OKLAHOMA
MONTHLY SUMMARY
JUNE 1991

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*** PLEASE POST ***

MOVING NOTICE

We are pleased to announce that the Oklahoma Climatological Survey will move to its permanent location in the Energy Center Tower on July 25, 1991.

Please note our new campus address:

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JUNE 1991 OKLAHOMA SUMMARY

Heavy rains hit many parts of Oklahoma in June, bringing all but the northeast region to near or above-normal precipitation. Preliminary data shows a state-averaged total of 4.64 inches in June, 0.92 inch above normal. This places June 1991 as the 28th wettest of the last 100 years. Heavy rains across southwest and south central Oklahoma (Climate Divisions 7 and 8) pushed June precipitation to twice the normal monthly rainfall. Madill led the way with 16.96 inches for the month, only 3.38 inches behind normal for the entire first six months of the year. The heavy June precipitation brought the statewide year-to-date total to 17.71 inches, 0.05 inch behind normal.

Temperatures statewide averaged 0.4 degree above normal during June. The 78.0 degree average temperature continued the trend of above-normal temperatures, raising the average to 58.2 degrees for the first six months of 1991. The year-to-date average stands 2.1 degrees above normal, the 14th warmest on record. Abundant moisture from the heavy rains helped to keep the air from cooling rapidly at night, contributing to the warm monthly temperatures.

A trough of low pressure, which was stalled across the Oklahoma and Texas Panhandles, became the focus for thunderstorm development early in the month. Thunderstorms moved very slowly eastward across Oklahoma, bringing daily rainfall totals in excess of five inches at Altus (5.87 inches) and Snyder (5.41 inches) on the 2nd and at Sedan (5.28 inches) on the 3rd. Flash floods chased some residents of Altus from their homes and caused an estimated $2 million in damage to the Altus Municipal Airport. Heavy rains, high winds and hail in other regions of the state also caused significant damage and hampered the wheat harvest. As the disturbance moved eastward on the 5th, tornadoes were reported near Stringtown, Lane and Boswell.

The rains shifted eastward on the 6th, as a cold front slipped into the state from the northeast and stalled across east-central Oklahoma. Thunderstorms, which remained nearly stationary, developed along the front and dropped heavy rain in the Lake Texoma region from the 6th-8th. Kingston reported a total of 10.90 inches during the period, and Madill received 10.07 inches. Flooding of streets and low-lying areas near the lake posed problems to area residents and visitors attending the Madill Sand Bass Festival at Lake Murray.

The front also brought cooler air to the state for several days. Maximum temperatures were only in the 70's across many parts of the state from the 6th-10th, and minimum temperatures fell as low as the mid 50's in the Panhandle. The cooler air did not inhibit the further development of thunderstorms however, as rainfall totals in excess of an inch were reported across many sections of the state during the middle of the month.

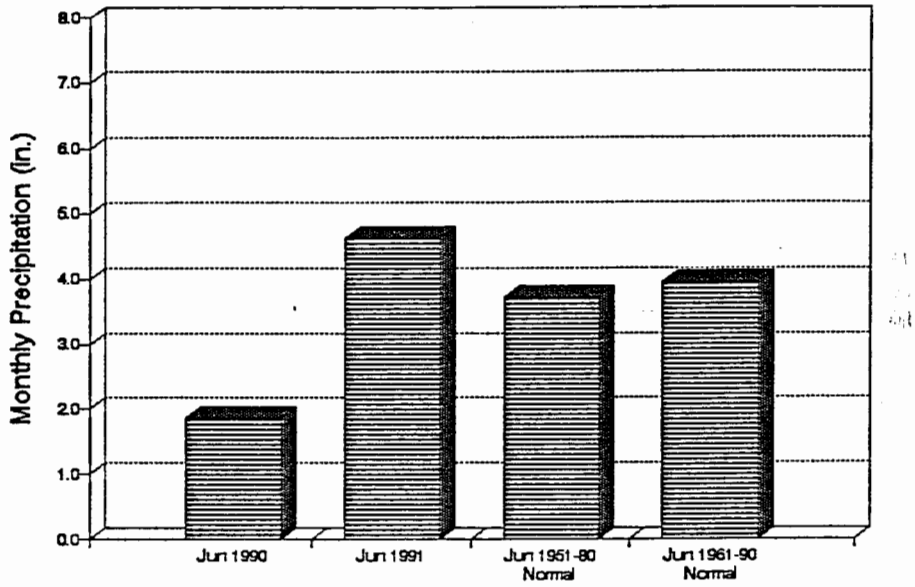
As the influence of the front left Oklahoma, temperatures returned to the 90's, with several readings above 100 degrees being reported on the 13th and 14th. Buffalo reached the 100 degree mark on the 13th and 14th, attaining the highest temperature reported in the state during June on the 14th with 104 degrees. Maximum temperatures remained in the low 90's with minimum temperatures in the low 70's in most parts of the state for the remainder of the month.

A slow-moving cold front began producing heavy rain across north central Oklahoma on the 22nd. As the front pushed to central Oklahoma on the 23rd, central and southern regions of the state were hit once again. Norman reported 6.66 inches of rain on the 23rd, and Durant reported 4.42 inches the same day.

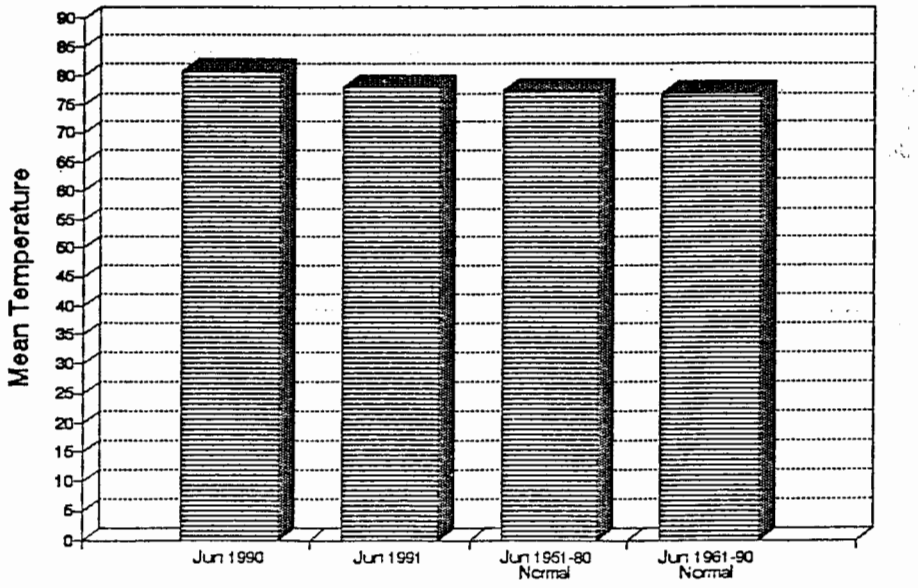
A ridge of high pressure built across Oklahoma after the front finally cleared the state on the 25th. The high pressure helped to inhibit thunderstorm development. No precipitation was reported in Oklahoma on the 27th, the first such occurrence since April 5. The dry day ended a streak of 82 consecutive days of reported rainfall in Oklahoma, contrasting sharply with the dry start of the year.

-Mark A. Shafer

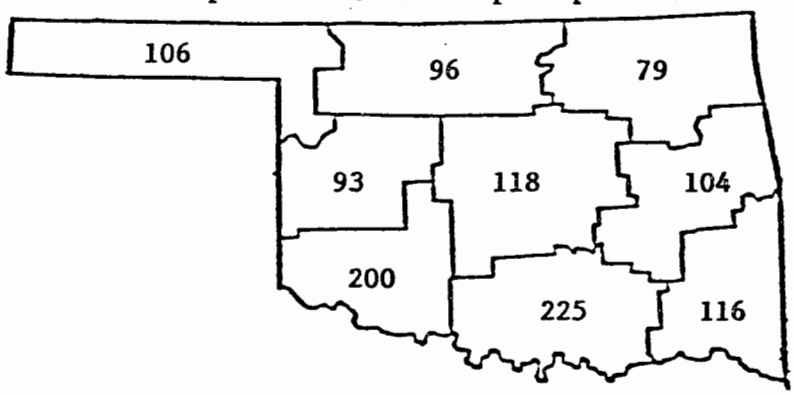
Comparison of Monthly Precipitation
Statewide Average for Oklahoma



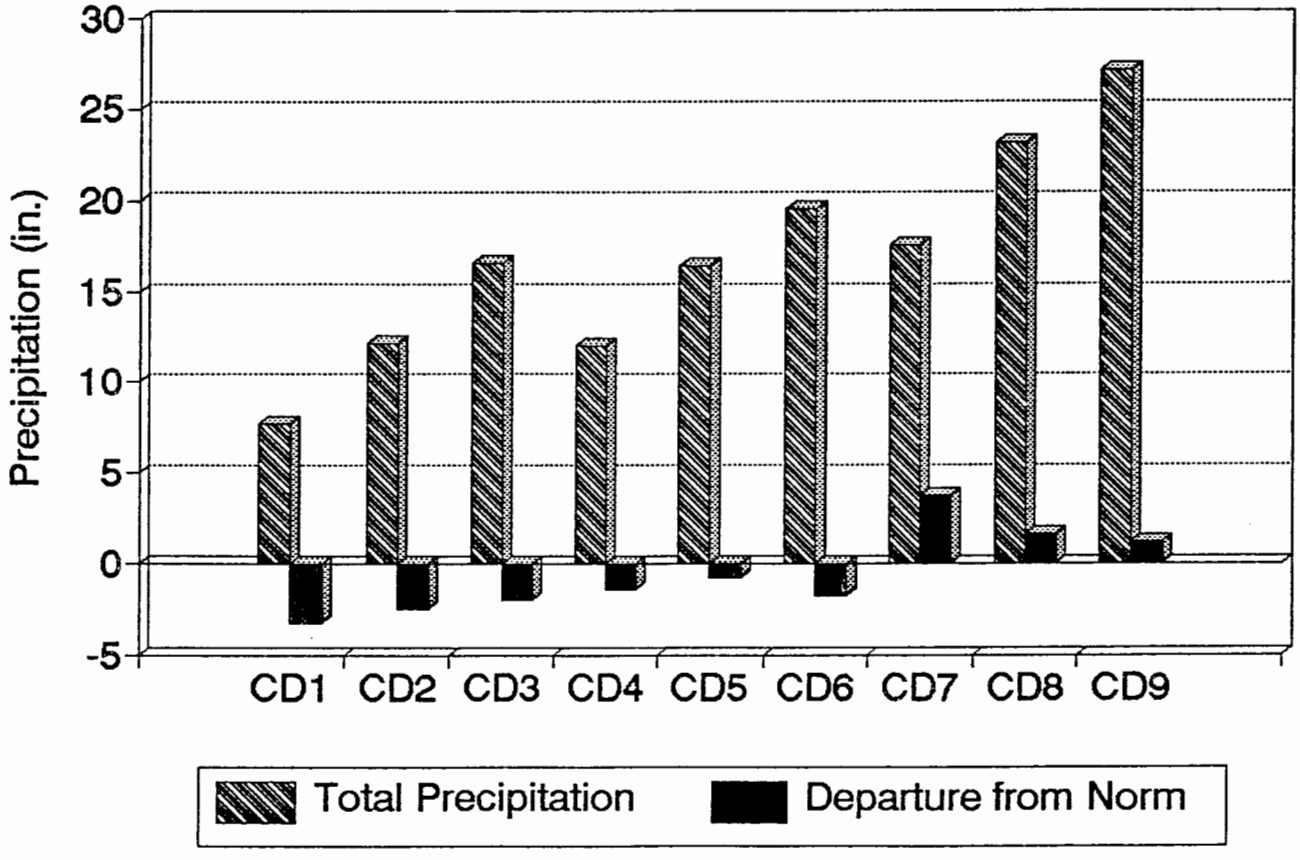
Comparison of Monthly Temperature
Statewide Average for Oklahoma



June 1991 percent of normal precipitation.



