

# OKLAHOMA MONTHLY SUMMARY SEPTEMBER 1992

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## MONTHLY SUMMARY FOR SEPTEMBER 1992

Precipitation during September in southeastern and east central Oklahoma averaged nearly twice the 30-year normal for the month which contrasted sharply with very dry conditions in the western third of the state. Seven stations in the eastern half of the state reported monthly precipitation totals in excess of 10 inches, led by 13.96 inches at Quinton. In the west, 31 stations reported less than one inch for the month, including reports of no measurable precipitation at Buffalo, Gage and Reydton.

The statewide average precipitation of 3.69 inches was .25 inch less than the September normal. Statewide precipitation for the year thus far is 31.43 inches, which exceeds the established norm by 4.34 inches and ranks as the 18th greatest January through September precipitation out of 101 years of record.

Temperatures for the month were near-to-slightly below normal. The statewide average temperature for the month was 72.2 degrees, eight-tenths of a degree below normal. For the year-to-date, the state's average temperature of 63.6 degrees is one-tenth of a degree above normal.

High temperatures in the west were in the 90s during the first three weeks of the month. Buffalo reached 101 degrees on the 17th, the only reported temperature to exceed 100 degrees during the month. A series of weak frontal systems and upper-air disturbances traversed the state during the first ten days of the month, producing widespread thunderstorms.

Wilburton and Enid each reported nearly three inches of precipitation the morning of the 2nd. Later in the day, heavy thunderstorms developed in central Oklahoma. A strong tornado touched down southwest of Purcell in McClain County and remained on the ground for 30 minutes, finally lifting 3 miles northeast of Wayne. Large hail was also reported in McClain County. Tuskahoma, Clayton and Quinton each received over three inches of rain from the storms.

Several weak tornadoes were spotted in the northwest on the 5th. Later that night, thunderstorm winds as high as 95 miles per hour struck Norman, causing damages estimated at \$2.7 million. Large hail was also reported in Oklahoma City. Several locations in east central Oklahoma reported more than two inches of precipitation, led by Okemah with 2.86 inches. The storms caused interruption of electrical service to an estimated 52,000 customers, including 28,000 in Norman.

Thunderstorms on the evening of the 8th caused minor flooding in Rogers County and produced several small tornadoes in Rogers and Mayes Counties. Pryor reported 3.30 inches of precipitation from the storms. More thunderstorms on the 9th produced several reports of strong winds, including one of 80 miles per hour at Fairfax. Webbers Falls (3.79), Lake Eufaula (3.33) and Lyons (3.08) all reported over three inches of rain.

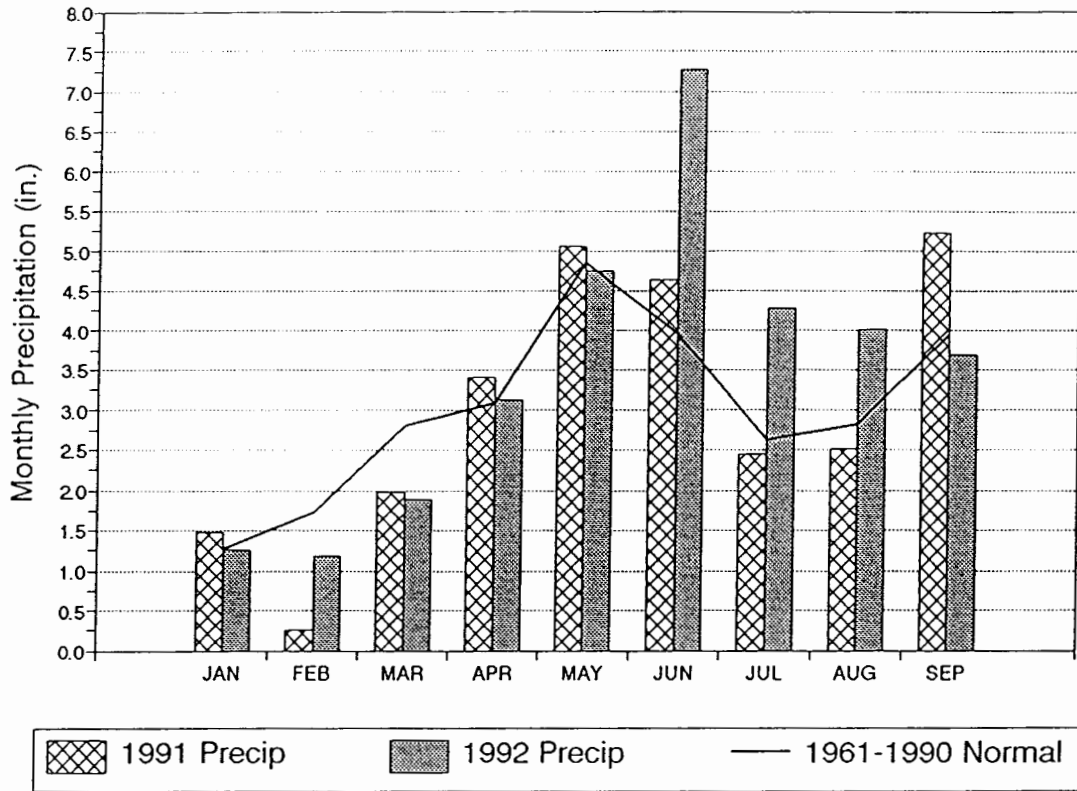
Significantly cooler air reached Oklahoma behind a cold front that crossed the state on the 10th and 11th. Duncan, Farris and Bokchito each reported over three inches of rain with the passage of the system, which dropped overnight low temperatures into the 40s across much of northern Oklahoma. No precipitation was reported in the state on the 15th, 16th and 17th as daytime temperatures returned to the upper 90s, reaching 101 degrees at Buffalo on the 17th.

A new frontal system which entered Oklahoma on the 18th affected weather across the state until leaving with a significant push of cool air on the 22nd. Muskogee reported the greatest daily precipitation for the month (4.10 inches) on the 19th. McAlester, Wetumka, Lake Eufaula and Vinita also reported daily precipitation amounts in excess of three inches with the system. Quinton had consecutive days of precipitation in excess of two inches, totaling 4.86 inches reported on the 18th and 19th.

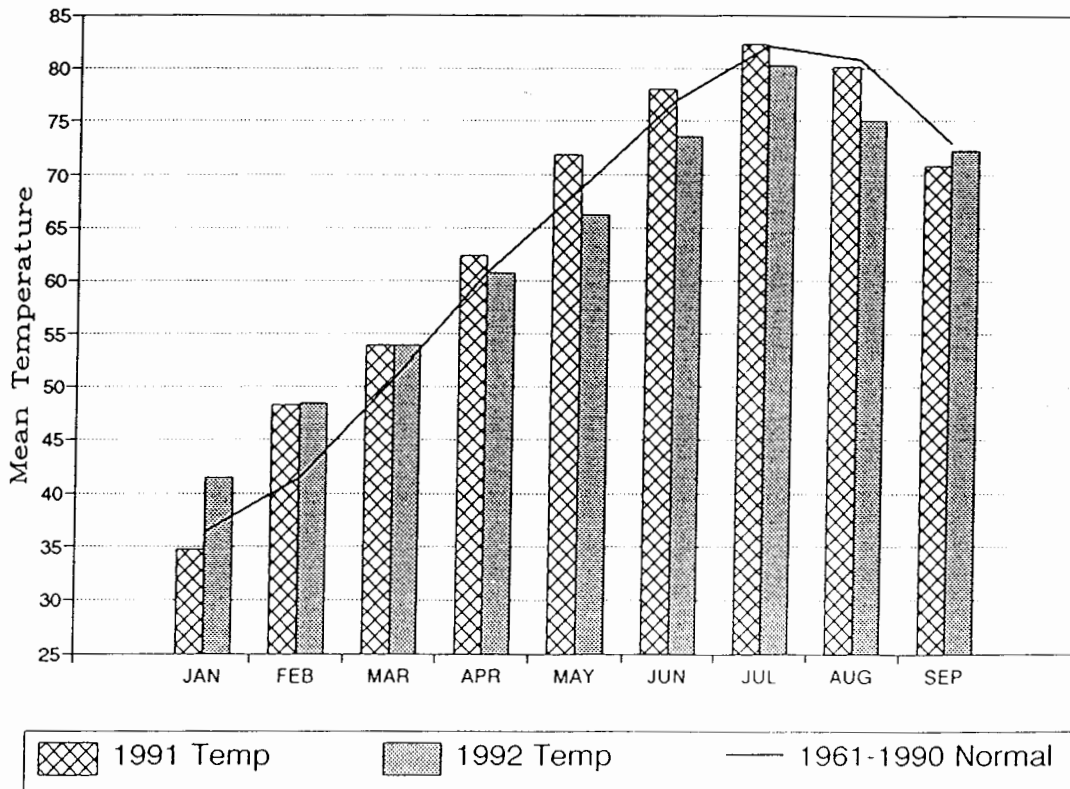
Morning temperatures dipped into the 40s again on the 22nd, as the rains in central and eastern Oklahoma diminished and classical autumn weather began to appear in Oklahoma. Some showers, mainly in the northeast, were reported during the last week of the month, but the heavy precipitation had ended by the 23rd. Minimum temperatures in the 40s and highs in the 80s were commonplace for the remainder of September.

