.04	5
Durant	77.7	91	23	62	15	0	395	4.14	1.89	5	Vanoss	*****	***	***	***	***	****	****	*****	*****	***
Ketchum Ranch	76.5	91	28	61	17	0	353	2.73	0.70	4	Waurika	77.7	93	26	62	6	0	388	4.09	1.53	13
<b>SOUTHEAST</b>																					
Antlers	76.0	92	28	51	15	****	****	4.81	2.39	5	Idabel	77.8	93	21	56	15	0	397	1.66	0.55	9
Broken Bow	75.5	92	22	55	15	0	344	3.52	2.32	9	Mt Herman	75.1	90	21	53	15	****	****	2.45	0.76	5
Clayton	76.9	93	21	55	15	0	370	*****	*****	***	Talihina	76.9	94	21	53	15	0	364	3.54	1.81	5
Cloudy	76.1	90	23	56	15	0	350	4.01	2.04	5	Wilburton	75.9	92	28	54	15	0	346	4.32	2.16	5
Hugo	77.2	90	21	58	15	0	372	3.84	1.78	5	Wister	76.2	92	21	56	15	0	345	4.32	2.56	5



## EXTREME VALUES OF TEMPERATURE AND PRECIPITATION IN EACH CLIMATE DIVISION JUNE 2002

CD	MAX TEMP	DATE	LOCATION	MIN TEMP	DATE	LOCATION	24-HOUR PRECIP	DATE	LOCATION	MONTHLY PRECIP	LOCATION
1	103	11	GOODWELL	48	6	GAGE	3.20	13	GAGE	4.68	GAGE
	103	12	GOODWELL								
	103	11	GUYMON								
2	100	13	ALVA	46	6	FT SUPPLY	5.71	13	FT SUPPLY	10.55	BRAMAN
3	94	27	BARTLESVILLE	46	5	NOWATA	3.30	13	RALSTON	5.85	PAWHUSKA
	94	28	BARTLESVILLE								
4	97	13	ERICK	53	6	CANTON DAM	4.10	9	CORDELL	6.34	CORDELL
	97	29	ERICK	53	6	OKEENE					
	97	12	OKEENE	53	7	OKEENE					
	97	1	TALOGA	53	6	REYDON					
				53	7	REYDON					
5	97	13	HENNESSEY	52	6	HENNESSEY	2.45	13	HENNESSEY	5.99	CUSHING
6	95	12	HOLDENVILLE	44	5	OKMULGEE	3.10	5	LAKE EUFAULA	6.53	MCALESTER
	95	23	HOLDENVILLE								
	95	28	HOLDENVILLE								
7	99	12	HOBART	48	7	WICHITA MT	4.14	5	LAWTON	5.47	LAWTON
	99	3	HOLLIS								
	99	11	HOLLIS								
	99	12	HOLLIS								
8	95	28	LINDSAY	56	15	ATOKA DAM	3.10	5	CHICKASAW	6.49	PONTOTOC
	95	13	MADILL	56	15	CENTRAHOMA					
9	95	3	IDABEL	51	15	BATTIEST	3.58	5	FANSHAWE	7.55	FANSHAWE
	95	27	IDABEL	51	15	SMITHVILLE					
	95	28	IDABEL								