CD Averaged Precipitation
Jan-Jun 1991



EXTREME VALUES OF TEMPERATURE AND PRECIPITATION IN EACH CLIMATE DIVISION
JUNE, 1991

CD	MAX TEMP	DATE	LOCATION	MIN TEMP	DATE	LOCATION	MONTHLY PRECIP	LOCATION	24-HOUR PRECIP	DATE	LOCATION
1	104	14	BUFFALO	41	5	GOODWELL	4.20	GUYMON	1.95	2	GAGE
2	100	14	FREEDOM	51	2	ENID	5.94	NEWKIRK	2.65	22	NEWKIRK
	100	29	PERRY								
3	97	25	UPR SPAVINAW	58	8	VINITA	8.11	PAWHUSKA	4.00	5	PAWHUSKA
4	100	25	CLINTON	52	3	CANTON	4.60	ELK CITY	2.50	2	GEARY
5	98	22	KINGFISHER	57	4	PURCELL	9.29	NORMAN	6.66	23	NORMAN
	98	6	MEEKER								
6	98	22	MCCURTAIN	60	9	HANNA	9.37	ASHLAND	3.80	23	BOYNTON
				60	9	OKMULGEE					
7	99	26	ALTUS	56	2	MANGUM	11.20	SNYDER	5.87	2	ALTUS
	99	26	MANGUM								
8	98	20	CANEY	57	2	HEALDTON	16.96	MADILL	7.50	8	KINGSTON
				57	4	MARLOW					
9	96	19	BOSWELL	58	8	POTEAU	8.47	ANTLERS	2.20	22	WILBURTON
	96	22	POTEAU								

TABLE OF 1990/1991 COMPARISONS

Station	June Temperature (F) 1990	1991	June Precipitation (in.) 1990	1991
Arnett	79.2	75.1	.68	2.47
Enid	83.1	78.7	.15	4.35
Mutual	80.5	76.9	.48	2.86
Tulsa	82.6	80.5	1.08	3.62
Elk City	81.7	77.6	1.70	4.60
Oklahoma City	82.1	78.5	1.25	3.85
McAlester	80.4	78.4	1.79	4.04
Altus Irr Sta	83.9	79.5	2.61	11.04
Durant	80.0	78.2	2.90	12.52
Ada	80.1	77.0	1.73	5.42
Antlers	80.2	78.0	3.14	8.47

EXTREMES

Variable	Station	Divison	Observation	Date
Minimum temperature (F)	Boise City	1	50	2
Maximum temperature (F)	Buffalo	1	104	14
Maximum 24-hour	Kingston	8	7.50"	8

JUNE 1991 SUMMARY FOR NORTHWEST DIVISION (CD1)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	MAX DAY	MIN TEMP	MIN DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	MAX DAY
ARNETT	332	1	75.1	30	-.6	96.	15	55.	3	1.0	-6.0	303.5	-24.5	2.474	30	-.82	1.15	2
BEAVER	593	1	77.1	30	.9	101.	26	54.	3	.0	-10.0	361.5	15.5	1.150	30	-1.69	.52	16
BOISE CITY 2 E	908	1	73.1	30	-.4	100.	25	50.	2	.0	-10.0	242.0	-23.0	2.370	30	.38	1.04	19
BUFFALO	1243	1	80.7	30	2.3	104.	14	56.	3	.0	-6.0	470.5	62.5	3.300	30	-.30	1.20	22
FARGO	3070	1	*****	0	*****	****	0	****	0	******	******	******	******	2.303	30	-.91	.86	2
GAGE FAA APT	3407	1	77.5	30	.9	99.	14	54.	3	.0	.0	375.0	22.0	3.176	30	.41	1.95	2
GATE	3489	1	77.6	30	*****	97.	30	56.	3	.0	******	377.0	******	3.150	29	*****	1.26	11
GOODWELL RES ST	3628	1	73.5	30	-1.1	99.	26	54.	19	2.5	-8.5	258.5	-40.5	3.752	30	1.45	1.06	19
GUYMON	3835	1	75.2	30	*****	99.	25	53.	3	.0	******	306.5	******	4.200	30	*****	1.00	6
HOOKER	4298	1	74.4	30	-1.2	97.	26	55.	4	1.0	-9.0	282.5	-45.5	2.410	30	-.54	.55	19
KENTON	4766	1	72.9	30	-.8	100.	28	51.	12	.0	-14.0	237.5	-37.5	.700	30	-1.12	.50	6
LAVERNE	5045	1	*****	0	*****	****	0	****	0	******	******	******	******	3.221	30	.25	.76	2
OPTIMA LAKE	6740	1	74.9	30	*****	97.	26	54.	3	1.5	******	299.0	******	3.250	30	*****	1.56	19
REGNIER	7534	1	*****	0	*****	****	0	****	0	******	******	******	******	2.470	30	.67	1.47	6
TURPIN 4 SSE	9017	1	76.6	30	*****	100.	26	53.	3	1.5	******	348.0	******	2.020	28	*****	1.02	19

JUNE 1991 SUMMARY FOR NORTH CENTRAL DIVISION (CD2)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	MAX DAY	MIN TEMP	MIN DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	MAX DAY
ALVA	193	2	80.3	30	*****	100.	14	59.	3	.0	******	459.5	******	2.530	30	*****	1.15	24
VANCE AFB	302	2	*****	0	*****	****	0	****	0	******	******	******	******	5.492	29	*****	3.06	2
BILLINGS	755	2	78.9	30	*****	96.	30	62.	2	.0	******	416.0	******	5.052	30	.94	2.15	8
BLACKWELL 2E	818	2	78.7	30	*****	97.	30	62.	4	.0	******	411.5	******	3.730	30	*****	1.73	2
BRAMAN	1075	2	*****	0	*****	****	0	****	0	******	******	******	******	2.300	30	*****	1.08	2
CHEROKEE	1724	2	80.8	30	1.9	100.	15	62.	9	.0	.0	474.5	57.5	4.520	30	.53	2.00	23
ENID	2912	2	78.9	29	.4	96.	21	57.	1	.0	.0	402.5	-2.5	4.350	29	*****	2.88	1
FT SUPPLY DAM	3304	2	76.1	30	-.8	95.	15	56.	3	.0	-6.0	334.0	-29.0	4.222	30	1.28	1.59	2
FREEDOM	3358	2	78.6	30	*****	100.	14	57.	3	.0	******	409.0	******	3.010	30	*****	1.50	24
GREAT SALT PLNS	3740	2	80.1	30	*****	99.	28	60.	4	.0	******	453.5	******	1.751	24	*****	.85	2
HARDY	3909	2	*****	0	*****	****	0	****	0	******	******	******	******	5.462	27	*****	1.70	1
HELENA 1 SSE	4019	2	78.6	30	*****	97.	15	61.	10	.0	******	407.0	******	4.860	30	.91	1.93	24
JEFFERSON	4573	2	79.8	30	1.1	98.	30	61.	9	.0	.0	444.0	33.0	3.191	30	-.79	2.39	1
LAMONT	5013	2	*****	0	*****	****	0	****	0	******	******	******	******	2.352	30	*****	1.31	1
MEDFORD	5768	2	*****	0	*****	****	0	****	0	******	******	******	******	2.050	30	*****	1.37	1
MORRISON	6065	2	*****	0	*****	****	0	****	0	******	******	******	******	5.060	30	*****	1.66	7
MUTUAL	6139	2	76.9	30	-.3	99.	15	56.	3	.0	-6.0	356.0	-16.0	2.860	30	-.31	1.35	2
NEWKIRK	6278	2	77.8	30	.3	93.	25	62.	5	.0	.0	385.0	10.0	5.942	30	1.35	2.65	22
ORIENTA	6751	2	*****	0	*****	****	0	****	0	******	******	******	******	2.510	30	*****	1.82	2
PERRY	7012	2	79.9	30	1.8	100.	29	62.	4	.0	.0	447.5	54.5	3.220	30	-.91	1.87	8
PONCA CITY FAA	7201	2	79.3	29	2.1	95.	28	63.	4	.0	.0	415.5	49.5	5.762	30	1.59	2.28	2
RED ROCK 1 NNE	7505	2	*****	0	*****	****	0	****	0	******	******	******	******	5.210	30	1.18	2.42	8
WAYNOKA	9404	2	78.3	30	-.2	99.	14	57.	3	.0	.0	400.5	-4.5	3.530	30	-.22	1.51	24
WOODWARD	9760	2	*****	0	*****	****	0	****	0	******	******	******	******	1.851	30	*****	.70	11

JUNE 1991 SUMMARY FOR NORTHEAST DIVISION (CD3)

NAME	ID	CD	MEAN TEMP	DEV FROM NORM	NUM OBS	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	77.1	*****	30	91.	27	63.	11	.0	******	362.0	******	4.991	30	.45	2.40	5
BARTLESVILLE 2W	548	3	79.2	2.2	30	95.	26	62.	5	.0	.0	426.5	66.5	3.273	30	-.82	1.17	8
BIXBY	782	3	78.0	1.1	30	96.	22	64.	9	.0	.0	391.0	30.0	4.200	30	-.54	1.65	8
BURBANK	1256	3	*****	*****	0	****	0	****	0	******	******	******	******	5.492	30	*****	1.35	22
CHELSEA 4 S	1717	3	*****	*****	0	****	0	****	0	******	******	******	******	3.150	30	*****	1.75	8
CLAREMORE	1828	3	77.8	1.4	30	92.	28	63.	11	.0	.0	382.5	43.5	2.800	30	-1.83	1.44	6
CLEVELAND 5 WSW	1902	3	78.3	*****	28	95.	27	62.	4	.0	******	371.0	******	4.150	30	*****	1.52	7
FORAKER	3250	3	*****	*****	0	****	0	****	0	******	******	******	******	9.481	30	5.29	2.72	5
HOMINY	4289	3	*****	*****	0	****	0	****	0	******	******	******	******	3.330	30	-.82	.96	2
HULAH DAM	4393	3	77.8	*****	20	94.	28	62.	7	.0	******	255.0	******	4.610	29	*****	1.04	16
JAY TOWER	4567	3	77.4	*****	30	97.	28	57.	7	.0	******	371.0	******	.980	30	*****	.40	2
KANSAS 1 ESE	4672	3	76.6	*****	30	93.	25	61.	8	.0	******	348.5	******	1.383	30	*****	1.10	6
KEYSTONE DAM	4812	3	75.5	*****	30	92.	27	58.	3	.0	******	316.0	******	4.051	30	*****	1.78	6
LENAPAH	5118	3	*****	*****	0	****	0	****	0	******	******	******	******	3.760	30	*****	1.40	7
MANNFORD 6 NW	5522	3	77.9	*****	30	94.	25	62.	4	.0	******	388.0	******	3.800	30	-.08	1.11	6
MARAMEC	5540	3	*****	*****	0	****	0	****	0	******	******	******	******	3.210	30	-.69	.72	6
MIAMI	5855	3	77.1	.9	30	92.	28	59.	7	.0	-7.0	361.5	18.5	2.941	30	-1.94	1.25	16
NOWATA	6485	3	78.1	1.6	30	95.	27	62.	10	.0	.0	392.0	43.0	4.581	30	-.20	1.78	8
ONETA 1 WNW	6713	3	*****	*****	0	****	0	****	0	******	******	******	******	2.692	30	*****	1.15	6
PAWHUSKA	6935	3	76.6	.0	30	91.	27	61.	4	.0	.0	348.5	.5	8.113	30	3.80	4.00	5
PAWNEE	6940	3	*****	*****	0	****	0	****	0	******	******	******	******	4.420	30	.40	2.20	22
PRYOR 6 N	7309	3	76.9	.5	30	92.	28	61.	9	.0	.0	357.5	10.5	2.611	30	-2.06	1.15	6
RALSTON	7390	3	78.8	*****	30	94.	21	61.	4	.0	******	413.0	******	4.331	30	-.06	1.15	22
RAMONA 4 N	7394	3	*****	*****	0	****	0	****	0	******	******	******	******	5.630	30	*****	2.40	4
SKIATOOK	8258	3	*****	*****	0	****	0	****	0	******	******	******	******	3.510	30	-.80	1.12	6
SPAVINAW	8380	3	79.0	*****	30	93.	28	62.	7	.0	******	421.0	******	1.521	30	-3.26	.92	6
TULSA WSO APT	8992	3	80.5	2.8	30	95.	25	66.	11	.0	.0	464.5	83.5	3.625	30	-.95	1.30	8
UPPER SPAVINAW	9101	3	79.6	*****	30	97.	25	61.	7	.0	******	437.0	******	1.511	30	*****	.90	6
VINITA 2 N	9203	3	78.0	2.0	30	94.	26	58.	8	.0	-7.0	391.0	54.0	1.200	30	-3.67	.56	8
WAGONER	9247	3	78.2	1.0	30	91.	26	63.	7	.0	.0	395.5	29.5	3.681	30	-1.41	1.64	8
WANN	9298	3	*****	*****	0	****	0	****	0	******	******	******	******	3.660	30	*****	2.09	16
WYNONA	9792	3	*****	*****	0	****	0	****	0	******	******	******	******	4.701	30	*****	1.90	5

JUNE 1991 SUMMARY FOR WEST CENTRAL DIVISION (CD4)

NAME	ID	CD	MEAN TEMP	DEV FROM NORM	NUM OBS	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
CANTON DAM	1445	4	76.8	-.9	30	97.	15	52.	3	1.0	1.0	354.5	-26.5	1.870	30	-1.83	.97	2
CHEYENNE	1738	4	*****	*****	0	****	0	****	0	******	******	******	******	3.800	30	*****	2.09	22
CLINTON	1909	4	80.0	1.6	30	100.	25	59.	3	.0	.0	449.0	47.0	2.711	30	-.64	1.03	2
COLONY	2039	4	*****	*****	0	****	0	****	0	******	******	******	******	2.940	30	*****	1.37	2
CORDELL	2125	4	*****	*****	0	****	0	****	0	******	******	******	******	3.161	30	.09	1.03	2
ELK CITY 1 E	2849	4	77.4	*****	28	****	1	59.	4	.0	******	348.0	******	4.602	30	1.28	1.13	7
ERICK 4 E	2944	4	76.8	-.9	30	95.	28	55.	3	.0	.0	354.0	-31.0	3.602	30	.63	1.20	6
GEARY	3497	4	76.3	-1.5	30	94.	30	59.	4	.0	.0	340.5	-43.5	2.900	30	-.91	2.50	2
HAMMON 1 NNE	3871	4	76.1	-2.0	30	95.	29	57.	3	2.5	-3.5	334.5	-64.5	4.520	30	1.56	2.25	23
MACKIE 4 NNW	5463	4	*****	*****	0	****	0	****	0	******	******	******	******	2.250	30	*****	.67	15
MORAVIA 2 NNE	6035	4	*****	*****	0	****	0	****	0	******	******	******	******	2.971	30	-.02	.78	3
OKEENE	6629	4	78.6	-.4	30	97.	18	59.	4	.0	.0	409.0	-11.0	2.220	30	-1.75	1.84	2
RETROP	7565	4	*****	*****	0	****	0	****	0	******	******	******	******	3.500	30	*****	.78	3
REYDON	7579	4	76.4	*****	30	96.	14	58.	3	.0	******	342.5	******	3.670	30	.36	1.47	6
SAYRE	7952	4	*****	*****	0	****	0	****	0	******	******	******	******	3.191	30	.02	.73	3
SWEETWATER 2 E	8652	4	*****	*****	0	****	0	****	0	******	******	******	******	1.880	31	*****	.79	2
TALOGA	8708	4	77.8	.3	29	97.	14	57.	3	.0	.0	371.5	-3.5	3.212	29	*****	1.49	2
THOMAS	8815	4	*****	*****	0	****	0	****	0	******	******	******	******	2.970	30	*****	1.75	2
VICI	9172	4	*****	*****	0	****	0	****	0	******	******	******	******	3.890	30	*****	1.40	2
WATONGA	9364	4	78.8	*****	30	96.	28	62.	1	.0	******	414.0	******	2.450	30	-1.32	.97	2
WEATHERFORD	9422	4	78.7	.4	30	98.	26	60.	3	.0	.0	411.5	12.5	2.591	30	-1.04	1.08	2