Howard L. Johnson

### 1991 and 1992 STATEWIDE PRECIPITATION January Through September Totals

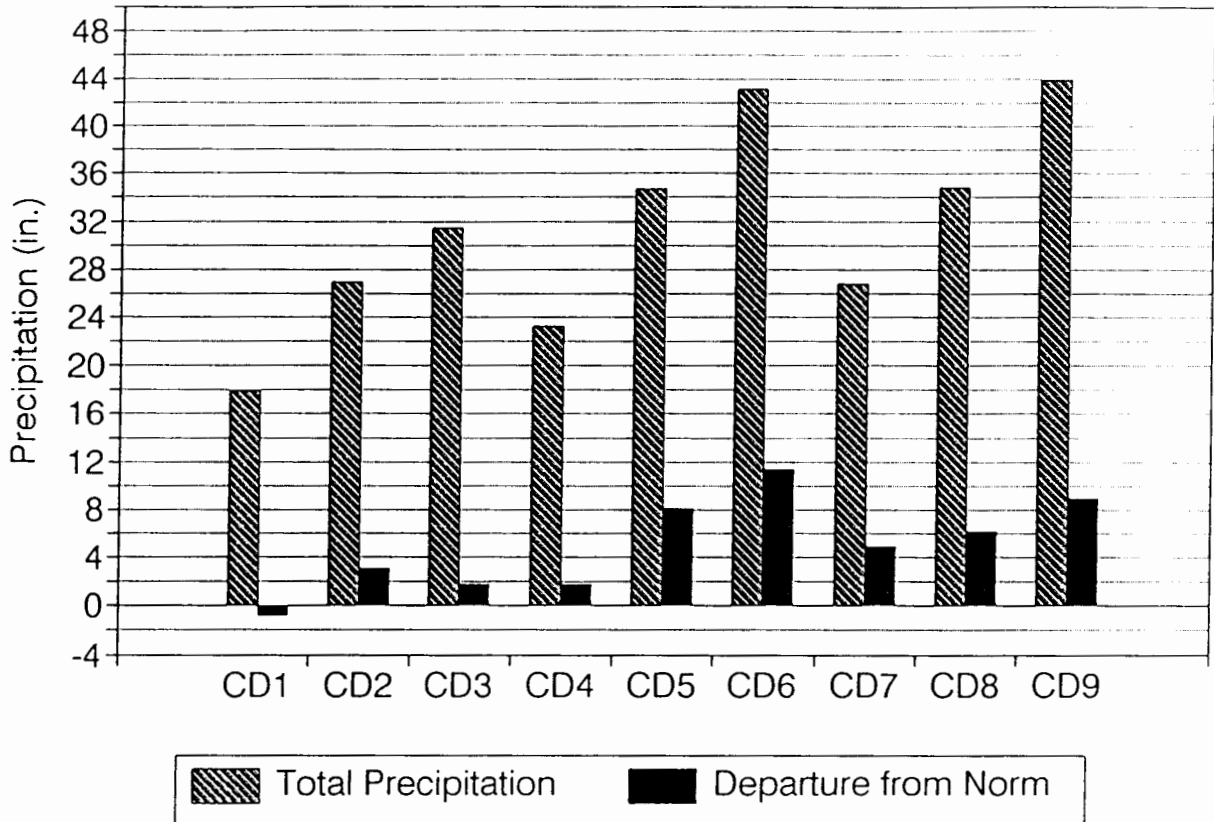


### 1991 and 1992 STATEWIDE TEMPERATURES January Through September Averages

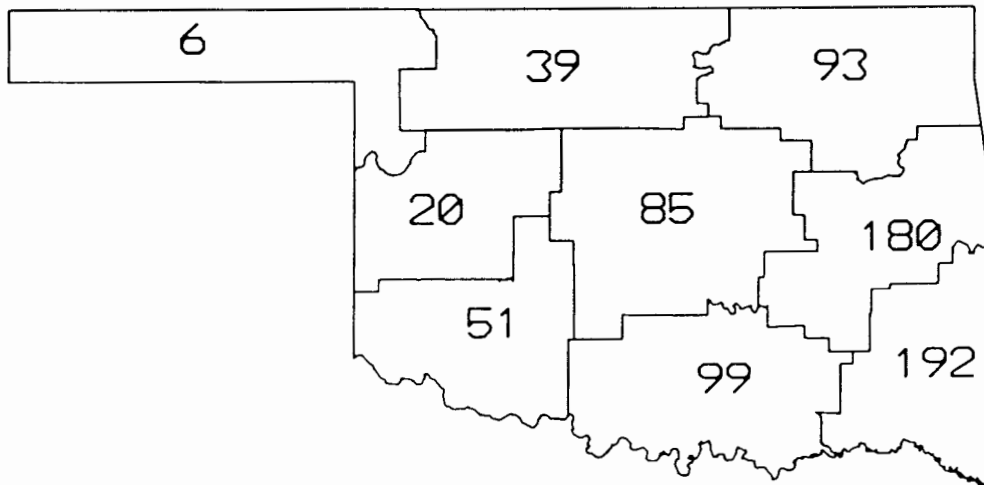


# CD Averaged Precipitation

## January Through September 1992



### SEPTEMBER 1992 CLIMATE DIVISION PERCENT OF NORMAL PRECIPITATION



EXTREME VALUES OF TEMPERATURE AND PRECIPITATION IN EACH CLIMATE DIVISION  
SEPTEMBER, 1992

CD	MAX TEMP	DATE	LOCATION	MIN TEMP	DATE	LOCATION	24-HOUR PRECIP	DATE	LOCATION	MONTHLY PRECIP	LOCATION
1	101	17	BUFFALO	39 39	29 29	BUFFALO GAGE	33	1	GUYMON	40	GUYMON
2	98 98 98 98	5 7 9 8	ALVA ALVA CHEROKEE MUTUAL	35	29	FREEDOM	2.93	2	ENID	4.45	ENID
3	96	26	BIXBY	40	24	HULAH DAM	3.54	21	VINITA	8.72	MIAMI
4	99	5	REYDON	40 40 40 40	25 27 28 30	HAMMON HAMMON HAMMON HAMMON	1.27	6	HAMMON	2.30	HAMMON
5	94 94 94	10 9 8	GUTHRIE KINGFISHER NORMAN	41	30	BRISTOW	2.86	6	OKEMAH	11.48	OKEMAH
6	94	18	MCALESTER	42 42	30 30	HANNA OKMULGEE	4.10	19	MUSKOGEE	13.96	QUINTON
7	97 97 97	9 5 20	CHATTANOOGA HOLLIS HOLLIS	41	24	WICHITA MT	2.05	1	ROOSEVELT	3.31	ROOSEVELT
8	98	18	CANEY	41 41	27 27	WAURIKA WAURIKA	3.72	11	DUNCAN	7.69	DAISY
9	95	19	BOSWELL	39	30	TUSKAHOMA	3.30	3	TUSKAHOMA	12.08	FANSHAW

TABLE OF 1991/1992 COMPARISONS

Station	September Temperature (F)		September Precipitation (in.)	
	1991	1992	1991	1992
Arnett	66.4	70.0	3.34	0.06
Enid	70.4	72.4	2.77	4.45
Mutual	68.3	71.2	4.73	0.05
Tulsa	73.3	73.4	6.15	3.38
Elk City	69.5	72.6	4.19	1.11
Oklahoma City	70.8	72.5	11.85	2.92
McAlester	72.6	73.9	5.45	7.85
Altus Irr Sta	70.7	74.1	4.59	1.38
Durant	72.6	72.3	3.67	6.05
Ada	70.8	71.4	7.67	5.61
Antlers	73.2	73.1	1.32	5.84

EXTREMES

Variable	Station	Division	Observation	Date
Minimum temperature (F)	Freedom	2	35	29
Maximum temperature (F)	Buffalo	1	101	17
Maximum 24-hour precipitation	Muskogee	6	4.10"	19

SEPTEMBER 1992 SUMMARY FOR NORTHWEST DIVISION (CD1)

NAME	ID	CD	DEV					HEAT		DEV		COOL		DEV		TOT	NUM	DEV	MAX	24-HR	DAY
			MEAN	NUM	FROM	MAX	MIN	DEG	FROM	DEG	FROM	DEG	FROM	FROM	NORM						
ARNETT	332	1	70.0	30	-0	94.	8	45.	30	22.0	-3.0	171.0	-4.0	.061	30	-2.47	.03	9			
BEAVER	593	1	70.7	30	1.0	96.	18	43.	30	15.0	-16.0	187.0	15.0	.280	30	-1.54	.21	5			
BOISE CITY 2 E	908	1	70.1	30	2.3	98.	17	40.	28	7.0	-25.0	159.0	43.0	.583	30	-1.25	.48	14			
BUFFALO	1243	1	74.5	30	1.6	101.	17	39.	29	7.5	-5.5	292.0	42.0	.000	30	-3.08	.00	30			
FARGO	3070	1	****	0	****	****	0	****	0	****	****	****	****	.050	30	-2.22	.05	9			
GAGE FAA APT	3407	1	72.3	29	.7	96.	17	39.	29	13.0	-5.0	225.0	9.0	.003	29	****	.00	26			
GATE	3489	1	72.5	30	1.3	99.	18	45.	29	9.0	-8.0	233.0	30.0	.000	30	-2.09	.00	30			
GOODWELL RES ST	3628	1	69.8	30	1.7	97.	15	43.	29	12.0	-27.0	155.5	23.5	.091	30	-1.59	.05	4			
GUYMON	3835	1	70.6	28	****	94.	17	46.	27	14.0	****	171.0	****	.400	29	****	.33	1			
HOOVER	4298	1	69.9	30	.4	95.	18	44.	29	16.0	-18.0	162.5	-6.5	.362	30	-1.69	.28	1			
KENTON	4766	1	68.7	30	2.0	96.	14	43.	25	23.0	-26.0	134.0	34.0	.000	30	-1.85	.00	30			
LAVERNE	5045	1	****	0	****	****	0	****	0	****	****	****	****	.252	30	-1.77	.25	2			
OPTIMA LAKE	6740	1	70.6	30	****	96.	18	43.	29	15.5	****	184.5	****	.030	30	****	.03	4			
TURPIN 4 SSE	9017	1	70.1	30	****	95.	18	44.	29	19.5	****	171.5	****	.121	30	****	.12	5			

SEPTEMBER 1992 SUMMARY FOR NORTH CENTRAL DIVISION (CD2)

NAME	ID	CD	DEV					HEAT		DEV		COOL		DEV		TOT	NUM	DEV	MAX	24-HR	DAY
			MEAN	NUM	FROM	MAX	MIN	DEG	FROM	DEG	FROM	DEG	FROM	FROM	NORM						
ALVA	193	2	74.3	30	****	98.	7	43.	29	9.0	****	287.0	****	.390	30	****	.32	10			
VANCE AFB	302	2	****	0	****	****	0	****	0	****	****	****	****	1.143	29	****	1.03	2			
BILLINGS	755	2	70.1	28	****	90.	8	40.	28	24.0	****	165.5	****	2.520	28	****	1.05	21			
BLACKWELL 2E	818	2	72.4	30	-.4	95.	9	43.	29	13.0	-4.0	234.0	-17.0	.783	30	-3.30	.42	26			
CEDARDALE	1620	2	****	0	****	****	0	****	0	****	****	****	****	.682	30	****	.55	11			
CHEROKEE	1724	2	74.6	30	.8	98.	9	44.	29	5.5	-5.5	292.5	17.5	1.610	30	-1.45	1.30	22			
ENID	2912	2	72.4	30	-1.0	92.	9	46.	29	14.0	1.0	235.0	-30.0	4.450	30	.97	2.93	2			
FT SUPPLY DAM	3304	2	70.9	30	.5	94.	18	43.	29	14.0	-8.0	190.0	6.0	.041	30	-2.27	.04	2			
FREEDOM	3358	2	71.3	30	-1.4	96.	18	35.	29	39.5	25.5	227.5	-17.5	.610	30	-1.98	.60	2			
GREAT SALT PLNS	3740	2	71.5	30	-.6	96.	10	42.	29	16.5	-.5	211.5	-18.5	1.271	30	-2.06	.65	6			
HARDY	3909	2	****	0	****	****	0	****	0	****	****	****	****	3.413	30	****	1.50	9			
HELENA 1 SSE	4019	2	71.5	30	.0	93.	18	43.	29	14.5	-4.5	210.5	-3.5	2.211	30	-1.02	1.29	6			
JEFFERSON	4573	2	72.8	30	-.5	96.	9	39.	29	20.0	9.0	253.5	-6.5	.581	30	-3.11	.18	25			
LAMONT	5013	2	****	0	****	****	0	****	0	****	****	****	****	.870	30	****	.77	22			
MEDFORD	5768	2	****	0	****	****	0	****	0	****	****	****	****	1.190	30	****	.75	21			
MUTUAL	6139	2	71.2	30	.0	98.	8	41.	30	21.5	2.5	208.5	3.5	.050	30	-2.60	.05	1			
NEWKIRK	6278	2	71.9	29	-.8	92.	9	42.	29	17.5	3.5	217.0	-28.0	1.582	30	-2.69	.56	2			
ORIENTA	6751	2	****	0	****	****	0	****	0	****	****	****	****	.170	30	-2.89	.10	6			
PERRY	7012	2	73.6	30	.0	97.	9	46.	29	8.0	-6.0	267.0	-5.0	3.510	30	-.87	1.23	2			
PONCA CITY FAA	7201	2	73.1	29	1.0	94.	9	45.	29	12.5	-10.5	247.5	11.5	2.614	29	****	1.59	10			
RED ROCK 1 NNE	7505	2	****	0	****	****	0	****	0	****	****	****	****	2.180	30	-2.05	.75	10			
WAYNOKA	9404	2	72.9	30	.0	97.	5	40.	29	17.5	3.5	254.5	3.5	.980	30	-1.59	.92	2			
WOODWARD	9760	2	****	0	****	****	0	****	0	****	****	****	****	.030	30	-2.31	.03	1			

SEPTEMBER 1992 SUMMARY FOR NORTHEAST DIVISION (CD3)