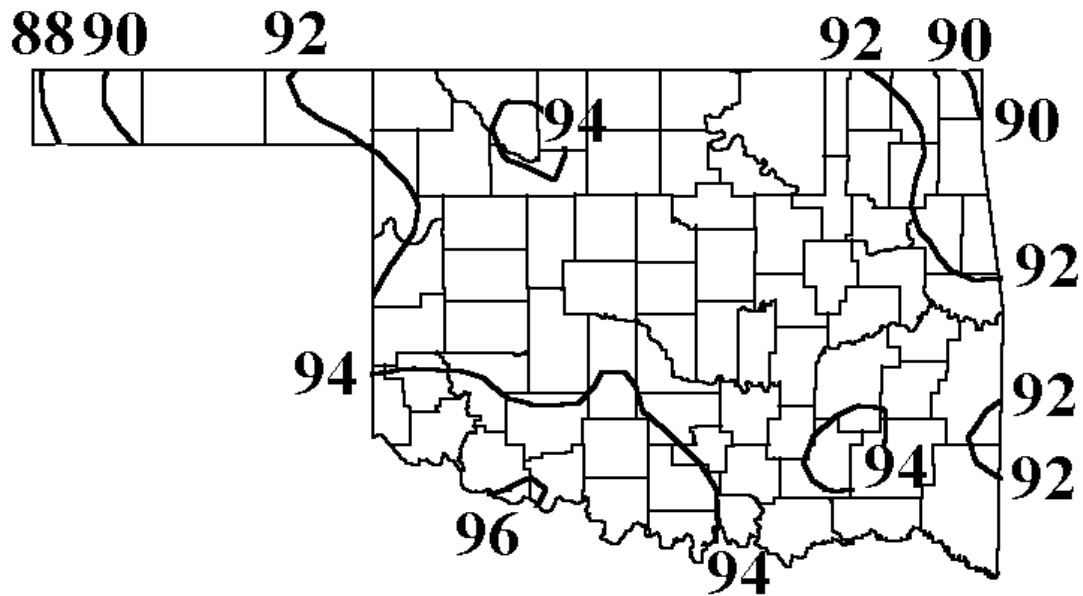
### TABLE OF 2001/2002 COMPARISONS

Station	June Temperature ( F )		June Precipitation (in.)	
	2001	2002	2001	2002
Arnett	74.3	75.8	2.11	4.52
Enid	78.2	79.4	1.65	4.48
Tulsa	78.1	78.0	3.05	2.90
Elk City	77.1	76.8	0.76	2.89
Oklahoma City	76.3	76.3	0.55	4.56
McAlester	76.6	77.0	3.83	6.53
Altus Irr Station	80.9	79.8	0.35	2.13
Ardmore	79.9	78.8	2.53	4.63
Idabel	77.4	79.7	5.27	1.50

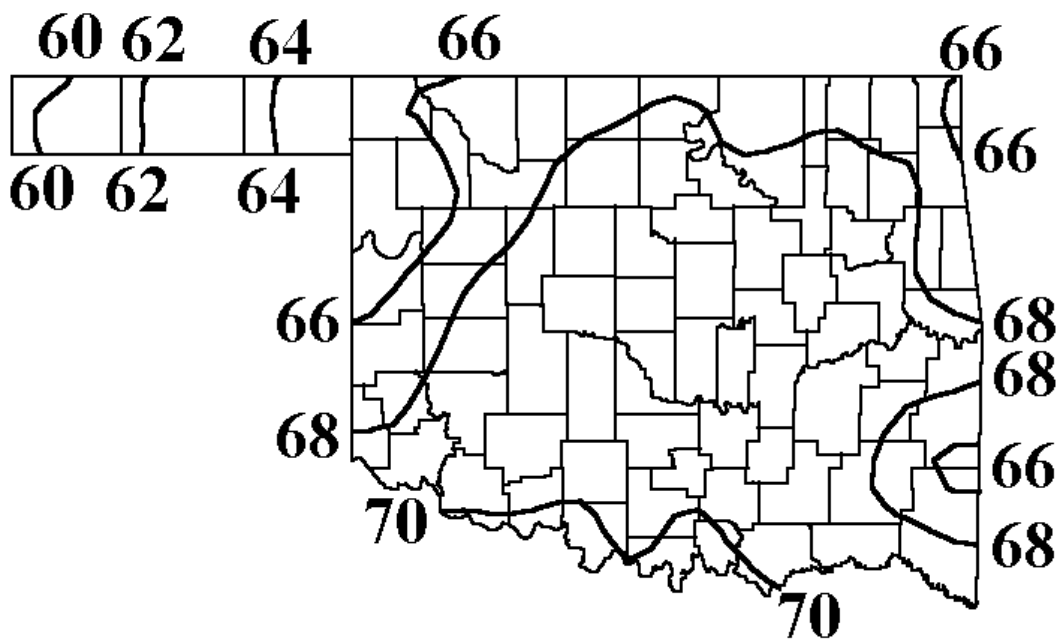
### JUNE 2002 STATEWIDE EXTREMES

VARIABLE	STATION	DIVISION	OBSERVATION	DATE
Minimum temperature ( F )	Okmulgee	6	44	5
Maximum temperature ( F )	Goodwell	1	103	11,12
	Guymon	1	103	11
Maximum 24-hour Precipitation	Ft. Supply	2	5.71	13

