OKLAHOMA
MONTHLY SUMMARY
FEBRUARY 1993

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MONTHLY SUMMARY FOR FEBRUARY 1993

A pair of major winter storms during February brought bitter cold and snow to northern sections of the state and rain elsewhere, continuing the cool, moist pattern that characterized the winter of 1992-93. The statewide average monthly precipitation of 2.96 inches (the 10th highest February total in 102 years) exceeded normal precipitation by 1.23 inches. The average temperature was 39.3 degrees, which is two degrees below normal. The combined figures for the three winter months indicate a winter slightly cooler and much wetter than normal. Total precipitation during the three winter months averaged 8.94 inches, 4.24 inches above normal for the season and second only to the winter of 1984-85. The average temperature of 38.5 degrees over the three months was one-half degree below normal.

An upper level disturbance spread cloudiness and precipitation across the state from the third through the fifth, producing up to 1.80 inches of precipitation over two days at Oilton.

A very strong winter storm developed over the Oklahoma and Texas panhandles on the 9th and 10th, producing 4 inches of snow at Boise City and 2 to 3 inches in the Guymon area. Accompanying winds in excess of 45 miles per hour caused considerable blowing snow, reducing visibilities. Freezing rain and sleet reported far south as Harmon County in the west and extending eastward into central Oklahoma made travel. An icy overpass in Oklahoma City was the scene of a 22 vehicle accident. Rain over the rest of the state produced several one-day amounts in excess of one inch, topped by the 1.87 inches reported at Hugo on the morning of the 11th.

The weekend of Valentine's Day was notable for another major storm which developed over southeastern New Mexico and moved rapidly to the northeast, pulling frigid Arctic air from the High Plains in behind it. Snowfall reports on the morning of the 15th included 10 inches at Miami, 9 inches at Muskogee, 8.5 inches at Hooker (nearly 13 inches over two days) and 7.5 inches at Nowata. Laverne received slightly more than 8 inches spread over two reporting days, bringing its accumulated reported snowfall to just over 50 inches since November 22. The snow extended into central Oklahoma and a trace of snow were was reported as far southeast as Tuskahoma.

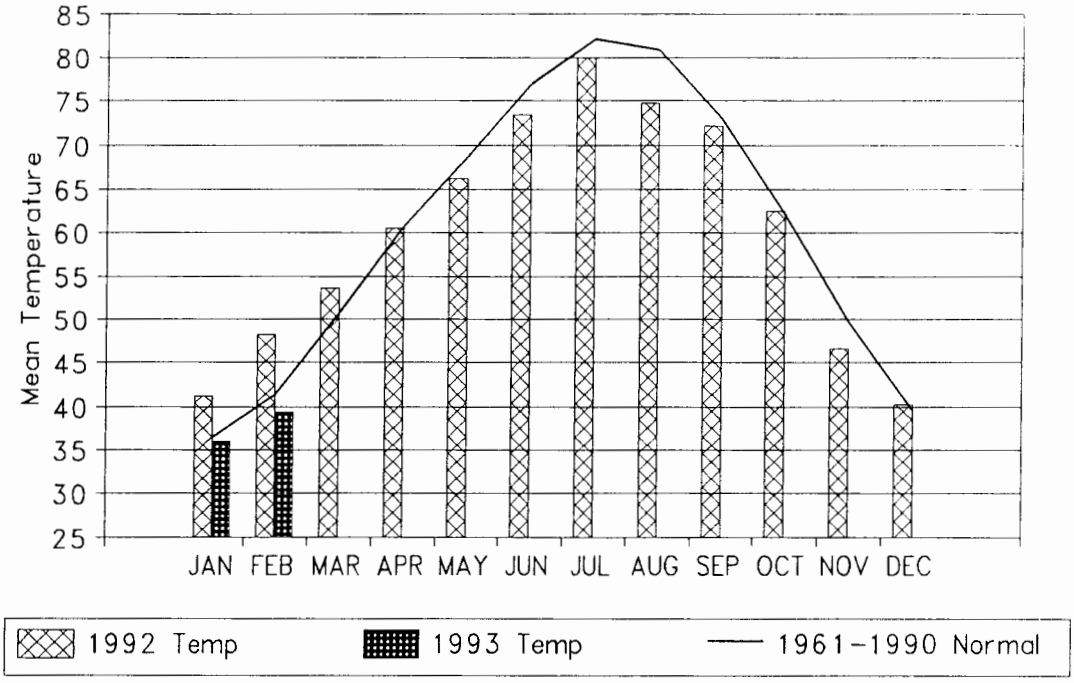
Precipitation reports associated with the rain that fell on most of southern and central Oklahoma included a number of two inch or greater daily totals, led by 2.90 inches at Walters and Duncan and 2.85 inches at Wewoka, all reported on the morning of the 15th. Cold air spread over the entire state, lowering temperatures to below freezing even in the southeast and to below zero (-4 at Taloga on the 18th) in the north where the snow cover intensified the cold.