NAME	ID	CD	DEV				HEAT			DEV		COOL		DEV		TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
			MEAN TEMP	NUM OBS	FROM NORM	MAX TEMP	DAY	DEG DAY	FROM NORM	DEG DAY	FROM NORM	DEG DAY	FROM NORM	DEG DAY						
BARNSDALL	535	3	70.7	30	-2.2	91.	9	42.	30	40.0	16.0	209.5	-48.5	2.940	30	-2.67	.74	10		
BARTLESVILLE 2W	548	3	71.5	30	-1.3	93.	7	41.	30	34.5	18.5	230.0	-20.0	2.013	30	-2.56	.55	26		
BIXBY	782	3	71.0	30	-.5	96.	26	43.	30	31.0	10.0	210.5	-5.5	3.680	30	-1.03	.93	10		
BURBANK	1256	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.060	30	-1.60	.86	9		
CHELSEA 4 S	1717	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	8.220	30	*****	2.58	9		
CLAREMORE	1828	3	70.6	30	-1.4	91.	10	45.	30	33.5	9.5	201.5	-32.5	7.030	30	2.58	2.27	9		
CLEVELAND 5 WSW	1902	3	72.7	30	*****	92.	9	42.	29	17.5	*****	249.0	*****	4.030	30	*****	1.91	2		
FORAKER	3250	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.561	30	-.28	1.96	22		
HOLLOW	4258	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.984	30	-1.05	1.89	9		
HOMINY	4289	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.641	30	-.48	1.14	10		
HULAH DAM	4393	3	70.8	20	*****	93.	8	40.	24	36.5	*****	152.5	*****	1.562	29	*****	.72	26		
JAY TOWER	4567	3	70.9	27	*****	94.	8	42.	30	37.0	*****	196.0	*****	3.990	30	*****	1.58	10		
KANSAS 1 ESE	4672	3	69.8	30	-1.8	88.	9	43.	29	32.5	11.5	176.5	-42.5	3.822	30	-1.62	1.30	10		
KEYSTONE DAM	4812	3	69.5	30	-2.0	89.	7	42.	30	40.5	17.5	174.5	-43.5	3.991	30	-.78	1.64	10		
LENAPAH	5118	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.110	30	*****	1.14	9		
MANNFORD 6 NW	5522	3	71.1	30	-1.5	91.	9	44.	29	23.5	-1.5	205.5	-47.5	4.050	30	-.51	1.28	3		
MARAMEC	5540	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.861	30	-.83	1.45	3		
MIAMI	5855	3	69.8	30	-1.2	90.	10	42.	24	43.5	12.5	189.0	-22.0	8.720	30	3.65	1.75	21		
NOWATA	6485	3	70.4	30	-2.0	91.	9	42.	29	33.0	13.0	195.5	-46.5	3.901	30	-1.45	1.20	9		
ONETA 1 WNW	6713	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.070	30	*****	1.28	10		
PAWHUSKA	6935	3	70.9	30	-1.4	90.	9	41.	30	34.5	13.5	210.5	-29.5	1.641	30	-3.29	.50	26		
PAWNEE	6940	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.860	30	-1.18	1.20	10		
PRYOR 6 N	7309	3	69.0	30	-2.2	90.	10	41.	30	45.0	16.0	164.5	-50.5	7.540	30	2.79	3.30	9		
RALSTON	7390	3	72.1	30	-.7	92.	9	42.	29	23.0	4.0	236.0	-17.0	4.000	30	-.67	1.50	2		
SKIATOOK	8258	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.550	30	-.30	1.22	10		
SPAVINAW	8380	3	72.6	30	-1.1	90.	4	45.	29	14.0	2.0	243.0	-30.0	4.274	30	-.51	.93	10		
TULSA WSO APT	8992	3	73.4	30	.1	92.	9	46.	29	9.5	-10.5	262.5	-6.5	3.383	30	-1.32	1.35	6		
UPPER SPAVINAW	9101	3	71.6	29	*****	93.	14	42.	29	38.5	*****	228.5	*****	4.651	30	*****	1.19	10		
VINITA 2 N	9203	3	72.5	19	*****	91.	5	42.	29	12.5	*****	154.5	*****	8.350	23	*****	3.54	21		
WAGONER	9247	3	71.2	30	-2.2	89.	9	45.	29	25.5	11.5	212.5	-53.5	7.250	30	2.69	2.31	10		
WANN	9298	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.010	30	*****	1.92	21		
WYONONA	9792	3	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.680	30	*****	.47	26		

SEPTEMBER 1992 SUMMARY FOR WEST CENTRAL DIVISION (CD4)

NAME	ID	CD	DEV				HEAT			DEV		COOL		DEV		TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
			MEAN TEMP	NUM OBS	FROM NORM	MAX TEMP	DAY	DEG DAY	FROM NORM	DEG DAY	FROM NORM	DEG DAY	FROM NORM	DEG DAY						
CANTON DAM	1445	4	71.4	30	-.5	94.	10	43.	24	17.5	1.5	210.0	-13.0	.570	30	-2.61	.32	11		
CHEYENNE	1738	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.080	30	-1.88	.93	10		
CLINTON	1909	4	73.2	30	-.7	93.	20	45.	29	9.5	-3.5	255.5	-24.5	.531	30	-3.20	.32	1		
COLONY	2039	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.112	30	*****	.34	1		
CORDELL	2125	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	.403	30	-3.21	.40	1		
ELK CITY 1 E	2849	4	72.6	28	*****	92.	21	48.	29	6.5	*****	219.0	*****	1.111	28	*****	.82	6		
ERICK 4 E	2944	4	72.5	30	.1	97.	5	43.	28	14.0	1.0	239.5	4.5	1.121	30	-2.10	.98	10		
GEARY	3497	4	72.5	30	-.2	92.	20	49.	29	3.5	-12.5	227.5	-19.5	.180	30	-3.62	.18	8		
HAMMON 1 NNE	3871	4	69.8	29	-1.5	92.	21	40.	30	36.5	12.5	175.5	-37.5	2.300	29	*****	1.27	6		
MACKIE 4 NNW	5463	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	.750	31	*****	.64	8		
MORAVIA 2 NNE	6035	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.381	30	-2.03	.96	6		
OKEENE	6629	4	73.1	30	-.6	94.	9	44.	29	13.5	.5	255.5	-18.5	.760	30	-2.93	.54	8		
RETROP	7565	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.460	30	*****	1.01	6		
REYDON	7579	4	74.3	30	3.5	99.	5	41.	29	8.0	-10.0	286.5	94.5	.000	30	-3.03	.00	30		
SAYRE	7952	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	.170	30	-2.87	.12	1		
SWEETWATER 2 E	8652	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	.610	30	*****	.61	9		
TALOGA	8708	4	71.6	30	-.5	93.	9	41.	29	25.0	11.0	222.0	-5.0	1.142	30	-1.83	1.05	6		
THOMAS	8815	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	.120	30	*****	.12	21		
VICI	9172	4	*****	0	*****	****	0	****	0	*****	*****	*****	*****	.110	30	-2.53	.06	8		
WATONGA	9364	4	73.2	30	.5	93.	9	44.	29	12.0	-4.0	256.5	9.5	.472	30	-2.90	.24	11		
WEATHERFORD	9422	4	71.8	30	-.3	94.	21	45.	24	9.0	-9.0	212.5	-18.5	.221	30	-3.52	.09	22		

SEPTEMBER 1992 SUMMARY FOR CENTRAL DIVISION (CD5)

NAME	ID	CD	DEV					MIN	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
			MEAN TEMP	NUM OBS	FROM NORM	MAX TEMP	DAY											
AMBER	200	5	****	0	****	****	0	****	0	****	****	****	1.810	30	****	1.15	11	
ARCADIA	288	5	****	0	****	****	0	****	0	****	****	****	4.320	31	****	2.25	6	
TINKER AFB	325	5	****	0	****	****	0	****	0	****	****	****	1.173	28	****	.49	22	
BLANCHARD 2 SSW	830	5	72.9	30	-1.1	92.	20	45.	24	9.0	-2.0	246.0	-35.0	1.884	30	-2.28	.87	11
BRISTOW	1144	5	71.5	30	-1.5	91.	9	41.	30	28.0	9.0	223.0	-36.0	5.821	30	1.18	2.59	3
CHANDLER	1684	5	71.7	28	****	92.	9	46.	29	15.5	****	204.0	****	3.650	30	-.60	1.63	2
CHICKASHA EX ST	1750	5	72.6	30	-1.0	92.	9	43.	24	17.0	5.0	244.0	-26.0	2.550	30	-1.25	1.20	11
COX CITY 1 E	2196	5	****	0	****	****	0	****	0	****	****	****	****	3.650	30	****	1.75	21
CRESCENT	2242	5	****	0	****	****	0	****	0	****	****	****	****	1.840	30	****	.73	6
CUSHING	2318	5	70.7	30	-1.8	91.	10	46.	30	20.5	5.5	191.5	-48.5	3.370	30	-.74	1.51	6
EL RENO 1 N	2818	5	72.8	30	-.0	92.	20	44.	24	14.5	1.5	247.5	.5	1.210	30	-2.92	.62	6
GUTHRIE	3821	5	73.8	30	-.4	94.	10	47.	29	8.0	-6.0	272.5	-17.5	2.330	30	-1.98	.85	6
HENNESSEY 2 SE	4055	5	72.6	30	-.6	96.	9	45.	29	11.0	-1.0	238.0	-20.0	1.371	30	-2.69	.53	6
INGALLS	4489	5	****	0	****	****	0	****	0	****	****	****	****	2.380	30	****	1.11	6
KINGFISHER 2 SE	4861	5	73.0	30	-.9	94.	9	44.	29	13.0	3.0	254.0	-23.0	.860	30	-3.26	.35	11
KONAWA	4915	5	****	0	****	****	0	****	0	****	****	****	****	3.861	30	-.58	2.34	6
MARSHALL	5589	5	****	0	****	****	0	****	0	****	****	****	****	2.470	30	-1.36	1.26	6
MEEKER 4 W	5779	5	70.7	28	****	89.	9	45.	29	26.5	****	185.0	****	4.960	28	****	2.00	6
MULHALL	6110	5	****	0	****	****	0	****	0	****	****	****	****	4.430	30	****	1.33	7
NORMAN 3 S	6386	5	72.7	30	-1.3	94.	8	45.	30	11.0	1.0	240.5	-39.5	2.091	30	-2.00	1.02	11
OILTON 2 SE	6616	5	****	0	****	****	0	****	0	****	****	****	****	4.560	25	****	1.37	19
OKEMAH	6638	5	72.7	30	-.7	92.	9	48.	29	10.5	-4.5	240.0	-24.0	11.481	30	7.22	2.86	6
OKLAHOMA CTY WS	6661	5	72.5	30	-.5	92.	20	50.	29	6.0	-9.0	231.0	-24.0	2.923	30	-.92	1.65	5
PERKINS	7003	5	****	0	****	****	0	****	0	****	****	****	****	2.470	30	-1.93	1.21	2
PIEDMONT	7068	5	****	0	****	****	0	****	0	****	****	****	****	1.660	30	****	.90	6
PRAGUE	7264	5	****	0	****	****	0	****	0	****	****	****	****	7.480	28	****	2.30	19
PURCELL 5 SW	7327	5	72.9	30	-1.3	92.	9	43.	30	15.5	2.5	254.0	-35.0	2.790	30	-1.57	1.00	6
SEMINOLE	8042	5	72.8	30	-2.0	92.	10	45.	30	14.0	5.0	249.5	-53.5	5.070	30	.68	2.00	6
SHAWNEE	8110	5	****	0	****	****	0	****	0	****	****	****	****	4.830	30	.61	2.10	6
STELLA	8479	5	****	0	****	****	0	****	0	****	****	****	****	3.140	30	****	1.54	6
STILLWATER 2 W	8501	5	71.1	30	-1.0	92.	10	43.	29	24.0	7.0	206.0	-24.0	2.721	30	-1.57	1.31	6
STROUD 1 N	8563	5	****	0	****	****	0	****	0	****	****	****	****	4.351	30	****	1.62	2
TECUMSEH	8751	5	****	0	****	****	0	****	0	****	****	****	****	3.280	30	****	1.85	6
TROUSDALE	8960	5	****	0	****	****	0	****	0	****	****	****	****	3.230	31	****	1.25	11
UNION CITY 1 SE	9086	5	****	0	****	****	0	****	0	****	****	****	****	2.143	30	-2.09	1.28	6
WELTY 1 SSE	9479	5	****	0	****	****	0	****	0	****	****	****	****	7.941	30	****	2.68	3
WEWOKA	9575	5	****	0	****	****	0	****	0	****	****	****	****	5.140	30	.82	1.51	6

SEPTEMBER 1992 SUMMARY FOR EAST CENTRAL DIVISION (CD6)