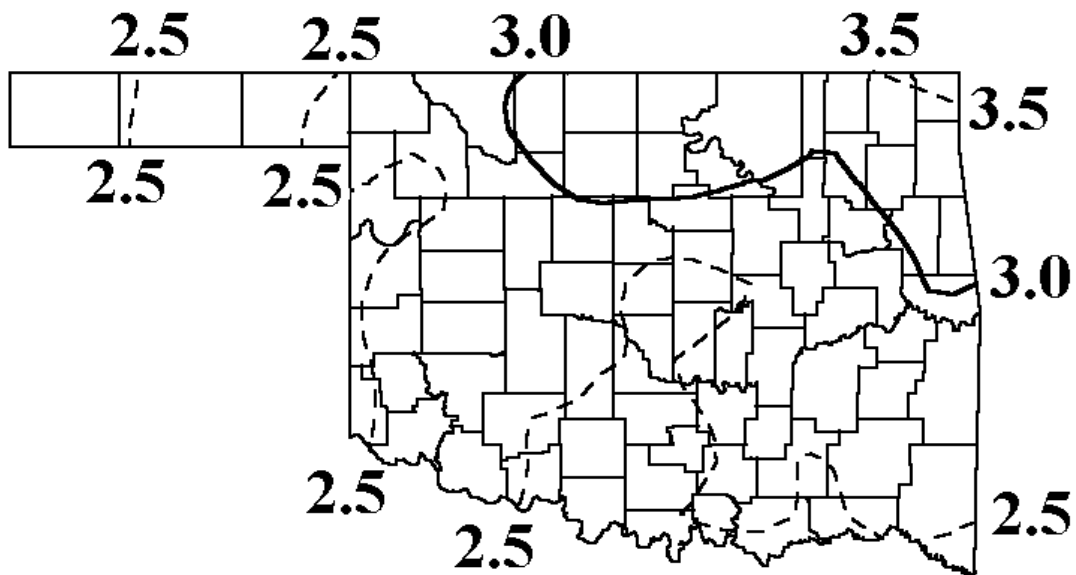
AUGUST NORMAL DAILY MAXIMUM TEMPERATURE (°F)



AUGUST NORMAL DAILY MINIMUM TEMPERATURE (°F)



## AUGUST NORMAL MONTHLY PRECIPITATION (INCHES)



## AUGUST TORNADO STATISTICS

The most tornadoes reported in **AUGUST** for Oklahoma was (13) in 1979.

The average number of tornadoes in **AUGUST** for Oklahoma is (1.6).