JUNE 1991 SUMMARY FOR CENTRAL 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	******	******	******	******	3.740	30	*****	2.44	2
TINKER AFB	325	5	*****	0	*****	****	0	****	0	******	******	******	******	4.352	30	*****	1.52	2
BLANCHARD 2 SSW	830	5	77.3	30	*****	92.	22	60.	4	.0	******	369.0	******	4.050	30	*****	1.73	23
BRISTOW	1144	5	77.3	30	.1	92.	26	60.	6	.0	.0	369.5	3.5	5.590	30	1.23	2.66	6
CHANDLER	1684	5	77.9	28	*****	93.	25	62.	20	.0	******	362.0	******	2.100	29	*****	.80	2
CHICKASHA EX ST	1750	5	78.5	30	-.3	96.	27	59.	4	.0	.0	404.5	-9.5	3.802	30	.71	2.29	2
COX CITY 1 E	2196	5	*****	0	*****	****	0	****	0	******	******	******	******	5.510	30	*****	2.00	6
CRESCENT	2242	5	*****	0	*****	****	0	****	0	******	******	******	******	2.800	30	*****	1.43	2
CUSHING	2318	5	77.1	28	*****	92.	28	56.	4	.0	******	339.0	******	1.790	28	*****	.74	8
EL RENO 1 N	2818	5	78.0	30	.6	94.	30	60.	4	.0	.0	389.0	17.0	2.820	30	-.81	1.00	2
GUTHRIE	3821	5	79.7	30	1.8	96.	30	60.	4	.0	.0	442.0	55.0	3.793	30	-.17	1.52	24
INGALLS	4489	5	*****	0	*****	****	0	****	0	******	******	******	******	2.141	30	*****	.84	2
KINGFISHER 2 SE	4861	5	78.7	30	.1	98.	22	60.	4	.0	.0	409.5	1.5	3.160	30	-.60	1.60	24
KONAWA	4915	5	*****	0	*****	****	0	****	0	******	******	******	******	5.820	30	2.10	2.19	2
MARSHALL	5589	5	*****	0	*****	****	0	****	0	******	******	******	******	1.200	30	-2.80	.73	24
MEEKER 4 W	5779	5	77.0	30	-.2	98.	6	62.	11	.0	.0	360.0	-6.0	3.980	30	.28	1.24	1
MULHALL	6110	5	*****	0	*****	****	0	****	0	******	******	******	******	2.470	30	*****	1.18	2
NORMAN 3 S	6386	5	78.6	30	*****	96.	18	61.	4	.0	******	409.0	******	9.291	30	5.67	6.66	23
OILTON 2 SE	6616	5	*****	0	*****	****	0	****	0	******	******	******	******	3.080	30	*****	1.08	5
OKEMAH	6638	5	78.7	30	1.6	95.	22	62.	9	.0	.0	411.0	48.0	5.960	30	1.49	1.77	2
OKLAHOMA CTY WS	6661	5	78.5	30	1.5	93.	30	61.	4	.0	.0	404.0	44.0	3.851	30	-.02	1.53	2
PERKINS	7003	5	*****	0	*****	****	0	****	0	******	******	******	******	2.630	30	-1.54	1.19	8
PIEDMONT	7068	5	*****	0	*****	****	0	****	0	******	******	******	******	2.820	30	*****	1.02	2
PRAGUE	7264	5	*****	0	*****	****	0	****	0	******	******	******	******	6.771	30	2.99	2.54	8
PURCELL 5 SW	7327	5	77.3	30	-.7	93.	30	57.	4	.0	.0	368.0	-22.0	2.782	30	-.81	.75	2
SEMINOLE	8042	5	78.6	30	.1	95.	21	62.	9	.0	.0	407.5	2.5	5.730	30	1.93	1.10	8
SHAWNEE	8110	5	*****	0	*****	****	0	****	0	******	******	******	******	6.480	30	2.53	1.75	23
STELLA	8479	5	*****	0	*****	****	0	****	0	******	******	******	******	4.120	30	*****	1.47	25
STILLWATER 2 W	8501	5	78.2	30	1.2	96.	23	62.	11	.0	.0	395.5	35.5	4.000	30	.08	1.10	8
STROUD 1 N	8563	5	*****	0	*****	****	0	****	0	******	******	******	******	4.741	30	*****	1.18	8
TECUMSEH	8751	5	*****	0	*****	****	0	****	0	******	******	******	******	4.931	30	*****	1.70	8
TROUSDALE	8960	5	*****	0	*****	****	0	****	0	******	******	******	******	3.700	30	*****	1.47	8
UNION CITY 1 SE	9086	5	*****	0	*****	****	0	****	0	******	******	******	******	3.570	30	-.64	2.42	2
WELTY 1 SSE	9479	5	*****	0	*****	****	0	****	0	******	******	******	******	7.391	30	*****	3.25	6
WEWOKA	9575	5	*****	0	*****	****	0	****	0	******	******	******	******	6.290	30	2.08	2.46	8

JUNE 1991 SUMMARY FOR EAST CENTRAL 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	******	******	******	******	9.370	30	*****	2.61	16
BEGGS	631	6	*****	0	*****	****	0	****	0	******	******	******	******	3.410	30	*****	1.41	3
BOYNTON	1027	6	*****	0	*****	****	0	****	0	******	******	******	******	7.930	30	*****	3.80	23
CALVIN	1391	6	*****	0	*****	****	0	****	0	******	******	******	******	4.692	30	.16	1.25	6
CHECOTAH	1711	6	*****	0	*****	****	0	****	0	******	******	******	******	4.331	30	.28	1.33	8
CLAYTON 11 WNW	1858	6	*****	0	*****	****	0	****	0	******	******	******	******	2.510	30	*****	1.05	8
DEWAR 2 NE	2485	6	*****	0	*****	****	0	****	0	******	******	******	******	5.710	30	1.64	1.38	24
DUSTIN	2690	6	*****	0	*****	****	0	****	0	******	******	******	******	4.700	30	*****	1.64	8
EUFAULA	2993	6	79.5	30	*****	94.	22	65.	9	.0	******	434.5	******	3.930	30	-.19	1.70	23
HANNA	3884	6	77.7	30	*****	92.	27	60.	9	.0	******	380.5	******	6.400	30	2.41	1.46	8
HARTSHORNE	3946	6	*****	0	*****	****	0	****	0	******	******	******	******	3.440	30	*****	.96	23
HASKELL	3956	6	*****	0	*****	****	0	****	0	******	******	******	******	5.900	30	1.08	2.72	23
HOLDENVILLE	4235	6	77.1	30	-.4	92.	22	61.	9	.0	.0	363.5	-11.5	6.490	30	2.66	1.94	3
LAKE EUFAULA	4975	6	78.5	30	*****	95.	23	63.	9	.0	******	404.5	******	4.370	30	*****	1.51	23
LYONS 2 N	5437	6	*****	0	*****	****	0	****	0	******	******	******	******	1.811	30	-2.65	.55	22
MARBLE CITY	5546	6	*****	0	*****	****	0	****	0	******	******	******	******	2.061	30	*****	1.20	2
MCALESTER FAA	5664	6	78.4	30	.6	93.	22	62.	4	.0	.0	401.0	17.0	4.041	30	.38	.90	23
MCCURTAIN 1 SE	5693	6	79.2	30	*****	98.	22	62.	9	.0	******	425.5	******	3.461	30	-.82	1.03	16
MUSKOGEE	6130	6	78.5	30	1.0	92.	21	61.	22	.0	.0	406.0	31.0	5.080	30	.48	1.80	22
OKMULGEE W W	6670	6	76.6	30	-.7	93.	26	60.	9	.0	.0	347.0	-22.0	4.200	30	-.51	1.08	2
OKTAHA 2 NE	6678	6	*****	0	*****	****	0	****	0	******	******	******	******	5.830	30	*****	2.64	8
QUINTON	7372	6	*****	0	*****	****	0	****	0	******	******	******	******	3.400	30	-.63	.94	8
SALLISAW 2 NE	7862	6	79.4	30	2.0	98.	22	64.	9	.0	.0	431.5	59.5	6.021	30	1.69	3.21	22
SCIPIO	7979	6	*****	0	*****	****	0	****	0	******	******	******	******	5.860	30	*****	1.35	16
SCRAPER	7993	6	*****	0	*****	****	0	****	0	******	******	******	******	.530	30	*****	.33	2
SHORT	8170	6	*****	0	*****	****	0	****	0	******	******	******	******	3.231	30	*****	.85	23
STILWELL 1 NE	8506	6	76.7	30	*****	91.	21	58.	7	.0	******	351.5	******	3.025	30	-1.46	.95	17
TAHLEQUAH	8677	6	78.3	30	2.2	95.	26	62.	9	.0	.0	397.5	64.5	.903	30	-3.73	.53	6
WEBBERS FALLS	9445	6	78.0	30	.9	95.	23	63.	9	.0	.0	391.0	28.0	3.490	30	-.60	1.46	23
WESTVILLE	9523	6	*****	0	*****	****	0	****	0	******	******	******	******	1.730	30	*****	.57	18
WETUMKA 3 NE	9571	6	*****	0	*****	****	0	****	0	******	******	******	******	8.561	30	4.24	2.86	8

JUNE 1991 SUMMARY FOR SOUTHWEST 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 IRR STA	179	7	79.4	30	-1.1	99.	26	58.	2	.0	.0	433.0	-32.0	11.040	30	8.10	5.87	2
ALTUS DAM	184	7	79.3	30	*****	98.	29	59.	3	1.5	******	431.0	******	7.430	30	3.95	1.87	2
APACHE	260	7	*****	0	*****	****	0	****	0	******	******	******	******	4.240	30	*****	1.50	1
ALTUS AFB	447	7	*****	0	*****	****	0	****	0	******	******	******	******	7.702	29	*****	4.25	2
CHATTANOOGA	1706	7	79.7	29	-.2	97.	28	60.	4	.0	.0	426.5	-20.5	4.550	30	1.75	1.11	3
DUNCAN 12 W	2668	7	*****	0	*****	****	0	****	0	******	******	******	******	4.430	30	*****	1.20	13
FREDERICK	3353	7	77.5	29	-3.5	96.	26	60.	4	1.5	1.5	363.5	-116.5	7.020	29	*****	2.88	2
GRANDFIELD 4 NW	3709	7	*****	0	*****	****	0	****	0	******	******	******	******	4.220	30	1.04	1.02	9
HOBART FAA APT	4204	7	78.3	29	-.6	98.	26	59.	4	1.0	1.0	386.0	-31.0	4.584	29	*****	1.85	2
HOLLIS	4249	7	77.7	28	*****	98.	14	56.	3	.0	******	356.0	******	5.560	28	*****	1.48	1
LAWTON	5063	7	78.5	29	-.5	97.	25	58.	4	.0	.0	390.5	-29.5	4.571	29	*****	1.60	2
FORT SILL	5068	7	77.9	30	*****	95.	30	61.	4	.0	******	388.0	******	3.012	30	-.56	1.66	2
LOOKEBA 2 ENE	5329	7	*****	0	*****	****	0	****	0	******	******	******	******	6.190	30	*****	3.65	2
MANGUM RES STA	5509	7	78.6	30	-1.2	99.	26	56.	2	.0	.0	407.5	-36.5	8.130	30	5.28	3.02	2
RANDLETT 9 E	7403	7	*****	0	*****	****	0	****	0	******	******	******	******	3.380	30	*****	.88	13
ROOSEVELT	7727	7	*****	0	*****	****	0	****	0	******	******	******	******	7.630	30	4.34	3.92	2
SEDAN	8016	7	*****	0	*****	****	0	****	0	******	******	******	******	7.600	30	*****	5.28	3
SNYDER	8299	7	*****	0	*****	****	0	****	0	******	******	******	******	11.202	30	8.32	5.41	2
VINSON 3 WNW	9212	7	*****	0	*****	****	0	****	0	******	******	******	******	3.280	30	.45	1.18	3
WALTERS	9278	7	79.0	30	-1.0	98.	24	60.	4	.0	.0	419.0	-31.0	3.260	30	-.33	1.10	2
WICHITA MT WLR	9629	7	75.6	30	-2.1	93.	29	57.	4	.0	.0	317.5	-63.5	7.742	30	4.28	3.87	2
WILLOW	9668	7	*****	0	*****	****	0	****	0	******	******	******	******	3.830	30	*****	1.02	7