NAME	ID	CD	DEV					MIN	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
			MEAN TEMP	NUM OBS	FROM NORM	MAX TEMP	DAY											
ASHLAND	364	6	****	0	****	****	0	****	0	****	****	****	5.871	30	****	1.18	21	
BEGGS	631	6	****	0	****	****	0	****	0	****	****	****	5.990	30	****	2.55	3	
BOYNTON	1027	6	****	0	****	****	0	****	0	****	****	****	5.951	26	****	1.90	10	
CALVIN	1391	6	****	0	****	****	0	****	0	****	****	****	5.361	30	.92	1.33	6	
CHECOTAH	1711	6	****	0	****	****	0	****	0	****	****	****	8.382	30	3.50	2.61	10	
CLAYTON 15 WNW	1858	6	****	0	****	****	0	****	0	****	****	****	8.650	30	****	3.28	3	
DEWAR 2 NE	2485	6	****	0	****	****	0	****	0	****	****	****	7.690	30	3.15	2.62	3	
EUFULA	2993	6	****	0	****	****	0	****	0	****	****	****	9.480	30	4.91	1.85	2	
HANNA	3884	6	71.3	30	-2.3	90.	9	42.	30	25.5	13.5	215.5	-54.5	9.713	30	5.13	2.65	20
HARTSHORNE	3946	6	****	0	****	****	0	****	0	****	****	****	9.190	30	****	2.74	10	
HASKELL	3956	6	****	0	****	****	0	****	0	****	****	****	5.410	30	1.02	2.20	20	
HOLDENVILLE	4235	6	71.9	30	-1.9	91.	8	43.	30	20.5	10.5	227.5	-46.5	4.670	30	.60	1.48	11
LAKE EUFAULA	4975	6	72.1	30	****	91.	8	47.	30	9.0	****	221.5	****	12.610	30	****	3.33	10
LYONS 2 N	5437	6	****	0	****	****	0	****	0	****	****	****	5.760	30	.94	3.08	10	
MARBLE CITY	5546	6	****	0	****	****	0	****	0	****	****	****	6.613	30	****	2.95	10	
MCALESTER FAA	5664	6	73.9	29	.2	94.	18	46.	30	11.0	-5.0	270.5	-6.5	7.853	29	****	3.42	19
MCCURTAIN 1 SE	5693	6	72.1	30	-1.9	93.	18	43.	30	21.5	7.5	235.5	-48.5	9.412	30	4.65	1.95	20
MUSKOGEE	6130	6	71.9	30	-1.6	90.	10	46.	30	19.0	4.0	227.5	-42.5	9.180	30	4.67	4.10	19
OKMULGEE W W	6670	6	70.2	30	-1.7	91.	10	42.	30	34.0	13.0	190.0	-38.0	8.620	30	4.71	2.45	6
OKTAHA 2 NE	6678	6	****	0	****	****	0	****	0	****	****	****	****	7.440	30	****	2.12	10
QUINTON	7372	6	****	0	****	****	0	****	0	****	****	****	****	13.963	30	9.38	3.20	3
SALLISAW 2 NE	7862	6	71.2	30	-2.6	91.	18	43.	30	26.5	15.5	213.0	-62.0	5.081	30	.57	1.39	20
SCIPIO	7979	6	****	0	****	****	0	****	0	****	****	****	****	7.890	30	****	1.80	2
SCRAPER	7993	6	****	0	****	****	0	****	0	****	****	****	****	5.360	30	****	1.55	10
SHORT	8170	6	****	0	****	****	0	****	0	****	****	****	****	6.112	30	****	1.57	10
STILWELL 1 NE	8506	6	70.1	30	-1.6	89.	18	40.	24	37.0	17.0	190.5	-30.5	6.442	30	1.72	2.53	10
TAHLEQUAH	8677	6	70.3	30	-2.2	90.	9	43.	24	32.0	5.0	192.5	-59.5	6.482	30	1.49	2.24	10
WEBBERS FALLS	9445	6	69.1	19	****	91.	10	44.	30	28.5	****	107.0	****	9.950	30	5.34	3.79	10
WESTVILLE	9523	6	****	0	****	****	0	****	0	****	****	****	****	4.670	30	****	1.41	22
WETUMKA 3 NE	9571	6	****	0	****	****	0	****	0	****	****	****	****	11.670	30	7.09	3.05	20



**SEPTEMBER 1992 SUMMARY FOR SOUTHWEST DIVISION (CD7)**

NAME	ID	CD	DEV					HEAT				DEV				TOT	NUM	DEV		DAY
			MEAN	NUM	FROM	MAX	MIN	DEG	FROM	COOL	DEV	DEG	FROM	FROM	FROM			FROM	FROM	
TEMP	OBS	NORM	TEMP	DAY	TEMP	DAY	DAY	NORM	DAY	NORM	DAY	NORM	PPT	OBS	NORM	24-HR	DAY			
ALTUS IRR STA	179	7	74.1	30	-1.0	95.	20	44.	27	7.0	1.0	281.0	-28.0	1.380	30	-2.06	1.00	1		
ALTUS DAM	184	7	70.9	29	-3.1	90.	21	45.	27	13.5	5.5	184.0	-94.0	2.600	30	-.83	.92	6		
ANADARKO	224	7	73.2	30	-.5	92.	20	44.	30	18.5	5.5	263.0	-11.0	1.480	27	*****	.59	6		
APACHE	260	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.270	30	-1.48	.70	11		
ALTUS AFB	447	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.873	29	*****	1.08	1		
CARNEGIE 2 ENE	1504	7	73.2	30	-.7	95.	20	42.	24	16.5	4.5	262.5	-16.5	1.030	29	*****	.53	6		
CHATTANOOGA	1706	7	75.5	30	.2	97.	9	46.	24	2.0	-5.0	317.0	1.0	.520	30	-3.15	.52	11		
DUNCAN 12 W	2668	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.841	30	*****	1.47	10		
FREDERICK	3353	7	72.6	30	-1.9	93.	22	48.	24	5.5	-1.5	233.5	-58.5	1.960	30	-1.62	1.35	1		
GRANDFIELD 4 NW	3709	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.360	30	-1.67	.88	7		
HOBART FAA APT	4204	7	73.6	29	-.3	93.	20	46.	27	4.5	-5.5	255.0	-22.0	1.020	29	*****	.91	1		
HOLLIS	4249	7	74.6	25	*****	97.	20	45.	28	.5	*****	240.0	*****	1.600	25	*****	1.60	11		
HOLLISTER	4250	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.500	31	*****	1.30	1		
LAWTON	5063	7	73.3	22	*****	95.	10	48.	23	2.5	*****	185.0	*****	1.010	22	*****	.56	1		
FORT SILL	5068	7	74.2	30	*****	95.	9	47.	24	3.0	*****	278.0	*****	.711	30	*****	.42	10		
LOOKEBA 2 ENE	5329	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.691	30	-2.66	.61	11		
MANGUM RES STA	5509	7	72.7	30	-2.0	96.	20	43.	26	12.0	6.0	244.0	-53.0	1.450	30	-1.93	1.00	1		
RANDLETT 9 E	7403	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.330	30	*****	1.93	7		
ROOSEVELT	7727	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.310	30	-.02	2.05	1		
SEDAN	8016	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.730	30	*****	.94	6		
SNYDER	8299	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.830	30	-1.74	1.22	1		
VINSON 3 WNW	9212	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	.810	30	-2.39	.60	1		
WICHITA MT WLR	9629	7	70.4	29	-2.0	96.	8	41.	24	28.0	15.0	184.0	-51.0	2.010	30	-2.02	.95	1		
WILLOW	9668	7	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.951	30	*****	1.31	6		

**SEPTEMBER 1992 SUMMARY FOR SOUTH CENTRAL DIVISION (CD8)**

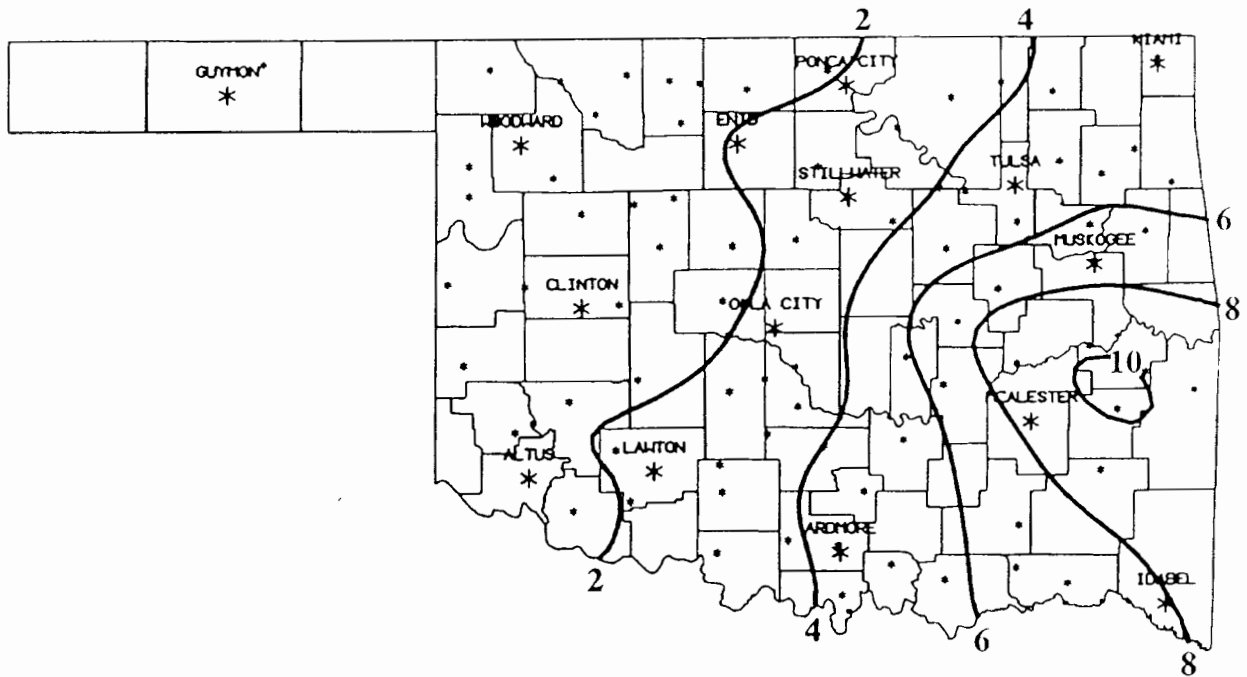
NAME	ID	CD	DEV					HEAT				DEV				TOT	NUM	DEV		DAY
			MEAN	NUM	FROM	MAX	MIN	DEG	FROM	COOL	DEV	DEG	FROM	FROM	FROM			FROM	FROM	
TEMP	OBS	NORM	TEMP	DAY	TEMP	DAY	DAY	NORM	DAY	NORM	DAY	NORM	PPT	OBS	NORM	24-HR	DAY			
ADA	17	8	71.4	30	-2.4	91.	8	47.	29	18.5	10.5	211.0	-61.0	5.610	30	1.15	2.39	6		
ALLEN	147	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.300	30	*****	1.90	7		
ARDMORE	292	8	74.7	30	-1.5	93.	8	48.	30	6.0	1.0	296.0	-45.0	3.390	30	-.78	1.90	10		
ATOKA DAM	394	8	72.8	21	*****	94.	21	46.	30	11.5	*****	174.5	*****	6.991	21	*****	1.89	10		
BOKCHITO	917	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.440	30	*****	3.09	12		
CANEY	1437	8	73.4	30	*****	98.	18	49.	30	5.5	*****	257.5	*****	6.570	30	*****	2.80	2		
CENTRAHOMA	1648	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.300	30	*****	2.00	6		
CHICKASAW NRA	1745	8	73.6	30	-.0	95.	9	44.	29	7.5	-6.5	264.0	-8.0	3.291	30	-1.35	1.42	11		
COLEMAN	2011	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	1.170	30	*****	.75	7		
COMANCHE	2054	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.690	30	-.79	1.56	12		
DAISY 4 ENE	2354	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	7.694	30	2.13	2.93	3		
DUNCAN	2660	8	72.7	30	-1.5	92.	10	44.	23	6.5	-2.5	237.5	-47.5	4.381	30	-.03	3.72	11		
DURANT USDA	2678	8	72.3	30	-1.6	93.	9	44.	30	14.5	4.5	234.5	-42.5	6.050	30	.64	2.30	11		
ELMORE CITY	2872	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.140	30	*****	2.10	20		
FARRIS 3 WNW	3083	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.750	30	1.88	3.00	11		
GRADY	3688	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.250	30	*****	1.51	7		
HEALDTON	4001	8	73.9	30	-.8	94.	8	43.	30	14.5	6.5	283.0	-16.0	5.621	30	1.08	2.43	11		
HENNEPIN	4052	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.480	30	*****	1.30	9		
KETCHUM RANCH	4780	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	2.550	31	*****	1.48	10		
KINGSTON	4865	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.030	30	1.25	2.95	3		
LEHIGH	5108	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.302	30	*****	1.70	11		
LINDSAY 2 W	5216	8	72.9	30	-.7	92.	20	43.	30	20.0	6.0	257.0	-15.0	2.641	30	-1.67	1.49	6		
LOCO 6 SE	5247	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.370	30	*****	2.02	7		
MADILL	5468	8	75.0	30	-.4	95.	19	44.	30	10.5	2.5	311.0	-9.0	4.811	30	-.01	1.91	2		
MARIETTA	5563	8	75.1	30	-.3	95.	18	51.	30	3.5	-4.5	306.5	-13.5	3.311	30	-.88	1.44	11		
MARLOW 1 WSW	5581	8	73.1	30	-.6	94.	20	44.	29	14.5	4.5	257.5	-13.5	2.691	30	-1.64	1.46	11		
MCGEE CREEK DAM	5713	8	71.1	30	*****	93.	19	42.	30	19.5	*****	203.0	*****	7.041	30	*****	2.55	11		
PAULS VALLEY	6926	8	73.3	30	-1.3	92.	20	43.	30	17.0	8.0	265.5	-31.5	5.120	30	1.07	1.50	3		
PONTOTOC	7214	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	4.770	16	*****	1.93	24		
TISHOMINGO NWLR	8884	8	73.5	21	*****	95.	8	45.	24	9.5	*****	188.5	*****	5.060	30	.15	2.77	10		
TUSSY	9032	8	*****	0	*****	****	0	****	0	*****	*****	*****	*****	3.090	30	*****	1.92	11		
WAURIKA	9395	8	74.9	30	-.8	95.	18	41.	27	7.0	7.0	304.0	-22.0	1.570	30	-2.34	.93	11		
WAURIKA DAM	9399	8	73.2	26	*****	96.	21	47.	25	6.5	*****	220.0	*****	3.032	27	*****	1.36	7		