## OUTLOOK FOR AUGUST 2002 THROUGH OCTOBER 2002

BASED ON SEASONAL OUTLOOK PROVIDED BY THE CLIMATE PREDICTION CENTER

**Temperature: Above Normal Temperature in Panhandle  
Near Normal Elsewhere**

**Precipitation: Near Normal Precipitation Statewide**

**OKLAHOMA CITY CLIMATE CALENDAR**

**AUGUST**

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	83	95		108	1980	72	1950	71		83	1934	58	1971	0.07		2.38	1995
2	83	94		110	1980	80	1898	71		81	1932	57	1971	0.07		1.41	1894
3	83	94		106	1930	72	1907	71		80	1944	59	1973	0.07		1.82	1990
4	83	94		105	1918	75	1978	71		82	1980	58	1973	0.07		1.32	1985
5	83	94		106	1964	76	1920	71		80	1923	55	1894	0.07		1.24	1999
6	83	94		107	1951	76	1971	71		80	1980	56	1894	0.07		1.38	1965
7	82	94		107	1946	69	1997	71		82	1951	57	1993	0.07		2.15	1939
8	82	94		106	1970	75	1997	71		82	1951	54	1989	0.07		2.60	1912
9	82	94		109	1936	75	1927	71		80	1970	58	1908	0.07		1.83	1915
10	82	94		112	1936	71	1989	71		81	1937	62	1917	0.07		1.18	1977
11	82	94		113	1936	73	1968	71		82	1936	58	1931	0.08		2.86	1892
12	82	94		110	1936	72	1920	70		83	1936	56	1967	0.08		1.85	1901
13	82	93		107	1936	73	1989	70		83	1936	54	1967	0.08		1.67	1989
14	82	93		106	1956	68	1989	70		79	1943	60	1967	0.08		1.93	1989
15	82	93		107	1956	77	1942	70		81	1954	59	1992	0.08		2.69	1945
16	81	93		107	1956	79	1964	70		81	1934	53	1994	0.08		1.32	1981
17	81	93		108	1909	76	1932	70		82	1934	59	1994	0.08		0.93	1932
18	81	93		104	1918	68	1992	70		81	1934	57	1943	0.08		2.87	1966
19	81	92		106	1934	72	1915	69		80	1954	56	1932	0.09		0.87	1977
20	81	92		105	1911	65	1950	69		81	1934	56	1950	0.09		1.83	1983
21	81	92		105	1911	74	1920	69		81	1934	51	1956	0.09		1.20	1979
22	80	92		104	1922	72	1920	69		80	1922	56	1956	0.09		3.17	1934
23	80	91		105	1980	70	1966	69		80	1988	49	1891	0.09		2.27	1924
24	80	91		107	1922	73	1966	69		78	1936	50	1891	0.09		1.11	1918
25	80	91		102	2000	72	1934	68		78	1936	58	1966	0.10		1.81	1934
26	79	91		105	1999	68	1992	68		78	1936	53	1910	0.10		1.16	1896
27	79	90		104	2000	69	1987	68		78	1963	52	1906	0.10		1.53	1941
28	79	90		103	2000	68	1988	68		80	1951	56	1906	0.10		1.44	1900
29	79	90		106	1984	70	1968	67		79	1951	50	1893	0.10		2.33	1935
30	78	89		105	1947	70	1915	67		78	1947	49	1915	0.11		1.32	1928
31	78	89		104	2000	67	1993	67		79	1980	51	1915	0.11		2.35	1966
<b>MONTH</b>	<b>81.1</b>	<b>92.5</b>		<b>113</b>	<b>1936</b>	<b>65</b>	<b>1950</b>	<b>69.6</b>		<b>83</b>	<b>1936</b>	<b>49</b>	<b>1915</b>	<b>0.10</b>		<b>3.17</b>	<b>1934</b>

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

**TULSA CLIMATE CALENDAR**

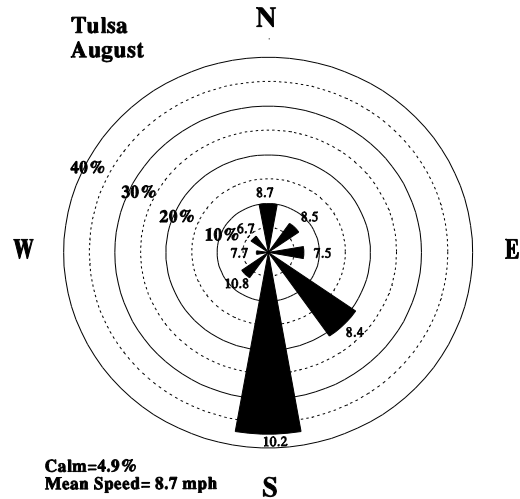
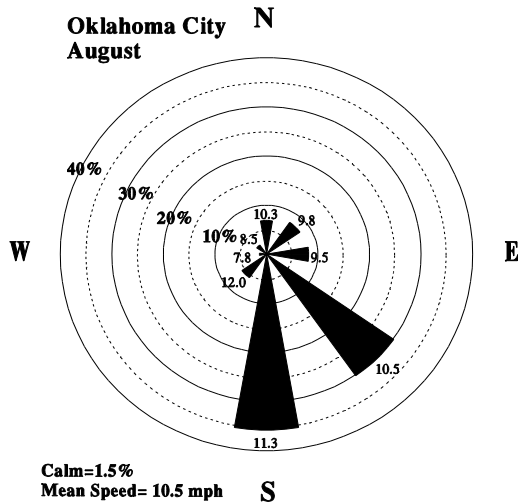
**AUGUST**