JUNE 1991 SUMMARY FOR SOUTH CENTRAL DIVISION (CD8)

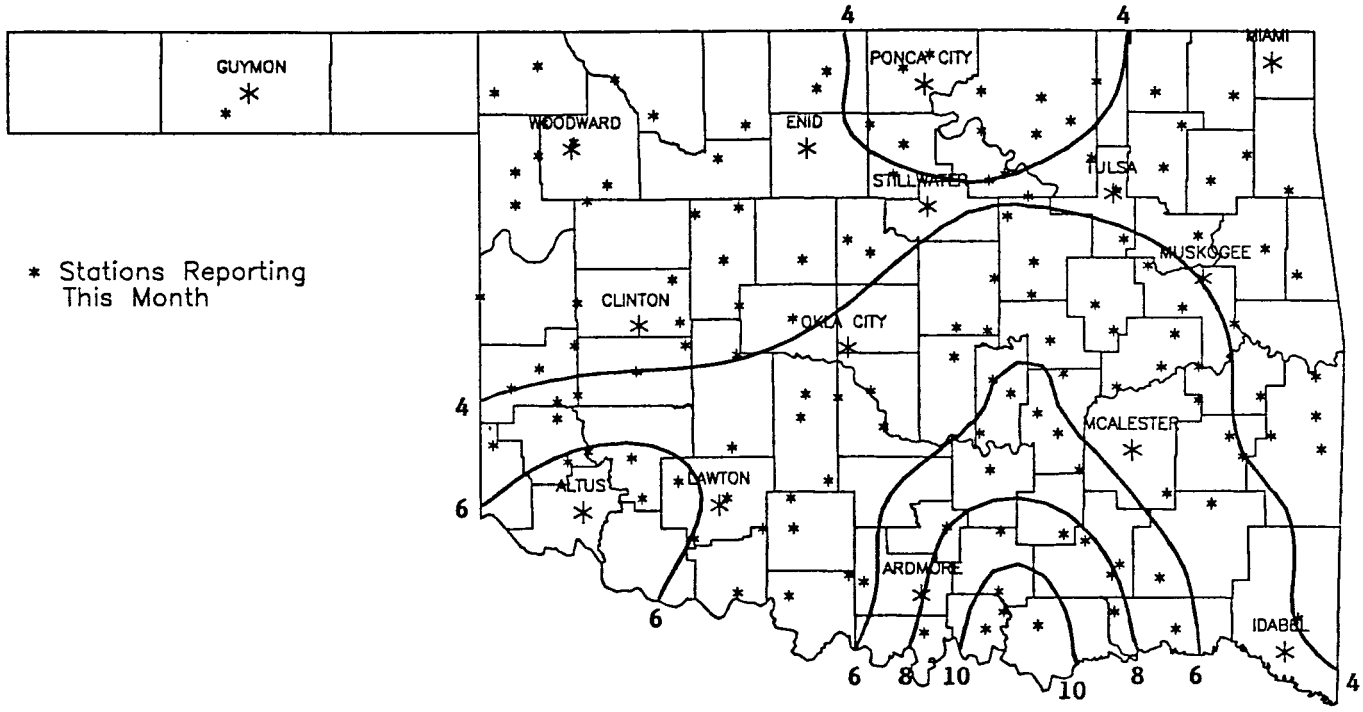
NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ADA	17	8	77.0	30	-.7	92.	22	62.	4	.0	.0	359.5	-21.5	5.420	30	1.69	1.30	8
ALLEN	147	8	*****	0	*****	****	0	****	0	******	******	******	******	12.350	30	*****	5.10	8
ARDMORE	292	8	78.7	30	-1.6	93.	23	61.	4	.0	.0	411.5	-47.5	4.502	30	1.23	2.55	3
ATOKA DAM	394	8	78.9	30	*****	97.	29	62.	2	.0	******	416.0	******	7.230	30	*****	3.00	10
BOKCHITO	917	8	*****	0	*****	****	0	****	0	******	******	******	******	7.770	30	*****	2.00	8
CANEY	1437	8	79.6	30	*****	98.	20	62.	9	.0	******	437.5	******	10.570	30	*****	2.55	9
CENTRAHOMA	1648	8	*****	0	*****	****	0	****	0	******	******	******	******	10.500	30	*****	3.60	8
CHICKASAW NRA	1745	8	77.3	30	*****	97.	26	58.	4	.0	******	368.5	******	9.580	30	*****	2.93	9
COLEMAN	2011	8	*****	0	*****	****	0	****	0	******	******	******	******	10.950	30	*****	3.66	8
COMANCHE	2054	8	*****	0	*****	****	0	****	0	******	******	******	******	4.600	30	*****	1.52	3
DAISY 4 ENE	2354	8	*****	0	*****	****	0	****	0	******	******	******	******	5.900	30	1.42	1.54	8
DUNCAN	2660	8	77.8	30	-1.2	95.	24	59.	4	.0	.0	385.5	-34.5	5.670	30	2.21	1.38	2
DURANT USDA	2678	8	78.2	30	*****	94.	23	61.	4	.0	******	395.0	******	12.520	30	8.80	5.60	9
ELMORE CITY	2872	8	*****	0	*****	****	0	****	0	******	******	******	******	3.780	30	*****	1.10	8
FARRIS 3 WNW	3083	8	*****	0	*****	****	0	****	0	******	******	******	******	5.870	30	*****	2.08	8
GRADY	3688	8	*****	0	*****	****	0	****	0	******	******	******	******	3.860	30	*****	1.15	9
HEALDTON	4001	8	79.1	30	*****	96.	22	57.	2	.0	******	421.5	******	3.070	30	-.64	1.03	8
HENNEPIN	4052	8	*****	0	*****	****	0	****	0	******	******	******	******	5.020	30	*****	2.24	8
KETCHUM RANCH	4780	8	*****	0	*****	****	0	****	0	******	******	******	******	5.940	30	*****	2.00	2
KINGSTON	4865	8	*****	0	*****	****	0	****	0	******	******	******	******	14.810	30	11.19	7.50	8
LEHIGH	5108	8	*****	0	*****	****	0	****	0	******	******	******	******	11.361	30	*****	3.30	23
LINDSAY 2 W	5216	8	76.0	20	*****	91.	20	57.	4	.0	******	220.0	******	3.020	20	*****	.89	6
LOCO 6 SE	5247	8	*****	0	*****	****	0	****	0	******	******	******	******	2.660	30	*****	1.10	3
MADILL	5468	8	78.3	30	-.6	97.	23	62.	4	.0	.0	398.5	-18.5	16.960	30	13.11	6.40	7
MARIETTA	5563	8	79.0	30	.3	94.	22	63.	6	.0	.0	419.0	8.0	6.950	30	3.32	1.90	6
MARLOW 1 WSW	5581	8	78.4	30	*****	95.	28	57.	4	.0	******	401.5	******	4.890	30	1.07	1.45	13
MCGEE CREEK DAM	5713	8	78.4	30	*****	94.	28	64.	6	.0	******	402.5	******	6.530	30	*****	2.40	8
PAULS VALLEY	6926	8	77.8	30	-1.8	94.	24	57.	4	.0	.0	382.5	-52.5	3.761	30	.39	1.35	8
PONTOTOC	7214	8	*****	0	*****	****	0	****	0	******	******	******	******	11.990	30	8.44	2.57	15
TISHOMINGO NWLR	8884	8	79.4	27	*****	95.	30	59.	3	.0	******	387.5	******	15.100	30	11.64	5.02	8
TUSSY	9032	8	*****	0	*****	****	0	****	0	******	******	******	******	6.400	30	*****	3.27	3
WAURIKA	9395	8	79.4	30	-.7	97.	27	60.	4	.0	.0	433.5	-19.5	3.430	30	.18	1.26	9
WAURIKA DAM	9399	8	78.5	29	*****	95.	29	60.	4	.0	******	392.0	******	3.820	29	*****	.95	13

JUNE 1991 SUMMARY FOR SOUTHEAST DIVISION (CD9)

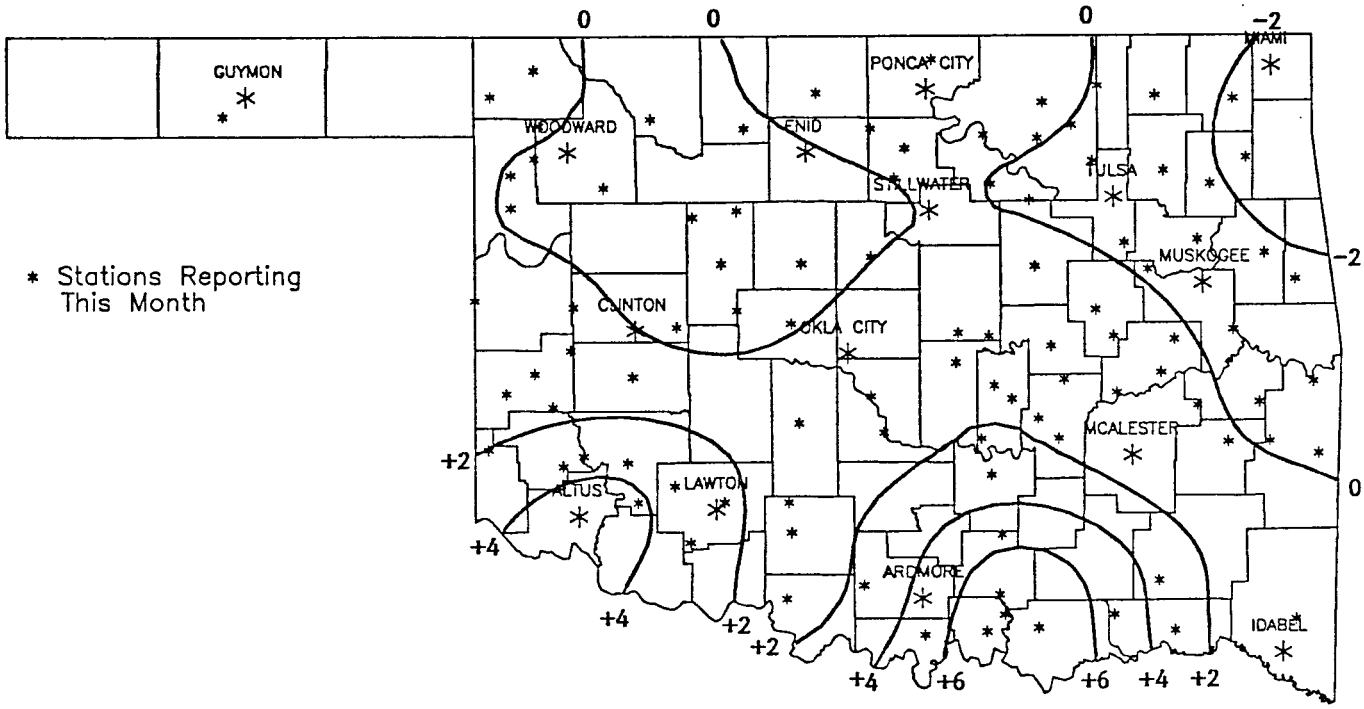
NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ANTLERS	256	9	78.0	30	.5	93.	22	63.	9	.0	.0	391.0	16.0	8.470	30	4.50	2.00	16
BATTIEST 1 SSW	567	9	75.6	30	*****	92.	30	58.	9	.0	******	318.5	******	2.750	30	*****	1.32	2
BENGAL	670	9	*****	0	*****	****	0	****	0	******	******	******	******	4.291	30	*****	1.76	23
BOSWELL 4 NNW	980	9	79.7	30	*****	96.	19	63.	9	.0	******	440.5	******	7.406	30	3.79	1.71	8
BROKEN BOW 1 N	1162	9	*****	0	*****	****	0	****	0	******	******	******	******	2.250	30	-1.56	1.13	21
BROKEN BOW DAM	1168	9	78.5	30	*****	97.	23	59.	9	.0	******	405.0	******	1.690	30	*****	.86	23
CARNASAW TWR	1499	9	*****	0	*****	****	0	****	0	******	******	******	******	3.690	30	-.34	1.65	23
CARTER TWR	1544	9	*****	0	*****	****	0	****	0	******	******	******	******	1.190	30	-2.66	.72	23
FANSHAWE	3065	9	*****	0	*****	****	0	****	0	******	******	******	******	1.620	30	-2.59	.72	16
FLAGPOLE TWR	3169	9	*****	0	*****	****	0	****	0	******	******	******	******	6.180	31	*****	1.95	2
HEAVENER 1 SE	4008	9	*****	0	*****	****	0	****	0	******	******	******	******	5.231	30	1.23	2.12	16
HUGO	4384	9	78.5	30	-.2	93.	22	63.	9	.0	.0	406.0	-5.0	5.372	30	.85	1.90	23
POTEAU W W	7254	9	78.3	30	*****	96.	23	58.	8	.0	******	400.5	******	3.030	30	*****	1.78	11
SMITHVILLE 1 W	8285	9	76.5	30	*****	91.	30	56.	8	.0	******	344.0	******	3.750	30	*****	1.75	23
SPIRO	8416	9	*****	0	*****	****	0	****	0	******	******	******	******	3.810	30	.26	1.29	23
TUSKAHOMA	9023	9	78.1	30	*****	93.	22	59.	9	.0	******	392.5	******	3.920	30	*****	1.98	2
VALLIANT 3 W	9118	9	*****	0	*****	****	0	****	0	******	******	******	******	2.100	30	-1.60	1.01	23
WILBURTON 9 ENE	9634	9	78.0	30	1.0	95.	22	60.	9	.0	.0	390.5	30.5	5.203	30	1.26	2.20	22