**SEPTEMBER 1992 SUMMARY FOR SOUTHEAST DIVISION (CD9)**

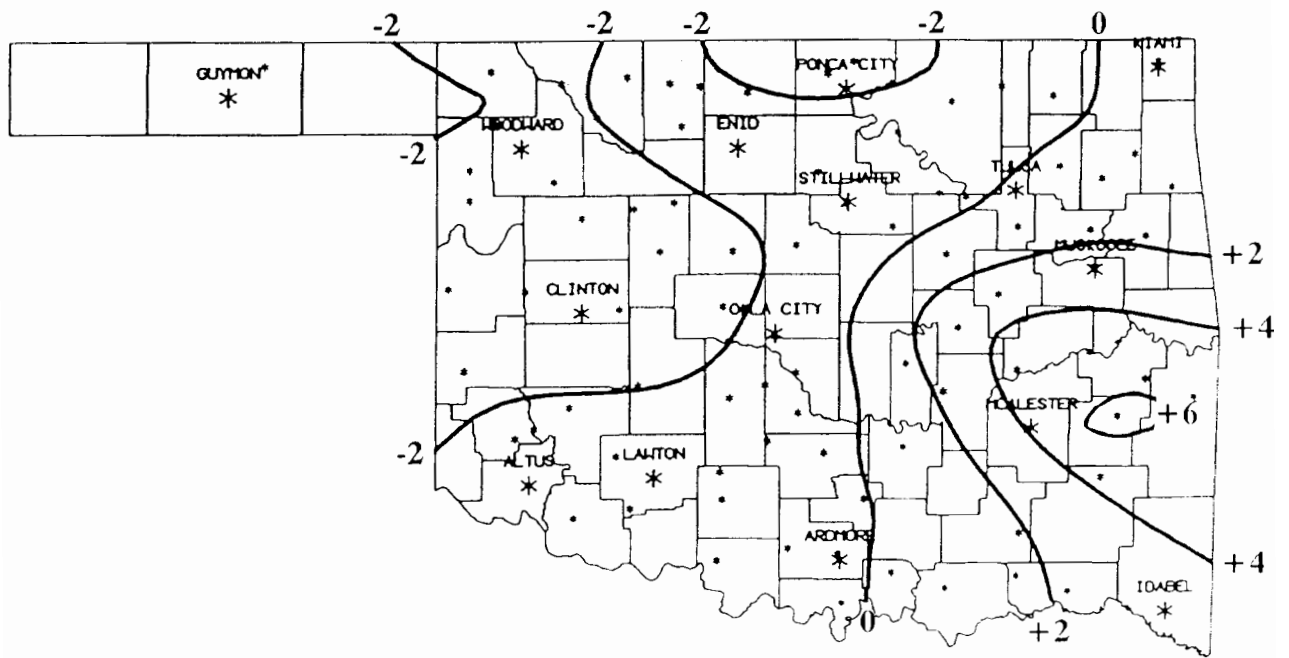
NAME	ID	CD	DEV					HEAT		DEV		COOL		DEV		DEV		
			MEAN	NUM	FROM	MAX	MIN	DEG	FROM	DEG	FROM	DEG	TOT	NUM	FROM	MAX	DAY	
ANTLERS	256	9	73.1	26	*****	92.	18	42.	30	14.0	*****	224.0	*****	5.840	30	1.03	1.62	10
BATTIEST 1 SSW	567	9	67.6	30	*****	87.	18	37.	30	49.0	*****	126.0	*****	12.240	30	*****	3.90	2
BEAR MT TWR	584	9	71.5	30	-2.9	92.	19	45.	24	24.5	16.5	220.5	-69.5	6.820	30	1.64	1.90	2
BENGAL	670	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	9.520	30	*****	1.86	3
BOSWELL 4 NNW	980	9	73.4	29	-1.1	95.	19	44.	25	8.5	-.5	253.5	-40.5	5.142	29	*****	1.47	23
BROKEN BOW 1 N	1162	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	8.270	30	3.73	2.67	21
BROKEN BOW DAM	1168	9	72.4	30	-1.3	93.	19	43.	30	6.0	-2.0	229.0	-40.0	8.091	30	3.38	2.32	2
CARNASAW TWR	1499	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	7.110	30	2.52	2.65	22
CARTER TWR	1544	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	8.770	30	3.98	1.95	3
FANSHAW	3065	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	12.080	30	7.40	2.70	19
FLAGPOLE TWR	3169	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	6.770	30	*****	2.55	2
HEAVENER 1 SE	4008	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	9.103	31	4.53	1.50	19
HEE MT TWR	4017	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	10.830	30	6.21	2.01	2
HUGO	4384	9	73.4	30	-1.8	92.	18	48.	24	5.5	-.5	257.0	-55.0	6.930	30	2.40	1.60	21
IDABEL	4451	9	71.7	30	-2.2	93.	19	39.	30	18.5	10.5	219.0	-56.0	6.591	30	2.40	1.47	21
POTEAU W W	7254	9	71.0	30	*****	92.	19	41.	30	23.5	*****	203.5	*****	7.333	30	*****	1.40	19
SMITHVILLE 1 W	8285	9	71.8	19	*****	89.	18	52.	12	.0	*****	130.0	*****	12.050	30	7.48	2.65	3
SPIRO	8416	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	8.300	30	4.26	1.84	22
TUSKAHOMA	9023	9	71.8	30	-2.4	91.	18	39.	30	27.5	14.5	231.0	-58.0	10.200	30	5.02	3.30	3
VALLIANT 3 W	9118	9	*****	0	*****	****	0	****	0	*****	*****	*****	*****	5.710	30	.74	1.18	2
WILBURTON 9 ENE	9634	9	71.5	30	-1.4	93.	18	41.	30	28.5	13.5	224.0	-28.0	11.781	30	6.89	2.95	2

**SEPTEMBER 1992 CLIMATE DIVISION SUMMARY**

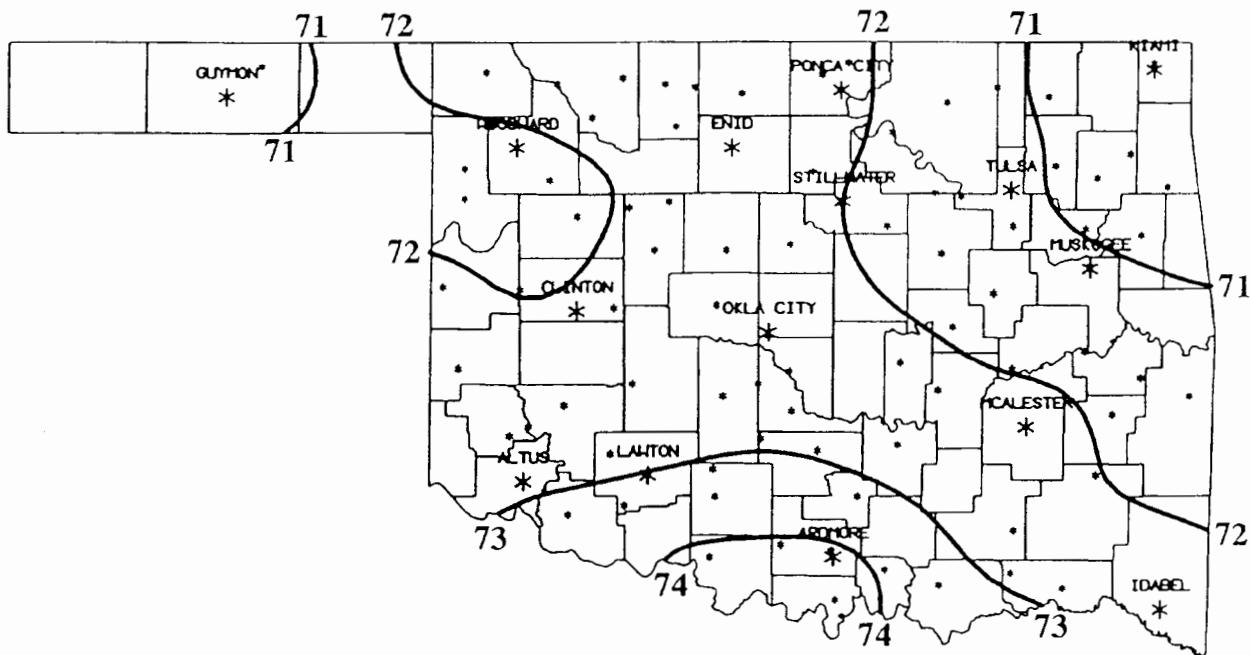
CLIMATE	MEAN	NUM	DEV				HEAT		DEV		COOL		DEV		DEV	
			TEMP	STA	FROM	MAX	MIN	DEGREE	FROM	DEGREE	FROM	DEGREE	TOT	NUM	FROM	MAX
1	70.8	11	1.1	101.0	17	39.0	29	14.5	-14.2	188.6	18.3	.15	12	-1.96	.48	14
2	72.4	14	-.0	98.0	8	35.0	29	15.9	-.3	238.3	-2.3	1.33	20	-2.09	2.93	2
3	71.1	17	-1.2	96.0	26	40.0	24	30.6	9.0	211.7	-26.2	4.42	30	-.45	3.54	21
4	72.3	10	-.1	99.0	5	40.0	30	14.9	-.2	234.1	-5.1	.64	19	-2.66	1.27	6
5	72.5	14	-1.0	96.0	9	41.0	30	14.4	.9	238.4	-28.2	3.43	33	-.79	2.86	6
6	71.5	10	-1.7	94.0	18	40.0	24	23.6	8.0	218.4	-45.4	7.77	28	3.20	4.10	19
7	73.0	10	-1.1	97.0	20	41.0	24	11.1	2.5	250.2	-33.6	1.90	18	-1.73	2.05	1
8	73.4	14	-1.2	98.0	18	41.0	27	11.8	3.1	263.4	-33.0	4.59	30	.03	3.72	11
9	71.6	9	-2.3	95.0	19	37.0	30	21.3	10.4	218.2	-58.4	8.72	20	4.05	3.90	2