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	Record High	Lowest Max	Year	Ave. Low	2002	Highest Min.	Year	Record Low	Year	Avg. Precip.	2002	Greatest Precip.	Year
1	84	95	110	76	1923	73		86	1980	59	1925	0.09		1.62	1915
2	84	95	108	82	1980	73		84	1980	57	1971	0.09		1.55	1917
3	84	95	110	80	1923	73		81	1987	57	1976	0.09		1.82	1911
4	83	94	111	72	1923	72		84	1980	52	1920	0.08		2.25	1928
5	83	94	110	72	1964	72		82	1980	57	1920	0.09		1.64	1906
6	83	94	109	70	1956	72		82	1980	60	1997	0.09		1.82	1944
7	83	94	109	78	1935	72		83	2000	58	1993	0.09		2.25	1905
8	83	94	111	72	1935	72		84	1936	57	1989	0.09		2.43	1973
9	83	94	114	75	1936	72		82	2001	59	1989	0.09		2.65	1974
10	83	94	115	77	1936	72		83	1934	55	1920	0.09		2.19	1979
11	83	94	114	74	1936	72		81	1936	58	1931	0.09		2.00	1902
12	82	94	113	75	1936	71		83	1936	52	1967	0.09		1.35	1941
13	82	93	114	74	1936	71		84	1980	54	1967	0.09		1.37	1949
14	82	93	110	70	1923	71		83	1980	53	1920	0.09		3.39	1942
15	82	93	109	72	1936	71		84	1909	53	1994	0.09		2.19	1969
16	82	93	109	77	1956	71		86	1909	57	1992	0.09		5.12	1938
17	82	93	109	74	1909	71		84	1956	53	1920	0.10		2.04	1938
18	81	93	109	76	1918	70		84	1934	54	1943	0.10		1.82	1928
19	81	92	108	74	1934	70		82	1936	56	1932	0.10		1.60	1915
20	81	92	106	66	1935	70		82	1936	53	1967	0.10		5.37	1989
21	81	92	106	75	1936	70		80	1987	54	1950	0.10		3.21	1937
22	81	92	106	72	1936	70		80	2001	50	1920	0.11		1.14	1971
23	80	91	108	68	1936	70		79	2000	51	1920	0.11		1.32	1930
24	80	91	107	69	1936	69		80	1983	53	1920	0.11		2.23	1911
25	80	91	105	73	1978	69		80	1998	57	1966	0.11		2.05	1946
26	80	90	109	74	1999	69		81	1978	52	1910	0.12		1.91	1987
27	79	90	105	70	2000	69		81	2000	50	1910	0.12		1.42	1927
28	79	90	104	67	1963	68		80	2000	53	1967	0.12		3.74	1927
29	79	89	107	70	1984	68		79	1984	51	1931	0.13		2.36	1955
30	79	89	107	72	1947	68		79	1983	50	1915	0.13		0.95	1928
31	78	89	106	72	1951	68		84	1980	48	1915	0.13		1.86	1962
<b>MONTH</b>	<b>81.5</b>	<b>92.5</b>	<b>115</b>	<b>66</b>	<b>1936</b>	<b>70.6</b>		<b>86</b>	<b>1980</b>	<b>50</b>	<b>1920</b>	<b>0.10</b>		<b>5.37</b>	<b>1989</b>