JUNE 1991 CLIMATE DIVISION SUMMARY

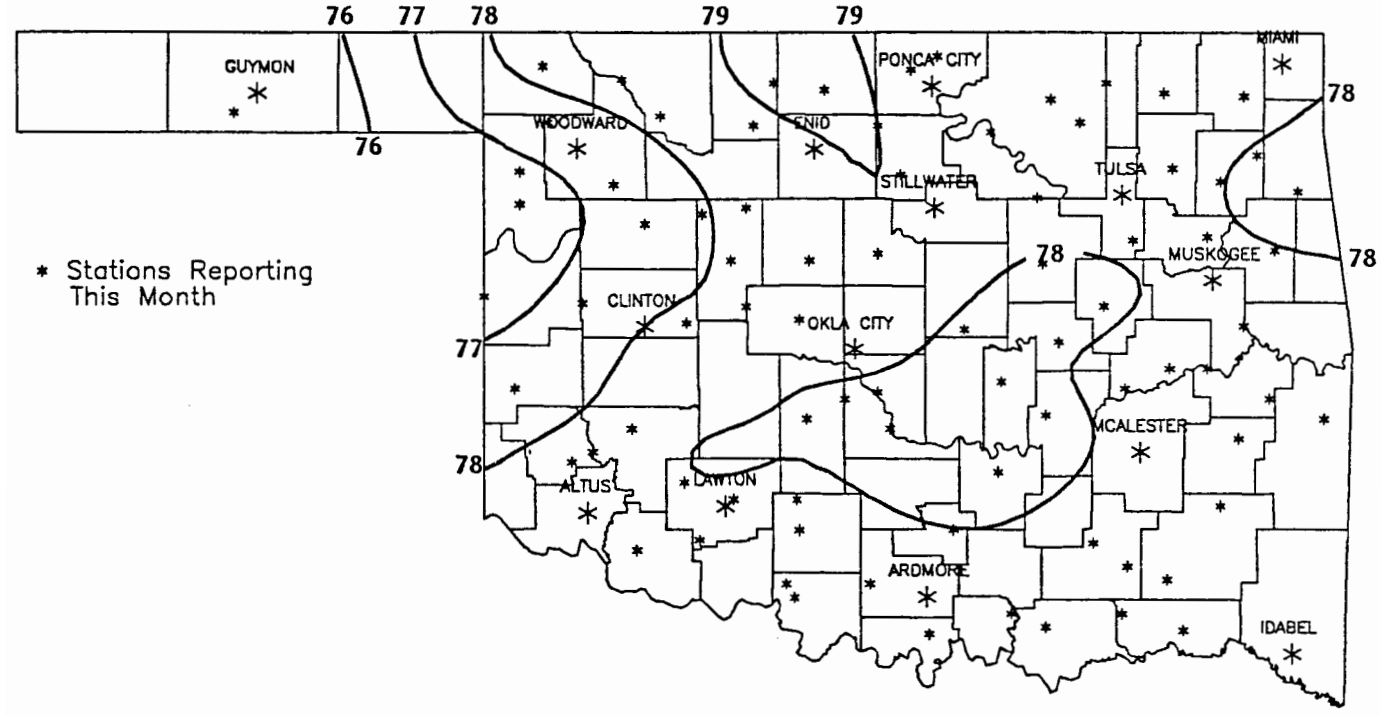
CLIMATE DIV	MEAN TEMP	NUM STA	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEGREE DAYS	DEV FROM NORM	COOL DEGREE DAYS	DEV FROM NORM	TOT PPT	NUM STA	DEV FROM NORM	MAX 24-HR	DAY
1	75.7	12	.2	104.0	14	50.0	2	.6	-7.9	321.8	-3.5	2.68	13	-.01	1.95	2
2	78.9	15	.9	100.0	29	56.0	3	.0	-1.3	414.4	24.7	3.69	20	-.19	3.06	2
3	77.9	18	1.3	97.0	25	57.0	7	.0	-1.3	387.1	36.7	3.77	31	-.69	4.00	5
4	77.6	10	-.4	100.0	25	52.0	3	.3	-.4	378.1	-15.0	3.08	20	-.29	2.50	2
5	78.2	13	.6	98.0	6	56.0	4	.0	.0	395.3	16.2	4.34	33	.44	6.66	23
6	78.1	12	.9	98.0	22	58.0	7	.0	.0	394.5	27.2	4.40	31	.12	3.80	23
7	78.4	10	-1.4	99.0	26	56.0	2	.4	.4	396.3	-46.4	5.95	17	2.80	5.87	2
8	78.4	15	-.8	98.0	20	57.0	4	.0	.0	401.6	-23.5	7.74	31	4.12	7.50	8
9	77.9	9	.2	97.0	23	56.0	8	.0	.0	387.6	5.6	4.00	18	.07	2.20	22



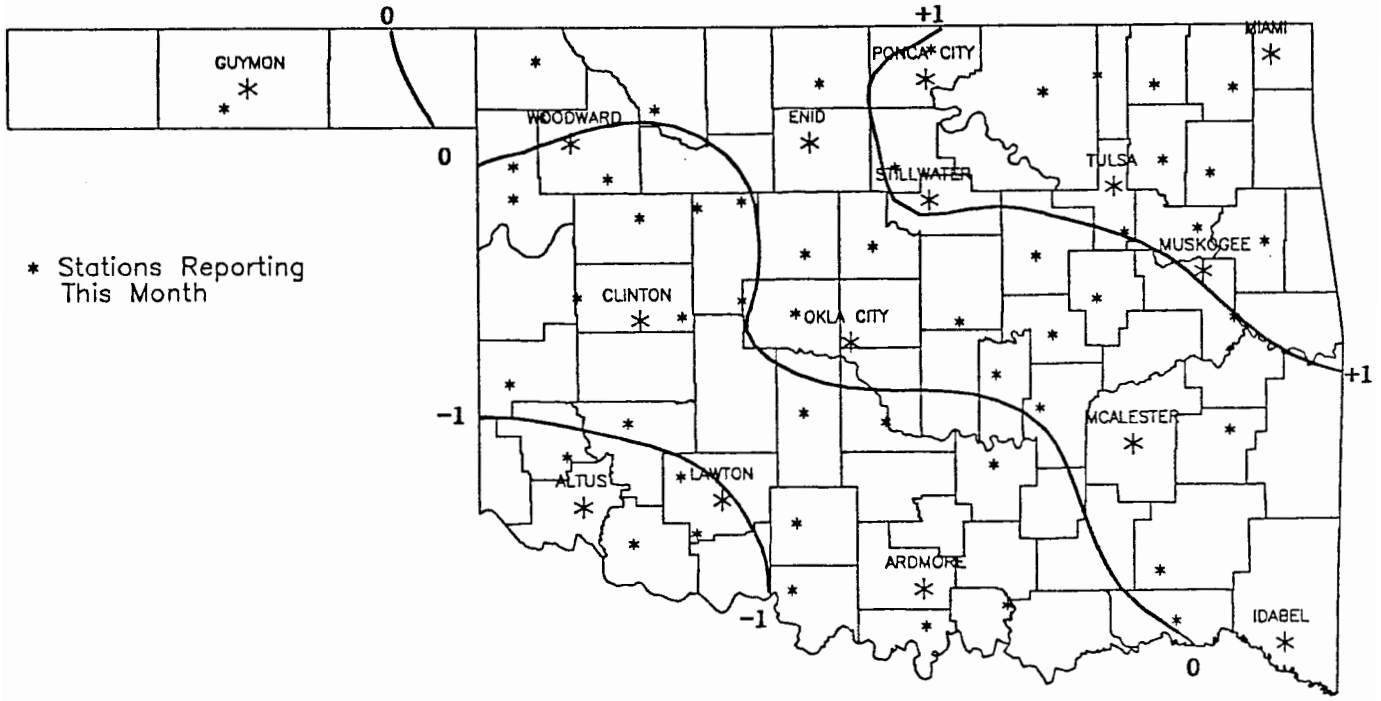
JUNE 1991 TOTAL PRECIPITATION
(Inches)



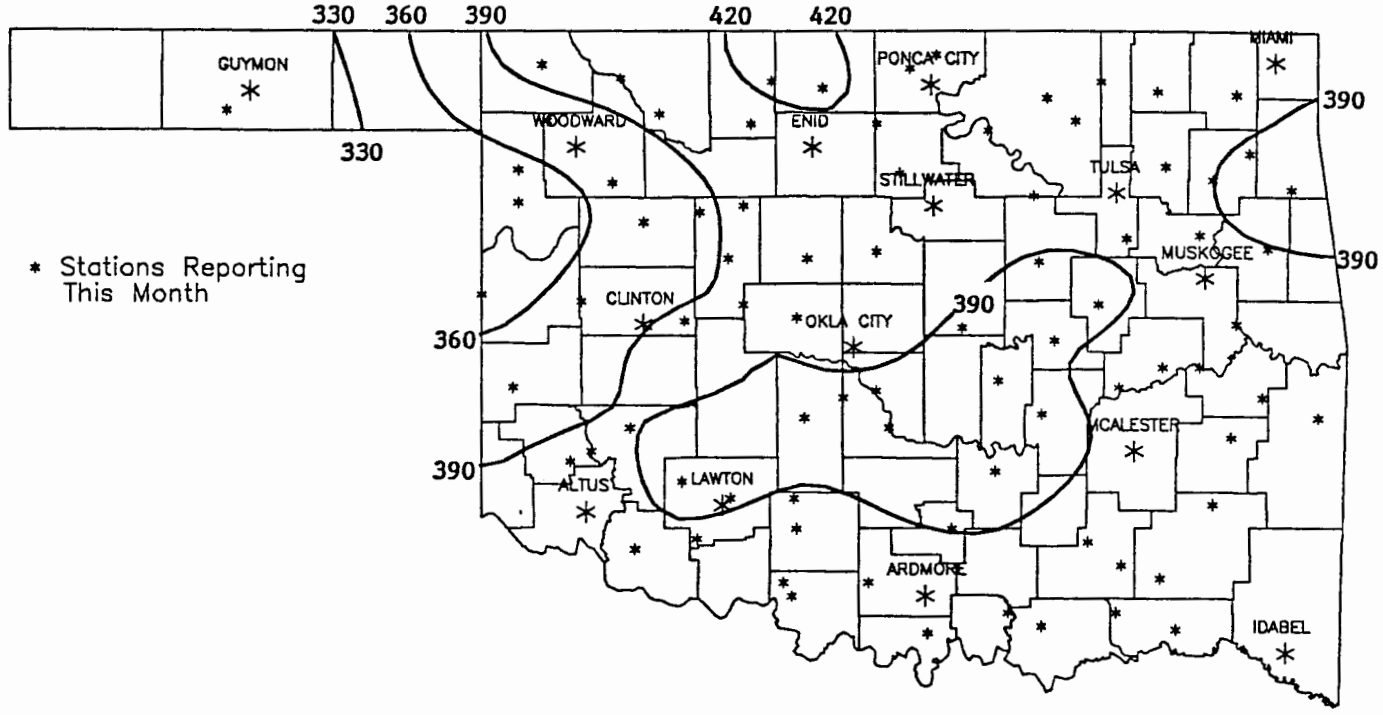
JUNE 1991 DEVIATION FROM NORMAL PRECIPITATION
(Inches)



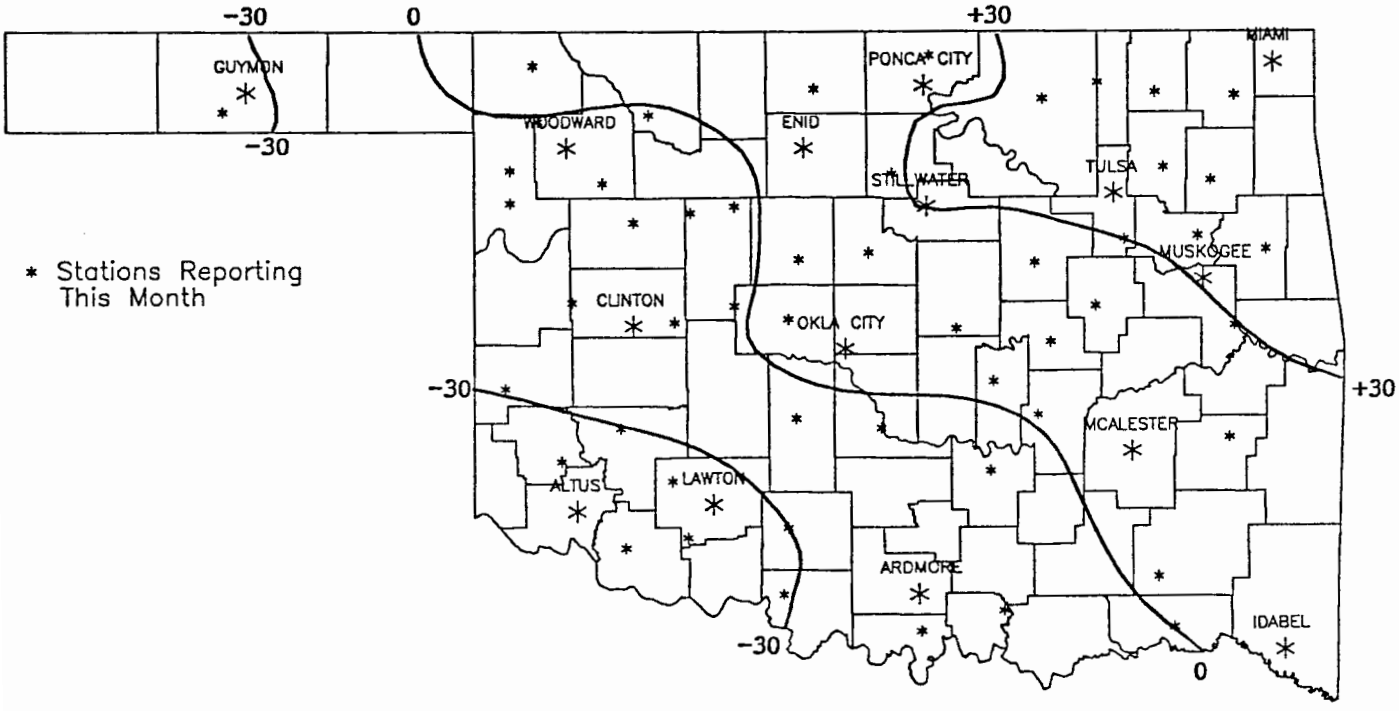
JUNE 1991 AVERAGE MONTHLY TEMPERATURES
(Degrees F)