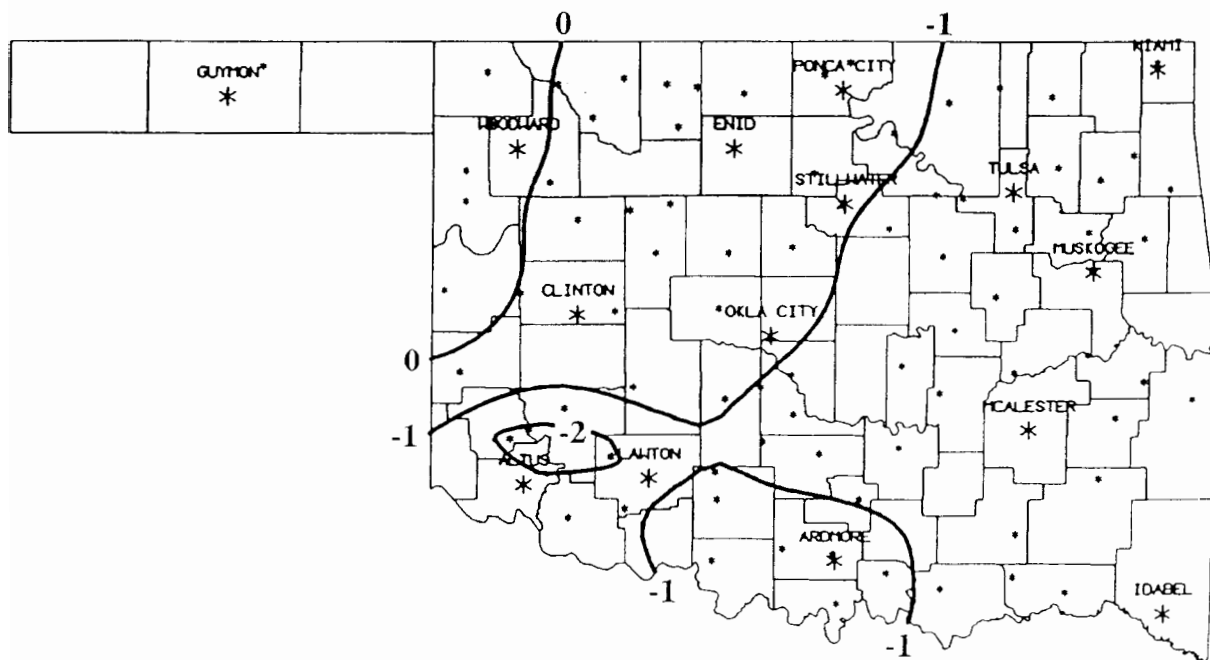
SEPTEMBER 1992 TOTAL PRECIPITATION  
(Inches)



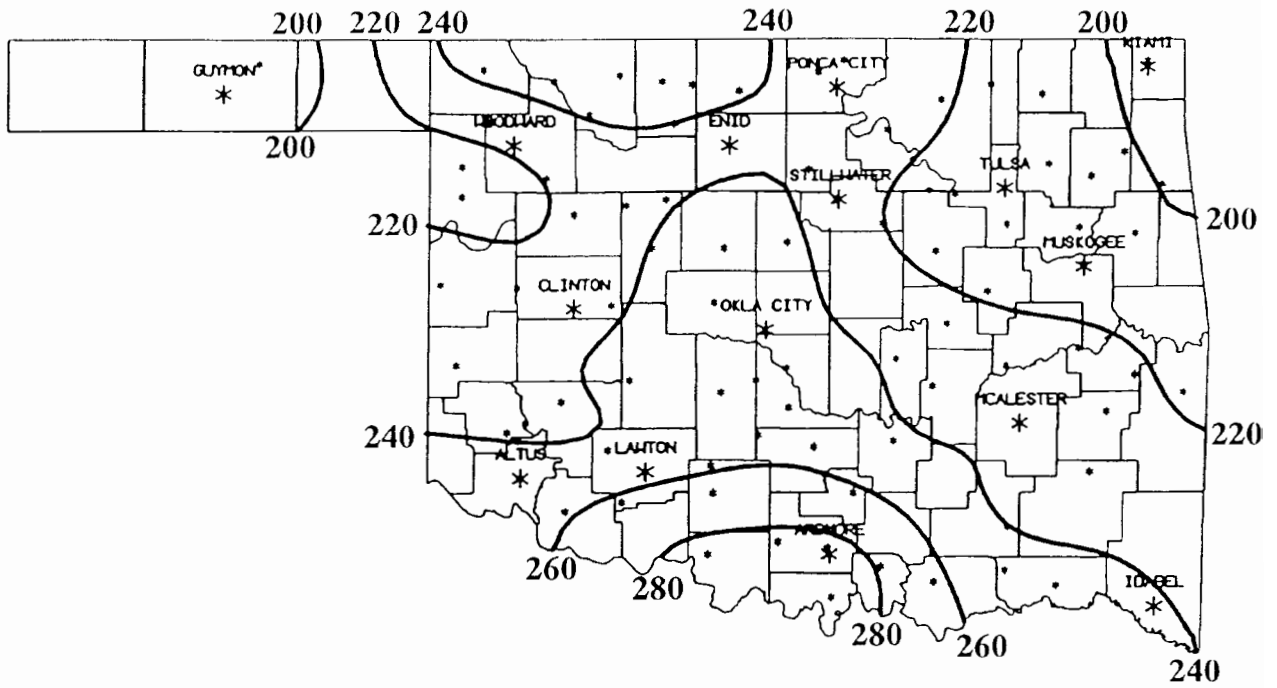
SEPTEMBER 1992 DEVIATION FROM NORMAL PRECIPITATION  
(Inches)



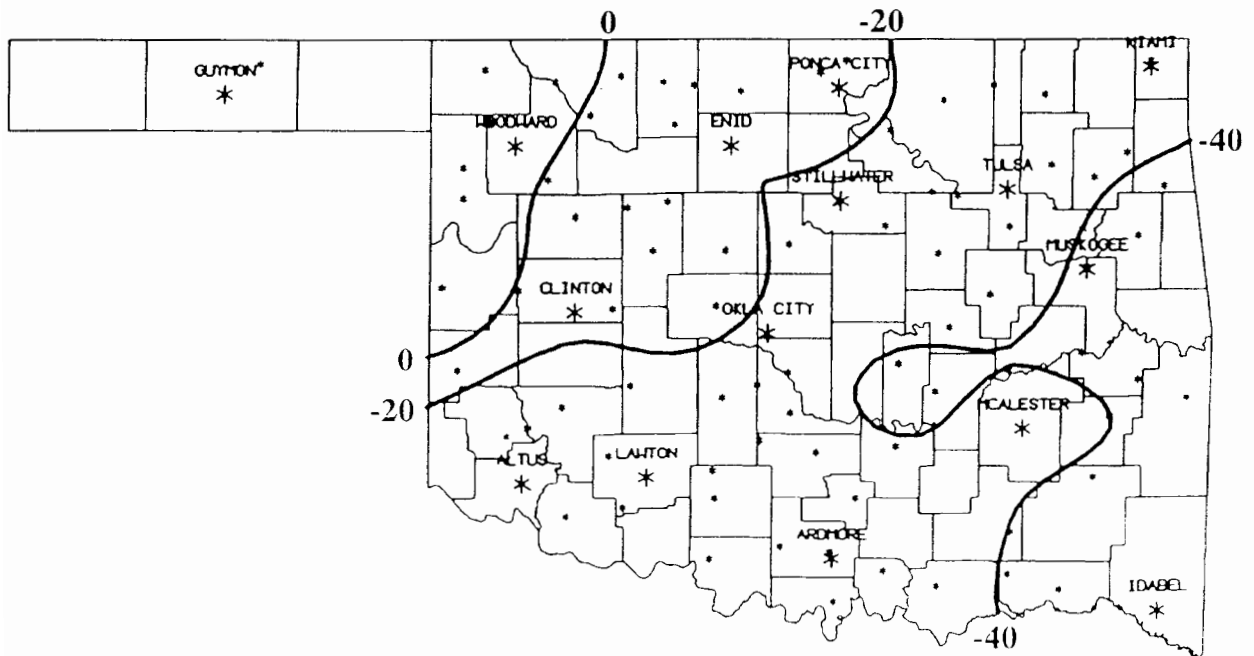
SEPTEMBER 1992 AVERAGE MONTHLY TEMPERATURES  
(Degrees F)



SEPTEMBER 1992 DEVIATION FROM NORMAL TEMPERATURES  
(Degrees F)

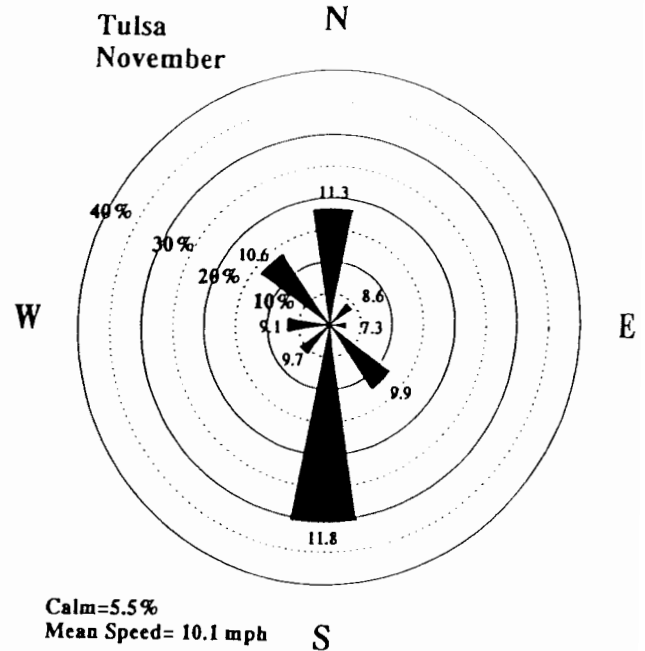
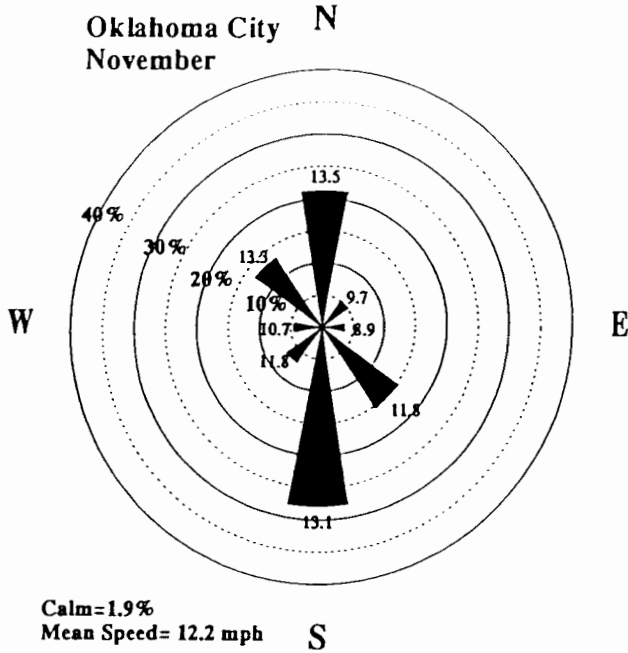


SEPTEMBER 1992 COOLING DEGREE DAYS



SEPTEMBER 1992 DEVIATION FROM NORMAL COOLING DEGREE DAYS

November wind roses for Oklahoma City and Tulsa. Percents represent the percentage of 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.