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

## AUGUST WIND ROSES



**August 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.

## AUGUST SUNRISE/SUNSET TIMES FOR 2002

ALL TIMES ARE CENTRAL STANDARD TIME

### OKLAHOMA CITY

DATE	SUNRISE	SUNSET
8/1/02	5:39 AM	7:34 PM
8/2/02	5:39 AM	7:33 PM
8/3/02	5:40 AM	7:32 PM
8/4/02	5:41 AM	7:31 PM
8/5/02	5:42 AM	7:30 PM
8/6/02	5:42 AM	7:29 PM
8/7/02	5:43 AM	7:28 PM
8/8/02	5:44 AM	7:27 PM
8/9/02	5:45 AM	7:26 PM
8/10/02	5:45 AM	7:25 PM
8/11/02	5:46 AM	7:24 PM
8/12/02	5:47 AM	7:23 PM
8/13/02	5:48 AM	7:22 PM
8/14/02	5:49 AM	7:20 PM
8/15/02	5:49 AM	7:19 PM
8/16/02	5:50 AM	7:18 PM
8/17/02	5:51 AM	7:17 PM
8/18/02	5:52 AM	7:16 PM
8/19/02	5:52 AM	7:14 PM
8/20/02	5:53 AM	7:13 PM
8/21/02	5:54 AM	7:12 PM
8/22/02	5:55 AM	7:11 PM
8/23/02	5:56 AM	7:09 PM
8/24/02	5:56 AM	7:08 PM
8/25/02	5:57 AM	7:07 PM
8/26/02	5:58 AM	7:05 PM
8/27/02	5:59 AM	7:04 PM
8/28/02	5:59 AM	7:03 PM
8/29/02	6:00 AM	7:01 PM
8/30/02	6:01 AM	7:00 PM
8/31/02	6:02 AM	6:59 PM

### TULSA

DATE	SUNRISE	SUNSET
8/1/02	5:31 AM	7:29 PM
8/2/02	5:32 AM	7:28 PM
8/3/02	5:32 AM	7:27 PM
8/4/02	5:33 AM	7:26 PM
8/5/02	5:34 AM	7:25 PM
8/6/02	5:35 AM	7:24 PM
8/7/02	5:36 AM	7:23 PM
8/8/02	5:36 AM	7:22 PM
8/9/02	5:37 AM	7:21 PM
8/10/02	5:38 AM	7:20 PM
8/11/02	5:39 AM	7:19 PM
8/12/02	5:40 AM	7:17 PM
8/13/02	5:40 AM	7:16 PM
8/14/02	5:41 AM	7:15 PM
8/15/02	5:42 AM	7:14 PM
8/16/02	5:43 AM	7:13 PM
8/17/02	5:44 AM	7:11 PM
8/18/02	5:44 AM	7:10 PM
8/19/02	5:45 AM	7:09 PM
8/20/02	5:46 AM	7:08 PM
8/21/02	5:47 AM	7:06 PM
8/22/02	5:48 AM	7:05 PM
8/23/02	5:48 AM	7:04 PM
8/24/02	5:49 AM	7:02 PM
8/25/02	5:50 AM	7:01 PM
8/26/02	5:51 AM	7:00 PM
8/27/02	5:51 AM	6:58 PM
8/28/02	5:52 AM	6:57 PM
8/29/02	5:53 AM	6:56 PM
8/30/02	5:54 AM	6:54 PM
8/31/02	5:55 AM	6:53 PM

ADD ONE HOUR FOR CENTRAL DAYLIGHT TIME

## CONTACT INFORMATION

---



### **Oklahoma Climatological Survey**

The University of Oklahoma  
100 East Boyd Street, Suite 1210  
Norman, OK 73019-1012

tel 405-325-2541

fax 405-325-2550

e-mail [ocs@ou.edu](mailto:ocs@ou.edu)

Office Hours: 8 AM to 5 PM, Monday-Friday

Mesonet Operators

tel 405-325-3231

e-mail [operator@operations.ocs.ou.edu](mailto:operator@operations.ocs.ou.edu)

**Visit our website at <http://www.ocs.ou.edu>.**

Content: Howard Johnson  
Shaye Palmer

Layout: Stdrovia Blackburn  
John Humphrey

The University of Oklahoma is an equal opportunity employer.