JUNE 1991 DEVIATION FROM NORMAL TEMPERATURES
(Degrees F)

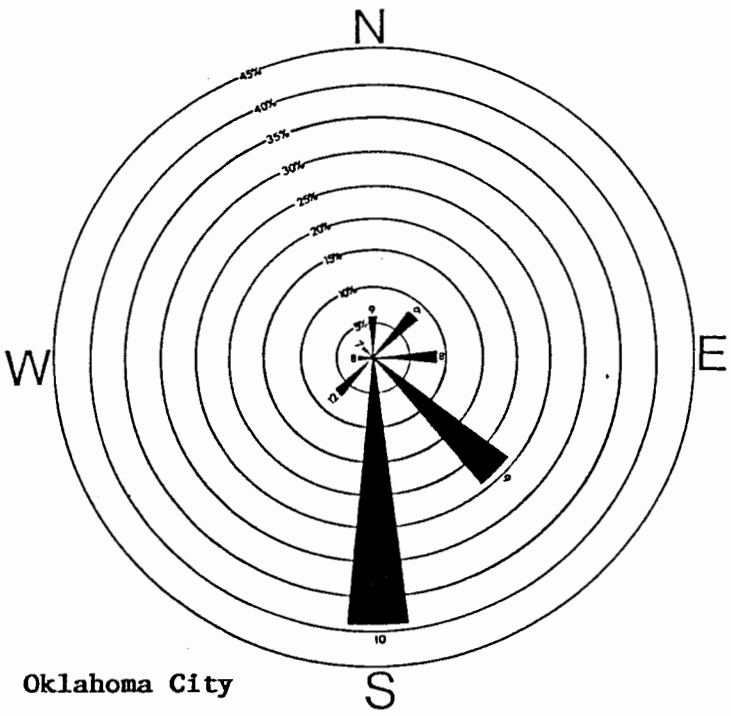


JUNE 1991 COOLING DEGREE DAYS

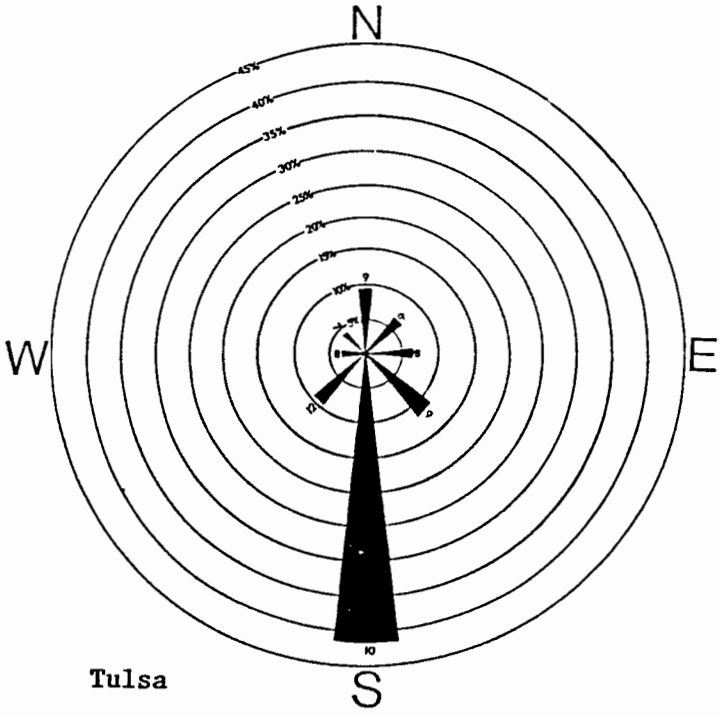


JUNE 1991 DEVIATION FROM NORMAL COOLING DEGREE DAYS

August wind roses for Oklahoma City and Tulsa for 10-year (1965-1974) mean winds (data adapted from NOAA Airport Climatology Series). Percents represent the percentages for winds coming from a direction. The numbers at the end of the bars indicate the average speed (miles per hour) of winds from that direction.



Oklahoma City



Tulsa

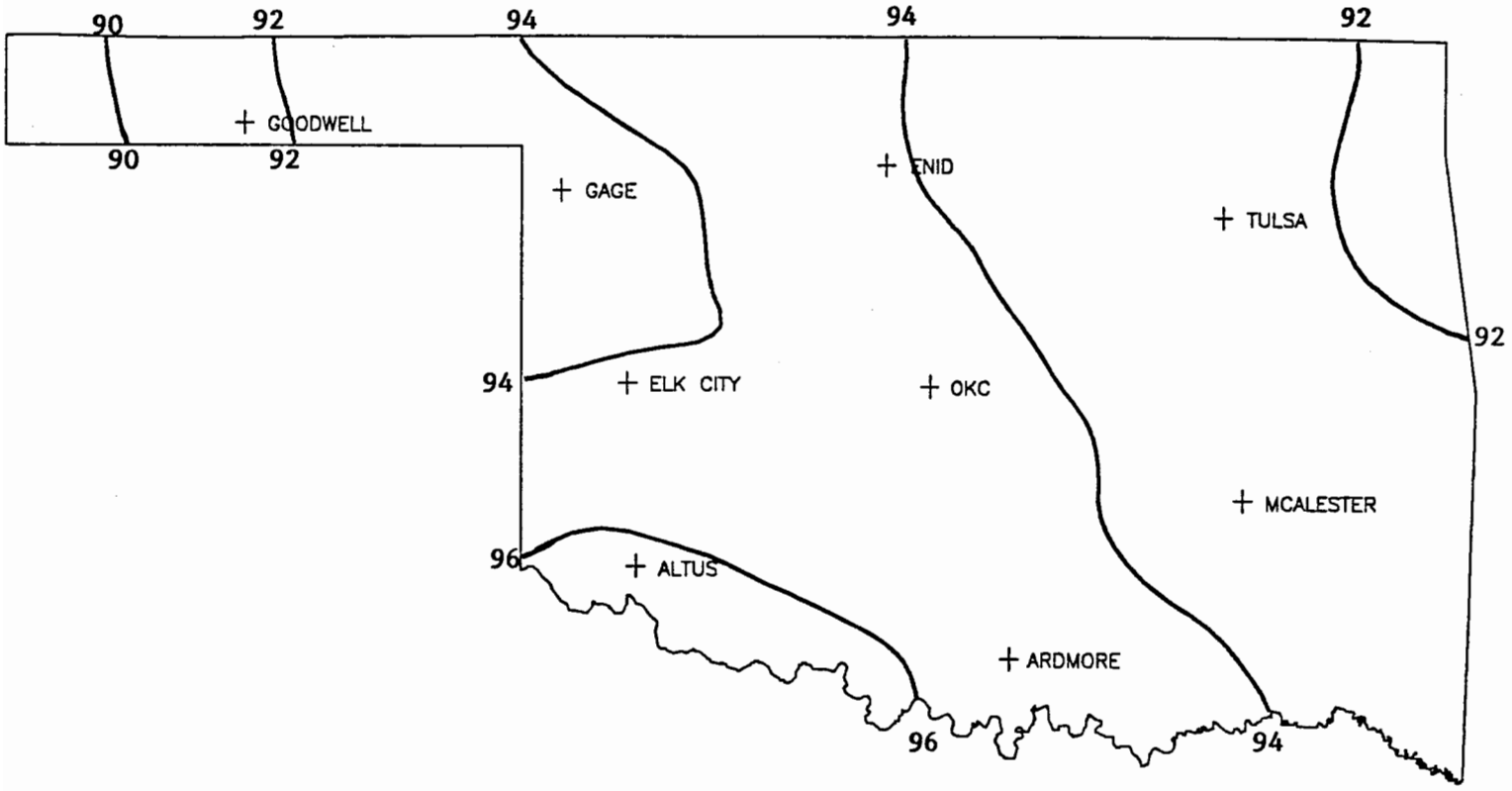
AUGUST 1991 SUNRISE AND SUNSET

Oklahoma City

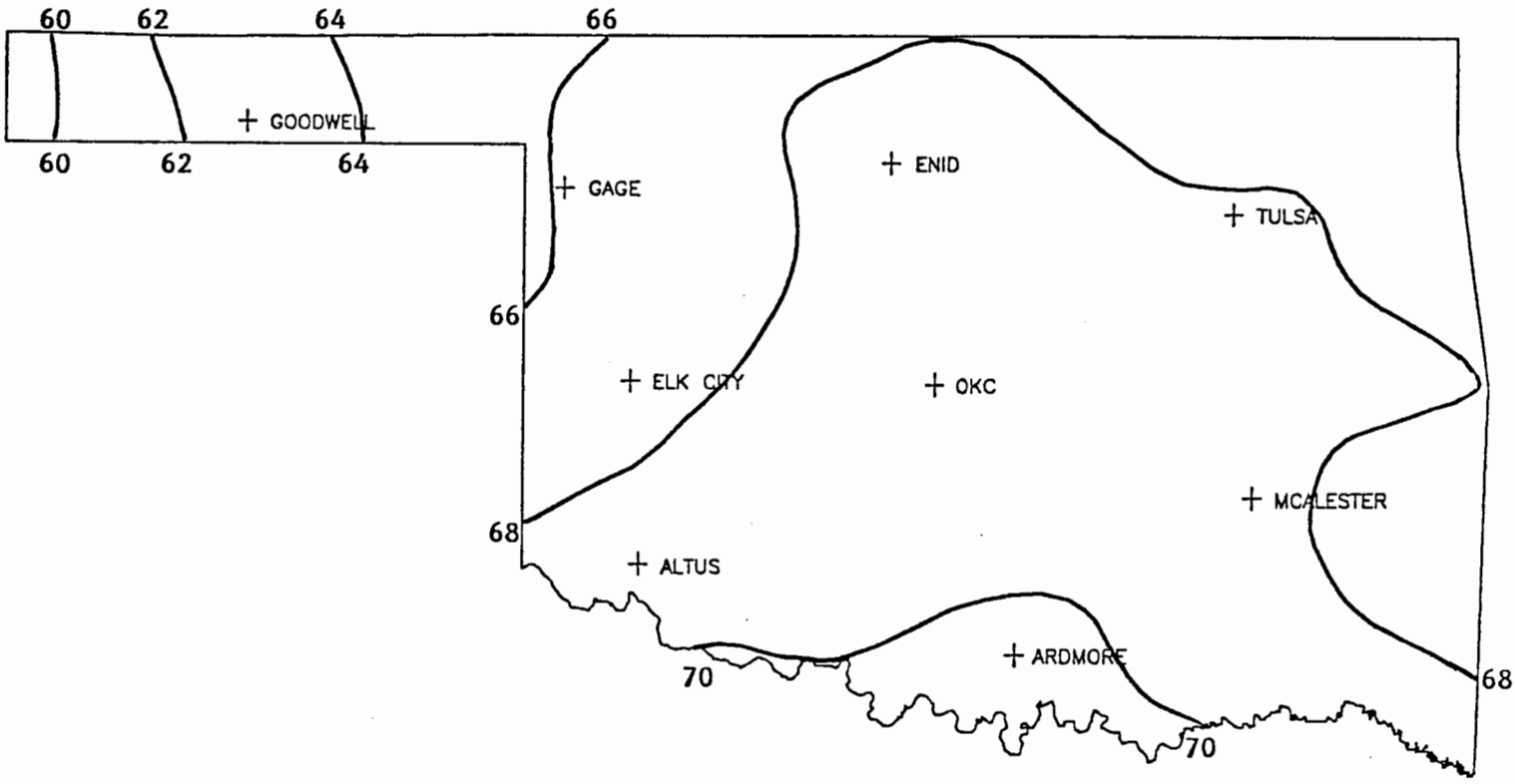
DATE	SUNRISE	SUNSET	DAYLIGHT
910801	6:39AM	8:34PM LT	13:55
910802	6:40AM	8:34PM LT	13:54
910803	6:41AM	8:33PM LT	13:52
910804	6:41AM	8:32PM LT	13:51
910805	6:42AM	8:31PM LT	13:49
910806	6:43AM	8:30PM LT	13:47
910807	6:43AM	8:29PM LT	13:46
910808	6:44AM	8:28PM LT	13:44
910809	6:45AM	8:27PM LT	13:42
910810	6:46AM	8:26PM LT	13:41
910811	6:46AM	8:25PM LT	13:39
910812	6:47AM	8:24PM LT	13:37
910813	6:48AM	8:23PM LT	13:35
910814	6:49AM	8:22PM LT	13:33
910815	6:49AM	8:21PM LT	13:31
910816	6:50AM	8:20PM LT	13:30
910817	6:51AM	8:18PM LT	13:28
910818	6:51AM	8:17PM LT	13:26
910819	6:52AM	8:16PM LT	13:24
910820	6:53AM	8:15PM LT	13:22
910821	6:54AM	8:14PM LT	13:20
910822	6:54AM	8:12PM LT	13:18
910823	6:55AM	8:11PM LT	13:16
910824	6:56AM	8:10PM LT	13:14
910825	6:57AM	8: 9PM LT	13:12
910826	6:57AM	8: 7PM LT	13:10
910827	6:58AM	8: 6PM LT	13: 8
910828	6:59AM	8: 5PM LT	13: 6
910829	6:59AM	8: 3PM LT	13: 4
910830	7: 0AM	8: 2PM LT	13: 2
910831	7: 1AM	8: 1PM LT	12:60