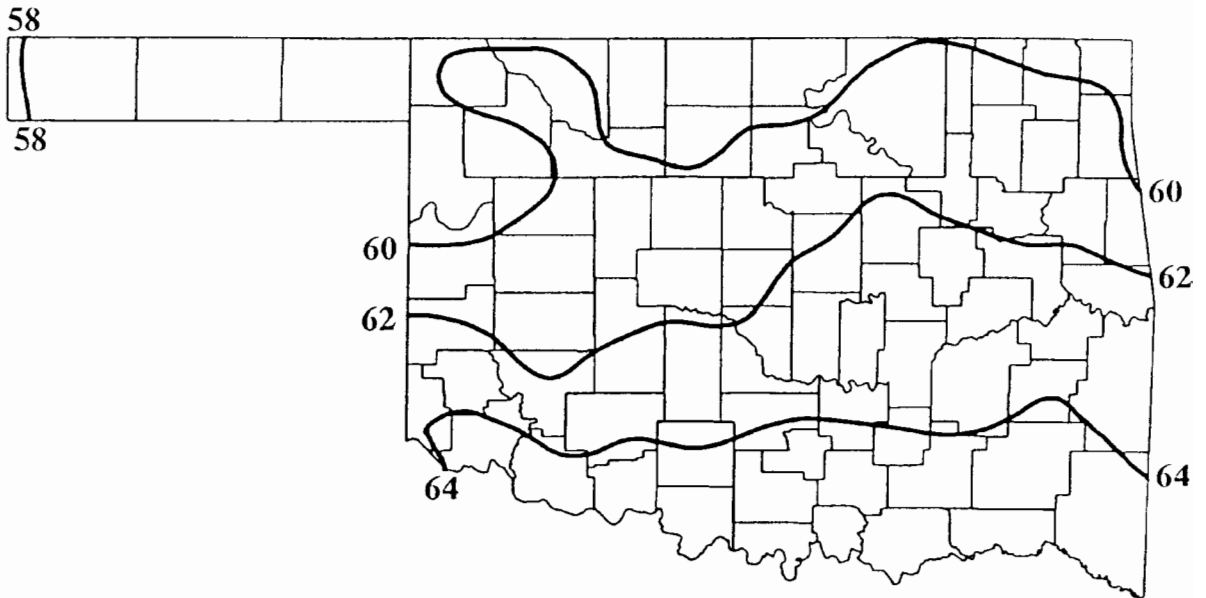
NOVEMBER 1992 SUNRISE AND SUNSET

OKLAHOMA CITY

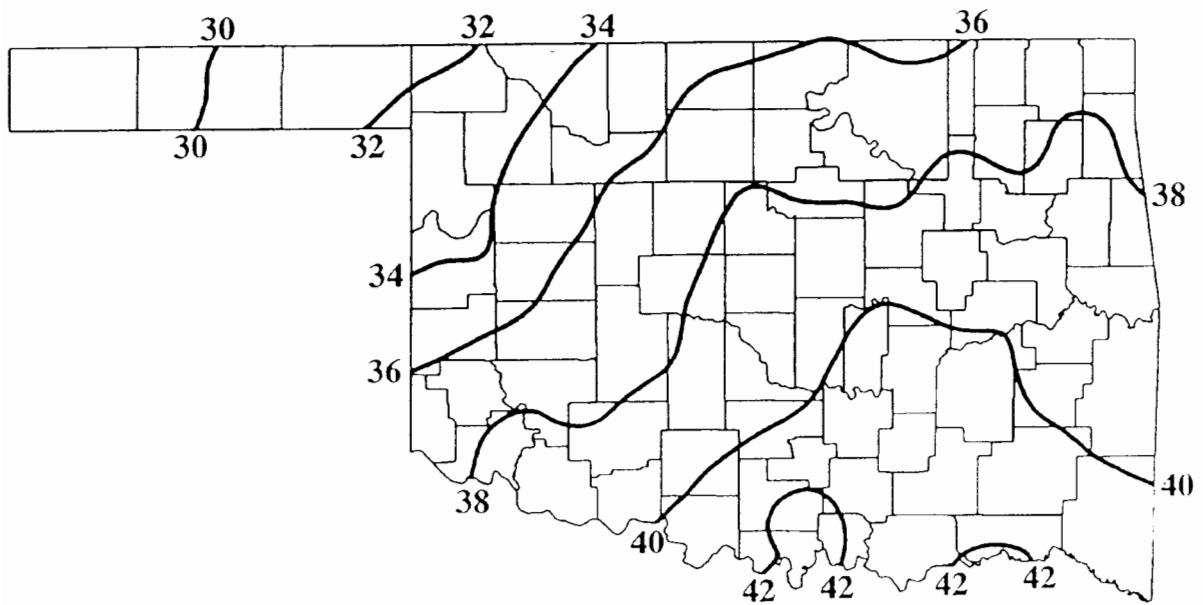
DATE	SUNRISE	SUNSET	DAYLIGHT
9211 1	6:52AM	5:37PM CST	10 hrs 45 mins
9211 2	6:52AM	5:36PM CST	10 hrs 43 mins
9211 3	6:53AM	5:35PM CST	10 hrs 41 mins
9211 4	6:54AM	5:34PM CST	10 hrs 39 mins
9211 5	6:55AM	5:33PM CST	10 hrs 38 mins
9211 6	6:56AM	5:32PM CST	10 hrs 36 mins
9211 7	6:57AM	5:31PM CST	10 hrs 34 mins
9211 8	6:58AM	5:31PM CST	10 hrs 32 mins
9211 9	6:59AM	5:30PM CST	10 hrs 31 mins
921110	7: 0AM	5:29PM CST	10 hrs 29 mins
921111	7: 1AM	5:29PM CST	10 hrs 27 mins
921112	7: 2AM	5:28PM CST	10 hrs 26 mins
921113	7: 3AM	5:27PM CST	10 hrs 24 mins
921114	7: 4AM	5:27PM CST	10 hrs 22 mins
921115	7: 5AM	5:26PM CST	10 hrs 21 mins
921116	7: 6AM	5:25PM CST	10 hrs 19 mins
921117	7: 7AM	5:25PM CST	10 hrs 18 mins
921118	7: 8AM	5:24PM CST	10 hrs 16 mins
921119	7: 9AM	5:24PM CST	10 hrs 15 mins
921120	7:10AM	5:24PM CST	10 hrs 13 mins
921121	7:11AM	5:23PM CST	10 hrs 12 mins
921122	7:12AM	5:23PM CST	10 hrs 11 mins
921123	7:13AM	5:22PM CST	10 hrs 9 mins
921124	7:14AM	5:22PM CST	10 hrs 8 mins
921125	7:15AM	5:22PM CST	10 hrs 7 mins
921126	7:16AM	5:22PM CST	10 hrs 6 mins
921127	7:17AM	5:21PM CST	10 hrs 5 mins
921128	7:18AM	5:21PM CST	10 hrs 4 mins
921129	7:18AM	5:21PM CST	10 hrs 2 mins
921130	7:19AM	5:21PM CST	10 hrs 1 mins

TULSA

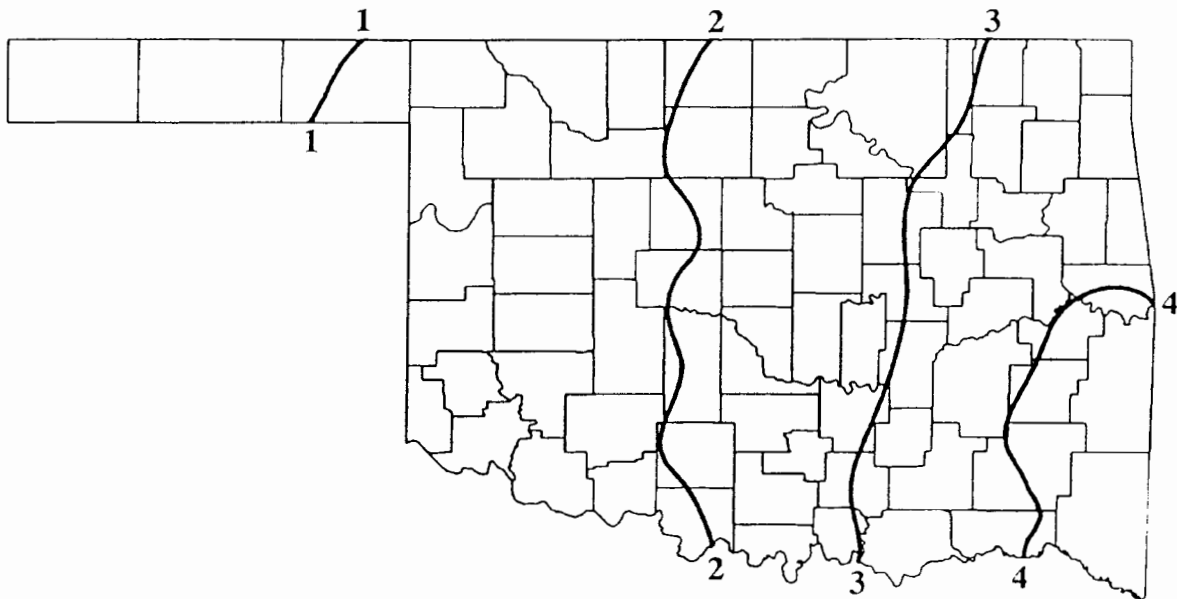
DATE	SUNRISE	SUNSET	DAYLIGHT
9211 1	6:46AM	5:29PM CST	10 hrs 43 mins
9211 2	6:47AM	5:28PM CST	10 hrs 41 mins
9211 3	6:48AM	5:27PM CST	10 hrs 39 mins
9211 4	6:49AM	5:26PM CST	10 hrs 37 mins
9211 5	6:50AM	5:25PM CST	10 hrs 35 mins
9211 6	6:51AM	5:24PM CST	10 hrs 33 mins
9211 7	6:52AM	5:23PM CST	10 hrs 31 mins
9211 8	6:53AM	5:23PM CST	10 hrs 30 mins
9211 9	6:54AM	5:22PM CST	10 hrs 28 mins
921110	6:55AM	5:21PM CST	10 hrs 26 mins
921111	6:56AM	5:20PM CST	10 hrs 24 mins
921112	6:57AM	5:20PM CST	10 hrs 23 mins
921113	6:58AM	5:19PM CST	10 hrs 21 mins
921114	6:59AM	5:18PM CST	10 hrs 19 mins
921115	7: 0AM	5:18PM CST	10 hrs 18 mins
921116	7: 1AM	5:17PM CST	10 hrs 16 mins
921117	7: 2AM	5:17PM CST	10 hrs 15 mins
921118	7: 3AM	5:16PM CST	10 hrs 13 mins
921119	7: 4AM	5:16PM CST	10 hrs 12 mins
921120	7: 5AM	5:15PM CST	10 hrs 10 mins
921121	7: 6AM	5:15PM CST	10 hrs 9 mins
921122	7: 7AM	5:14PM CST	10 hrs 7 mins
921123	7: 8AM	5:14PM CST	10 hrs 6 mins
921124	7: 9AM	5:14PM CST	10 hrs 5 mins
921125	7:10AM	5:13PM CST	10 hrs 3 mins
921126	7:11AM	5:13PM CST	10 hrs 2 mins
921127	7:12AM	5:13PM CST	10 hrs 1 mins
921128	7:13AM	5:12PM CST	10 hrs 0 mins
921129	7:13AM	5:12PM CST	9 hrs 59 mins
921130	7:14AM	5:12PM CST	9 hrs 58 mins



**NOVEMBER 30-YEAR MEAN DAILY MAXIMUM TEMPERATURE**



**NOVEMBER 30-YEAR MEAN DAILY MINIMUM TEMPERATURE**



**NOVEMBER 30-YEAR MEAN MONTHLY PRECIPITATION**

**90-DAY NATIONAL WEATHER SERVICE OUTLOOK**

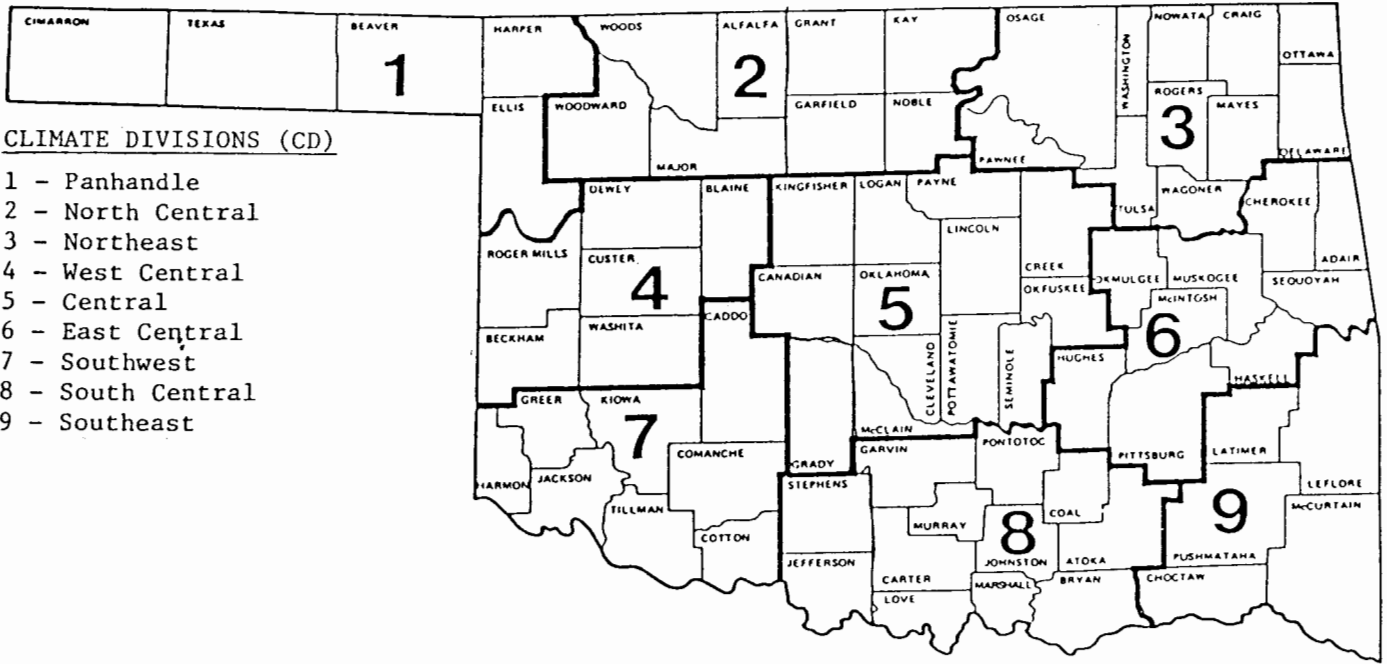
**(October - December 1992)**

**Precipitation - Near Normal Panhandle  
Above Normal Elsewhere**

**Temperature - Below 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:

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

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.



The data on this calendar are for Tulsa. Normal values are calculated for the period 1948-1991. Temperature extremes are for the period 1905-1992; precipitation extremes are for the period 1948-1991.

**TULSA CLIMATE CALENDAR**  
**November 1992**

Normal 1		Actual		Normal 2		Actual		Normal 3		Actual		Normal 4		Actual		Normal 5		Actual		Normal 6		Actual		Normal 7		Actual		
69.0	max	46.0	min	65.0	max	44.0	min	63.0	max	41.0	min	64.0	max	42.0	min	62.0	max	41.0	min	62.0	max	41.0	min	63.0	max	41.0	min	
.09	ppt	.09	ppt	.17	ppt	.17	ppt	.08	ppt	.08	ppt	.08	ppt	.02	ppt	.02	ppt	.02	ppt	.06	ppt	.06	ppt	.03	ppt	.03	ppt	
8	hdd	8	hdd	11	hdd	11	hdd	13	hdd	13	hdd	12	hdd	13	hdd	13	hdd	13	hdd	14	hdd	14	hdd	13	hdd	13	hdd	
1	cdd	1	cdd	0	cdd	0	cdd	1	cdd	1	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	0	cdd	0	cdd	0	cdd	0	cdd
	Highest Max	85-1916			Highest Max	89-1909			Highest Max	88-1909			Highest Max	86-1914			Highest Max	87-1914			Highest Max	87-1945			Highest Max	85-1980		
	Lowest Max	37-1991			Lowest Max	27-1991			Lowest Max	36-1991			Lowest Max	39-1951			Lowest Max	34-1951			Lowest Max	39-1959			Lowest Max	41-1991		
	Lowest Min	25-1991			Lowest Min	20-1966			Lowest Min	16-1991			Lowest Min	21-1991			Lowest Min	25-1976			Lowest Min	20-1959			Lowest Min	22-1991		
	Highest Min	64-1987			Highest Min	65-1983			Highest Min	67-1983			Highest Min	60-1987			Highest Min	60-1965			Highest Min	60-1965			Highest Min	60-1966		
	Greatest ppt	1.27-1984			Greatest ppt	2.82-1974			Greatest ppt	3.20-1974			Greatest ppt	1.25-1986			Greatest ppt	3.2-1974			Greatest ppt	90-1964			Greatest ppt	60-1966		
	Normal 8		Actual		Normal 9		Actual		Normal 10		Actual		Normal 11		Actual		Normal 12		Actual		Normal 13		Actual		Normal 14		Actual	
64.0	max	43.0	min	63.0	max	40.0	min	63.0	max	39.0	min	62.0	max	40.0	min	63.0	max	40.0	min	65.0	max	39.0	min	62.0	max	41.0	min	
.09	ppt	.09	ppt	.04	ppt	.06	ppt	.06	ppt	.14	ppt	.03	ppt	.03	ppt	.09	ppt	.09	ppt	.07	ppt	.07	ppt	.06	ppt	.06	ppt	
12	hdd	12	hdd	13	hdd	13	hdd	14	hdd	14	hdd	10	hdd	14	hdd	13	hdd	13	hdd	13	hdd	13	hdd	13	hdd	14	hdd	
0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	0	cdd	0	cdd	0	cdd	0	cdd
	Highest Max	84-1980			Highest Max	82-1934			Highest Max	83-1949			Highest Max	85-1989			Highest Max	80-1989			Highest Max	84-1910			Highest Max	79-1989		
	Lowest Max	41-1991			Lowest Max	42-1950			Lowest Max	37-1950			Lowest Max	31-1986			Lowest Max	34-1986			Lowest Max	30-1986			Lowest Max	33-1959		
	Lowest Min	16-1991			Lowest Min	23-1955			Lowest Min	21-1950			Lowest Min	17-1950			Lowest Min	15-1911			Lowest Min	12-1940			Lowest Min	13-1916		
	Highest Min	67-1966			Highest Min	58-1984			Highest Min	62-1949			Highest Min	60-1949			Highest Min	62-1951			Highest Min	62-1989			Highest Min	62-1958		
	Greatest ppt	1.45-1977			Greatest ppt	.55-1974			Greatest ppt	.63-1986			Greatest ppt	1.11-1988			Greatest ppt	2.64-1972			Greatest ppt	1.80-1985			Greatest ppt	1.08-1978		
	Normal 15		Actual		Normal 16		Actual		Normal 17		Actual		Normal 18		Actual		Normal 19		Actual		Normal 20		Actual		Normal 21		Actual	
63.0	max	42.0	min	61.0	max	40.0	min	60.0	max	39.0	min	58.0	max	39.0	min	60.0	max	38.0	min	58.0	max	36.0	min	58.0	max	35.0	min	
.25	ppt	.13	ppt	.06	ppt	.15	ppt	.14	ppt	.16	ppt	.09	ppt	.16	ppt	.17	ppt	.17	ppt	.20	ppt	.20	ppt	.03	ppt	.03	ppt	
13	hdd	13	hdd	15	hdd	15	hdd	16	hdd	16	hdd	16	hdd	16	hdd	16	hdd	16	hdd	18	hdd	18	hdd	18	hdd	18	hdd	
0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	0	cdd	0	cdd	0	cdd	0	cdd
	Highest Max	82-1950			Highest Max	83-1963			Highest Max	80-1969			Highest Max	82-1930			Highest Max	81-1908			Highest Max	81-1989			Highest Max	79-1927		
	Lowest Max	38-1976			Lowest Max	37-1955			Lowest Max	32-1959			Lowest Max	37-1972			Lowest Max	35-1972			Lowest Max	38-1972			Lowest Max	34-1964		
	Lowest Min	11-1940			Lowest Min	14-1932			Lowest Min	11-1959			Lowest Min	19-1951			Lowest Min	14-1937			Lowest Min	16-1937			Lowest Min	18-1964		
	Highest Min	63-1964			Highest Min	65-1958			Highest Min	55-1975			Highest Min	60-1985			Highest Min	61-1979			Highest Min	62-1979			Highest Min	53-1966		
	Greatest ppt	2.50-1964			Greatest ppt	1.49-1978			Greatest ppt	1.24-1952			Greatest ppt	1.26-1964			Greatest ppt	1.65-1963			Greatest ppt	4.59-1979			Greatest ppt	70-1961		
	Normal 22		Actual		Normal 23		Actual		Normal 24		Actual		Normal 25		Actual		Normal 26		Actual		Normal 27		Actual		Normal 28		Actual	
59.0	max	37.0	min	58.0	max	35.0	min	56.0	max	35.0	min	60.0	max	37.0	min	57.0	max	36.0	min	52.0	max	33.0	min	50.0	max	31.0	min	
.07	ppt	.17	ppt	.02	ppt	.16	ppt	.16	ppt	.20	ppt	.07	ppt	.16	ppt	.11	ppt	.08	ppt	.08	ppt	.08	ppt	.03	ppt	.03	ppt	
17	hdd	17	hdd	18	hdd	18	hdd	20	hdd	20	hdd	16	hdd	16	hdd	18	hdd	18	hdd	23	hdd	23	hdd	25	hdd	25	hdd	
0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	0	cdd	0	cdd	0	cdd	0	cdd
	Highest Max	79-1966			Highest Max	78-1974			Highest Max	80-1965			Highest Max	84-1965			Highest Max	83-1965			Highest Max	77-1927			Highest Max	81-1949		
	Lowest Max	36-1971			Lowest Max	33-1970			Lowest Max	36-1950			Lowest Max	38-1975			Lowest Max	30-1975			Lowest Max	35-1985			Lowest Max	28-1976		
	Lowest Min	16-1923			Lowest Min	17-1970			Lowest Min	14-1950			Lowest Min	17-1950			Lowest Min	18-1975			Lowest Min	16-1938			Lowest Min	13-1976		
	Highest Min	62-1966			Highest Min	63-1966			Highest Min	61-1966			Highest Min	61-1966			Highest Min	65-1990			Highest Min	56-1960			Highest Min	60-1991		
	Greatest ppt	90-1982			Greatest ppt	.35-1952			Greatest ppt	2.54-1973			Greatest ppt	1.03-1986			Greatest ppt	1.56-1982			Greatest ppt	1.13-1982			Greatest ppt	53-1968		
	Normal 29		Actual		Normal 30		Actual		Normal 30		Actual		Normal 30		Actual		Normal 30		Actual		Normal 30		Actual		Normal 30		Actual	
53.0	max	30.0	min	54.0	max	31.0	min	54.0	max	30.0	min	54.0	max	31.0	min	54.0	max	31.0	min	54.0	max	31.0	min	54.0	max	31.0	min	
.05	ppt	.05	ppt	.03	ppt	.03	ppt	.03	ppt	.03	ppt	.03	ppt	.03	ppt	.03	ppt	.03	ppt	.03	ppt	.03	ppt	.03	ppt	.03	ppt	
23	hdd	23	hdd	23	hdd	23	hdd	23	hdd	23	hdd	23	hdd	23	hdd	23	hdd	23	hdd	23	hdd	23	hdd	23	hdd	23	hdd	
0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	cdd	0	0	cdd	0	cdd	0	cdd	0	cdd
	Highest Max	82-1927			Highest Max	76-1933			Highest Max	80-1965			Highest Max	84-1965			Highest Max	83-1965			Highest Max	77-1927			Highest Max	81-1949		
	Lowest Max	36-1979			Lowest Max	33-1974			Lowest Max	36-1950			Lowest Max	38-1975			Lowest Max	30-1975			Lowest Max	35-1985			Lowest Max	28-1976		
	Lowest Min	10-1976			Lowest Min	13-1964			Lowest Min	14-1950			Lowest Min	17-1950			Lowest Min	18-1975			Lowest Min	16-1938			Lowest Min	13-1976		
	Highest Min	54-1975			Highest Min	55-1970			Highest Min	61-1966			Highest Min	61-1966			Highest Min	65-1990			Highest Min	56-1960			Highest Min	60-1991		
	Greatest ppt	1.08-1975			Greatest ppt	.73-1991			Greatest ppt	2.54-1973			Greatest ppt	1.03-1986			Greatest ppt	1.56-1982			Greatest ppt	1.13-1982			Greatest ppt	53-1968		

**NOVEMBER AVERAGES**

TEMPERATURE : 49.3°F  
 PRECIPITATION : 2.62"  
 HEATING DEGREE DAYS : 472  
 COOLING DEGREE DAYS : 2