Tulsa

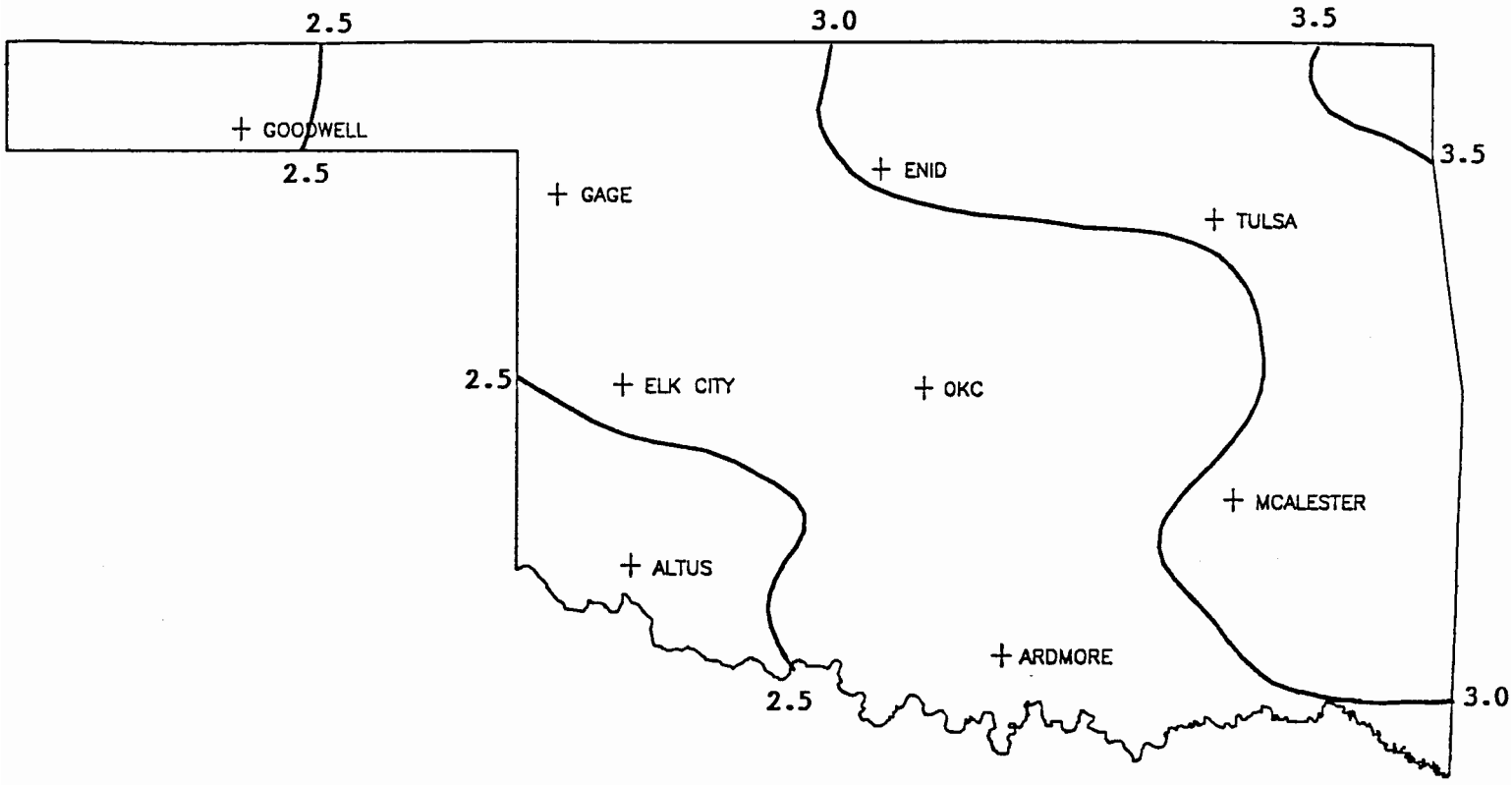
DATE	SUNRISE	SUNSET	DAYLIGHT
910801	6:31AM	8:29PM LT	13:59
910802	6:31AM	8:28PM LT	13:57
910803	6:32AM	8:28PM LT	13:55
910804	6:33AM	8:27PM LT	13:54
910805	6:34AM	8:26PM LT	13:52
910806	6:34AM	8:25PM LT	13:50
910807	6:35AM	8:24PM LT	13:49
910808	6:36AM	8:23PM LT	13:47
910809	6:37AM	8:22PM LT	13:45
910810	6:37AM	8:21PM LT	13:43
910811	6:38AM	8:20PM LT	13:42
910812	6:39AM	8:19PM LT	13:40
910813	6:40AM	8:18PM LT	13:38
910814	6:40AM	8:16PM LT	13:36
910815	6:41AM	8:15PM LT	13:34
910816	6:42AM	8:14PM LT	13:32
910817	6:43AM	8:13PM LT	13:30
910818	6:44AM	8:12PM LT	13:28
910819	6:44AM	8:10PM LT	13:26
910820	6:45AM	8: 9PM LT	13:24
910821	6:46AM	8: 8PM LT	13:22
910822	6:47AM	8: 7PM LT	13:20
910823	6:47AM	8: 5PM LT	13:18
910824	6:48AM	8: 4PM LT	13:16
910825	6:49AM	8: 3PM LT	13:14
910826	6:50AM	8: 1PM LT	13:12
910827	6:50AM	8: 0PM LT	13:10
910828	6:51AM	7:59PM LT	13: 8
910829	6:52AM	7:57PM LT	13: 6
910830	6:53AM	7:56PM LT	13: 3
910831	6:53AM	7:55PM LT	13: 1



30-YEAR MEAN AUGUST DAILY MAXIMUM TEMPERATURE



30-YEAR MEAN AUGUST DAILY MINIMUM TEMPERATURE



30-YEAR MEAN AUGUST PRECIPITATION

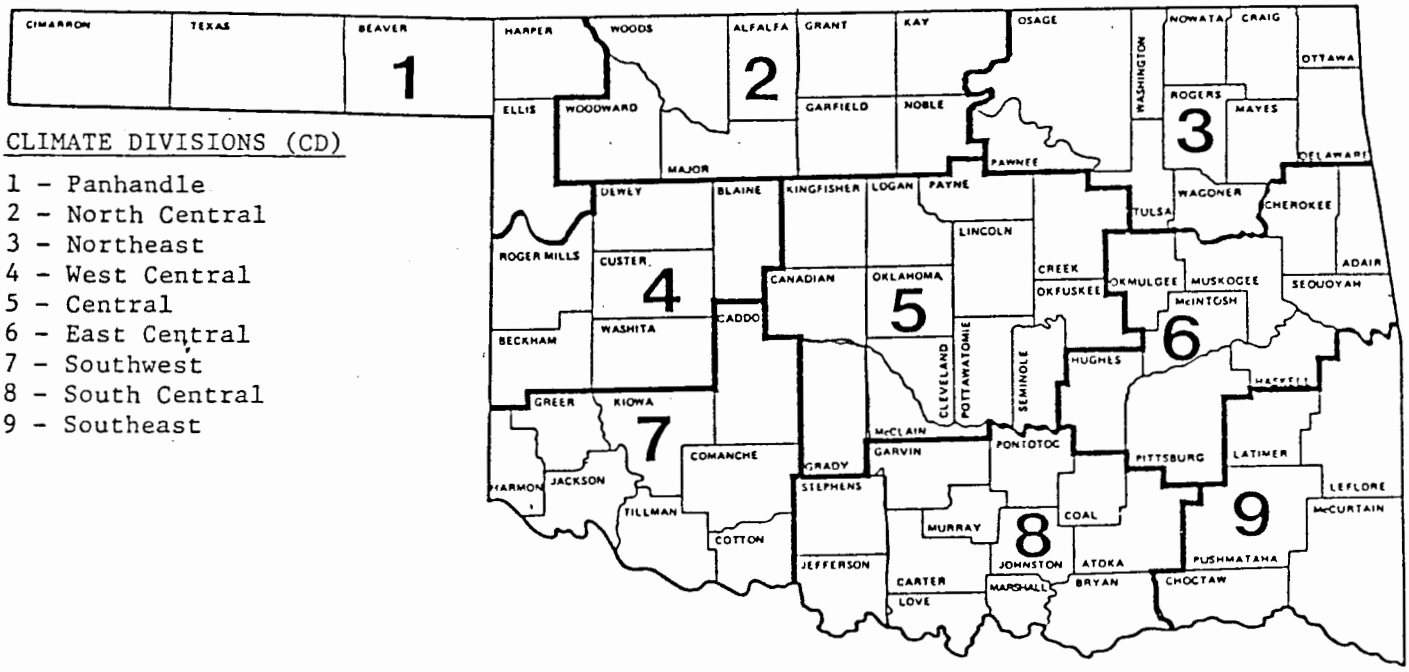
90-DAY NATIONAL WEATHER SERVICE OUTLOOK

(July-September 1991)

Precipitation - Near Normal Statewide

Temperature - Near Normal Statewide

O K L A H O M A



CLIMATE DIVISIONS (CD)

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

EXPLANATION OF TABLES

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

Station Name:

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

Climate Division: See the figure above.

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

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

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

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

Heating Degree Days: HDD are calculated each day of the month for which there is a temperature report and summed. They are a qualitative measure of how much heat was required to maintain a comfortable indoor temperature. Missing observations may result in an artificially high or low value. For February 1984 HDD would be calculated as:

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

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

Cooling Degree Days: CDD are calculated each day of the month for which there is a temperature report and summed. They are a proxy measure of how much cooling was required to maintain a comfortable indoor temperature. Missing observations may result in an artificially high or low value. For June, CDD would be calculated as:

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

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

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

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

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

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

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

OKLAHOMA CITY CLIMATE CALENDAR

August 1991

The data on this calendar are for Oklahoma City. Normal values are calculated for the period 1948-1988. Extremes are found for the period of record (1924-present).

Normal 1	Actual	Normal 2	Actual	Normal 3	Actual	Normal 4	Actual	Normal 5	Actual	Normal 6	Actual	Normal 7	Actual
93.6 max		93.4 max		94.1 max		92.5 max		94.1 max		95.1 max		94.5 max	
70.6 min		70.2 min		70.7 min		70.5 min		70.7 min		71.8 min		71.1 min	
.038 ppt		.030 ppt		.016 ppt		.095 ppt		.039 ppt		.109 ppt		.133 ppt	
0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd	
17 cdd		17 cdd		18 cdd		17 cdd		18 cdd		19 cdd		18 cdd	
Highest Max 108-1980		Highest Max 110-1980		Highest Max 106-1930		Highest Max 104-1937		Highest Max 106-1964		Highest Max 106-1929		Highest Max 107-1946	
Lowest Max 73-1950		Lowest Max 81-1989		Lowest Max 78-1927		Lowest Max 75-1978		Lowest Max 81-1978		Lowest Max 76-1971		Lowest Max 76-1989	
Lowest Min 58-1971		Lowest Min 57-1971		Lowest Min 59-1973		Lowest Min 58-1973		Lowest Min 60-1949		Lowest Min 62-1990		Lowest Min 60-1989	
Highest Min 83-1934		Highest Min 81-1932		Highest Min 80-1943		Highest Min 82-1980		Highest Min 79-1970		Highest Min 80-1962		Highest Min 82-1951	
Greatest Ppt 1.44-1989		Greatest Ppt 1.01-1927		Greatest Ppt 1.82-1990		Greatest Ppt 1.32-1985		Greatest Ppt .60-1976		Greatest Ppt 1.38-1965		Greatest Ppt 2.15-1939	

Normal 8	Actual	Normal 9	Actual	Normal 10	Actual	Normal 11	Actual	Normal 12	Actual	Normal 13	Actual	Normal 14	Actual
93.7 max		93.4 max		93.1 max		92.9 max		93.2 max		93.7 max		93.0 max	
70.7 min		69.9 min		70.3 min		69.9 min		69.2 min		70.3 min		71.0 min	
.101 ppt		.155 ppt		.088 ppt		.024 ppt		.045 ppt		.066 ppt		.100 ppt	
0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd	
17 cdd		17 cdd		17 cdd		17 cdd		16 cdd		17 cdd		17 cdd	
Highest Max 106-1970		Highest Max 109-1936		Highest Max 112-1936		Highest Max 113-1936		Highest Max 110-1936		Highest Max 107-1936		Highest Max 106-1956	
Lowest Max 78-1989		Lowest Max 75-1927		Lowest Max 71-1989		Lowest Max 73-1968		Lowest Max 78-1989		Lowest Max 73-1989		Lowest Max 68-1989	
Lowest Min 54-1989		Lowest Min 59-1989		Lowest Min 63-1989		Lowest Min 59-1931		Lowest Min 56-1967		Lowest Min 54-1967		Lowest Min 60-1967	
Highest Min 82-1951		Highest Min 80-1970		Highest Min 81-1936		Highest Min 82-1936		Highest Min 83-1936		Highest Min 83-1936		Highest Min 79-1943	
Greatest Ppt 1.27-1952		Greatest Ppt 1.19-1974		Greatest Ppt 1.18-1977		Greatest Ppt .75-1929		Greatest Ppt .55-1961		Greatest Ppt 1.67-1989		Greatest Ppt 1.93-1989	

Normal 15	Actual	Normal 16	Actual	Normal 17	Actual	Normal 18	Actual	Normal 19	Actual	Normal 20	Actual	Normal 21	Actual
93.1 max		94.0 max		93.3 max		92.4 max		90.9 max		91.5 max		92.4 max	
70.8 min		71.3 min		70.8 min		69.9 min		69.1 min		68.8 min		68.8 min	
.203 ppt		.053 ppt		.035 ppt		.124 ppt		.100 ppt		.089 ppt		.107 ppt	
0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd	
17 cdd		18 cdd		17 cdd		16 cdd		15 cdd		15 cdd		16 cdd	
Highest Max 107-1956		Highest Max 107-1956		Highest Max 105-1956		Highest Max 103-1984		Highest Max 106-1934		Highest Max 104-1934		Highest Max 103-1984	
Lowest Max 77-1940		Lowest Max 79-1964		Lowest Max 76-1932		Lowest Max 78-1927		Lowest Max 75-1927		Lowest Max 67-1950		Lowest Max 80-1951	
Lowest Min 61-1963		Lowest Min 64-1963		Lowest Min 62-1942		Lowest Min 57-1943		Lowest Min 56-1932		Lowest Min 56-1950		Lowest Min 51-1956	
Highest Min 81-1954		Highest Min 81-1934		Highest Min 82-1934		Highest Min 81-1934		Highest Min 80-1936		Highest Min 81-1934		Highest Min 81-1934	
Greatest Ppt 2.69-1945		Greatest Ppt 1.42-1981		Greatest Ppt .93-1932		Greatest Ppt 2.87-1966		Greatest Ppt .87-1977		Greatest Ppt 1.38-1937		Greatest Ppt 1.40-1983	

Normal 22	Actual	Normal 23	Actual	Normal 24	Actual	Normal 25	Actual	Normal 26	Actual	Normal 27	Actual	Normal 28	Actual
91.5 max		91.2 max		92.0 max		91.8 max		92.0 max		91.4 max		90.0 max	
68.9 min		68.2 min		68.2 min		68.4 min		68.0 min		68.7 min		67.9 min	
.031 ppt		.066 ppt		.063 ppt		.024 ppt		.067 ppt		.074 ppt		.069 ppt	
0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd	
15 cdd		15 cdd		15 cdd		15 cdd		15 cdd		15 cdd		14 cdd	
Highest Max 101-1936		Highest Max 105-1980		Highest Max 105-1963		Highest Max 102-1988		Highest Max 101-1938		Highest Max 103-1984		Highest Max 104-1982	
Lowest Max 76-1961		Lowest Max 70-1966		Lowest Max 73-1966		Lowest Max 72-1934		Lowest Max 76-1934		Lowest Max 69-1987		Lowest Max 68-1988	
Lowest Min 56-1956		Lowest Min 59-1949		Lowest Min 55-1961		Lowest Min 58-1966		Lowest Min 55-1962		Lowest Min 58-1944		Lowest Min 52-1944	
Highest Min 79-1948		Highest Min 78-1936		Highest Min 78-1936		Highest Min 78-1936		Highest Min 78-1936		Highest Min 78-1936		Highest Min 78-1938	
Greatest Ppt 3.17-1934		Greatest Ppt 2.27-1934		Greatest Ppt .87-1987		Greatest Ppt 1.81-1934		Greatest Ppt .63-1987		Greatest Ppt 1.53-1941		Greatest Ppt 1.28-1959	

Normal 29	Actual	Normal 30	Actual	Normal 31	Actual
90.5 max		91.2 max		89.0 max	
67.7 min		68.0 min		67.3 min	
.079 ppt		.041 ppt		.167 ppt	
0 hdd		0 hdd		0 hdd	
14 cdd		15 cdd		13 cdd	
Highest Max 106-1984		Highest Max 105-1947		Highest Max 104-1990	
Lowest Max 70-1935		Lowest Max 74-1968		Lowest Max 72-1986	
Lowest Min 53-1988		Lowest Min 54-1946		Lowest Min 57-1988	
Highest Min 75-1990		Highest Min 76-1990		Highest Min 76-1990	
Greatest Ppt 2.33-1935		Greatest Ppt 1.32-1928		Greatest Ppt 2.35-1966	

AUGUST AVERAGES

Temperature	:	81.1°F
Precipitation	:	2.43"
Heating Degree Days	:	0
Cooling Degree Days	:	502

TULSA CLIMATE CALENDAR

August 1991

The data on this calendar are for Tulsa. Normal values are calculated for the period 1948-1987. Temperature extremes are for the period 1905-1990; precipitation extremes are for the period 1948-1990.

Normal 1	Actual	Normal 2	Actual	Normal 3	Actual	Normal 4	Actual	Normal 5	Actual	Normal 6	Actual	Normal 7	Actual
93.0 max		94.0 max		94.0 max		93.0 max		95.0 max		95.0 max		95.0 max	
72.0 min		.72.0 min		71.0 min		71.0 min		71.0 min		72.0 min		72.0 min	
.070 ppt		.030 ppt		.020 ppt		.080 ppt		.030 ppt		.060 ppt		.080 ppt	
0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd	
18 cdd		18 cdd		18 cdd		17 cdd		18 cdd		19 cdd		18 cdd	
Highest Max	110-1923	Highest Max	108-1980	Highest Max	110-1923	Highest Max	111-1923	Highest Max	110-1964	Highest Max	109-1956	Highest Max	109-1935
Lowest Max	76-1950	Lowest Max	82-1976	Lowest Max	82-1971	Lowest Max	72-1978	Lowest Max	82-1948	Lowest Max	70-1948	Lowest Max	78-1989
Lowest Min	59-1925	Lowest Min	57-1971	Lowest Min	57-1976	Lowest Min	52-1920	Lowest Min	57-1920	Lowest Min	60-1920	Lowest Min	60-1920
Highest Min	86-1980	Highest Min	84-1980	Highest Min	81-1987	Highest Min	84-1980	Highest Min	82-1980	Highest Min	82-1980	Highest Min	81-1980
Greatest Ppt	.82-1956	Greatest Ppt	.62-1978	Greatest Ppt	.50-1981	Greatest Ppt	2.03-1957	Greatest Ppt	.40-1986	Greatest Ppt	.97-1981	Greatest Ppt	1.01-1954

Normal 8	Actual	Normal 9	Actual	Normal 10	Actual	Normal 11	Actual	Normal 12	Actual	Normal 13	Actual	Normal 14	Actual
94.0 max		93.0 max		93.0 max		93.0 max		93.0 max		94.0 max		92.0 max	
72.0 min		71.0 min		71.0 min		71.0 min		70.0 min		71.0 min		71.0 min	
.160 ppt		.180 ppt		.180 ppt		.050 ppt		.070 ppt		.150 ppt		.250 ppt	
0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd	
18 cdd		17 cdd		17 cdd		17 cdd		17 cdd		18 cdd		17 cdd	
Highest Max	111-1935	Highest Max	114-1936	Highest Max	115-1936	Highest Max	114-1936	Highest Max	113-1936	Highest Max	114-1936	Highest Max	110-1923
Lowest Max	81-1989	Lowest Max	79-1974	Lowest Max	82-1986	Lowest Max	74-1968	Lowest Max	79-1968	Lowest Max	74-1961	Lowest Max	70-1961
Lowest Min	57-1989	Lowest Min	59-1989	Lowest Min	55-1920	Lowest Min	58-1931	Lowest Min	62-1967	Lowest Min	54-1967	Lowest Min	53-1920
Highest Min	82-1970	Highest Min	80-1980	Highest Min	81-1980	Highest Min	80-1983	Highest Min	80-1987	Highest Min	84-1980	Highest Min	83-1980
Greatest Ppt	2.43-1973	Greatest Ppt	2.65-1974	Greatest Ppt	2.19-1979	Greatest Ppt	.91-1966	Greatest Ppt	1.30-1948	Greatest Ppt	1.37-1949	Greatest Ppt	1.95-1948

Normal 15	Actual	Normal 16	Actual	Normal 17	Actual	Normal 18	Actual	Normal 19	Actual	Normal 20	Actual	Normal 21	Actual
93.0 max		93.0 max		93.0 max		93.0 max		92.0 max		92.0 max		92.0 max	
71.0 min		71.0 min		71.0 min		71.0 min		70.0 min		69.0 min		69.0 min	
.200 ppt		.080 ppt		.110 ppt		.070 ppt		.050 ppt		.100 ppt		.080 ppt	
0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd	
17 cdd		18 cdd		18 cdd		17 cdd		16 cdd		16 cdd		16 cdd	
Highest Max	109-1936	Highest Max	109-1956	Highest Max	109-1909	Highest Max	109-1918	Highest Max	108-1934	Highest Max	106-1935	Highest Max	106-1936
Lowest Max	72-1961	Lowest Max	77-1964	Lowest Max	74-1957	Lowest Max	81-1981	Lowest Max	75-1977	Lowest Max	66-1950	Lowest Max	80-1950
Lowest Min	57-1929	Lowest Min	60-1920	Lowest Min	53-1920	Lowest Min	54-1943	Lowest Min	56-1932	Lowest Min	53-1967	Lowest Min	54-1950
Highest Min	83-1954	Highest Min	82-1983	Highest Min	84-1956	Highest Min	82-1954	Highest Min	80-1980	Highest Min	78-1983	Highest Min	80-1987
Greatest Ppt	2.19-1969	Greatest Ppt	1.42-1957	Greatest Ppt	1.35-1970	Greatest Ppt	.74-1960	Greatest Ppt	.73-1987	Greatest Ppt	5.37-1989	Greatest Ppt	1.31-1966

Normal 22	Actual	Normal 23	Actual	Normal 24	Actual	Normal 25	Actual	Normal 26	Actual	Normal 27	Actual	Normal 28	Actual
91.0 max		91.0 max		92.0 max		92.0 max		92.0 max		92.0 max		91.0 max	
69.0 min		69.0 min		69.0 min		69.0 min		69.0 min		69.0 min		68.0 min	
.080 ppt		.050 ppt		.070 ppt		.020 ppt		.070 ppt		.080 ppt		.190 ppt	
0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd		0 hdd	
15 cdd		15 cdd		16 cdd		16 cdd		16 cdd		16 cdd		15 cdd	
Highest Max	106-1936	Highest Max	108-1936	Highest Max	107-1936	Highest Max	105-1978	Highest Max	104-1978	Highest Max	105-1913	Highest Max	104-1963
Lowest Max	72-1961	Lowest Max	68-1966	Lowest Max	79-1966	Lowest Max	83-1985	Lowest Max	76-1964	Lowest Max	70-1987	Lowest Max	70-1988
Lowest Min	50-1920	Lowest Min	51-1920	Lowest Min	53-1920	Lowest Min	57-1966	Lowest Min	52-1910	Lowest Min	50-1910	Lowest Min	53-1967
Highest Min	77-1987	Highest Min	78-1983	Highest Min	80-1983	Highest Min	80-1983	Highest Min	81-1978	Highest Min	80-1983	Highest Min	82-1990
Greatest Ppt	1.14-1971	Greatest Ppt	1.11-1977	Greatest Ppt	2.18-1972	Greatest Ppt	.63-1975	Greatest Ppt	1.91-1987	Greatest Ppt	1.00-1974	Greatest Ppt	2.12-1964

Normal 29	Actual	Normal 30	Actual	Normal 31	Actual
91.0 max		91.0 max		90.0 max	
69.0 min		69.0 min		69.0 min	
.100 ppt		.030 ppt		.150 ppt	
0 hdd		0 hdd		0 hdd	
15 cdd		15 cdd		14 cdd	
Highest Max	107-1984	Highest Max	107-1947	Highest Max	106-1951
Lowest Max	70-1974	Lowest Max	72-1968	Lowest Max	74-1986
Lowest Min	51-1931	Lowest Min	50-1915	Lowest Min	48-1915
Highest Min	79-1984	Highest Min	79-1983	Highest Min	84-1980
Greatest Ppt	2.36-1955	Greatest Ppt	.68-1949	Greatest Ppt	1.86-1962

AUGUST AVERAGES

Temperature	:	81.5°F
Precipitation	:	2.94"
Heating Degree Days	:	0
Cooling Degree Days	:	518