Slowly moderating temperatures followed the mid-month snowstorm, interrupted by an episode of freezing rain across northern Oklahoma on the 24th and reports of sleet as far south as Rush Springs and Bengal on the 24th, along with 2 inches of precipitation at Wetumka (24th) and Bixby (25th).

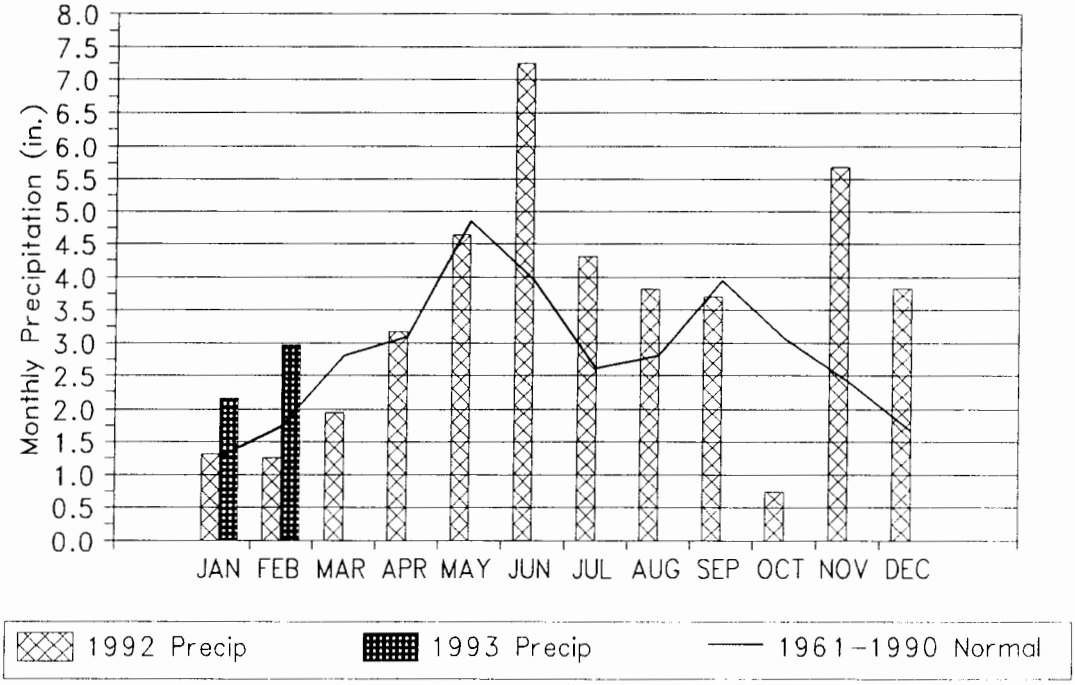
Another, though weaker, system moved through the state on the 26th and 27th, returning overnight low temperatures in the northwest to the lower teens by the morning of the 26th. Southern Oklahoma, though warmer, remained wet as Bokchito reported 1.44 inches of precipitation on the 26th and Madill noted 1.12 inches and Boynton one inch on the 28th.

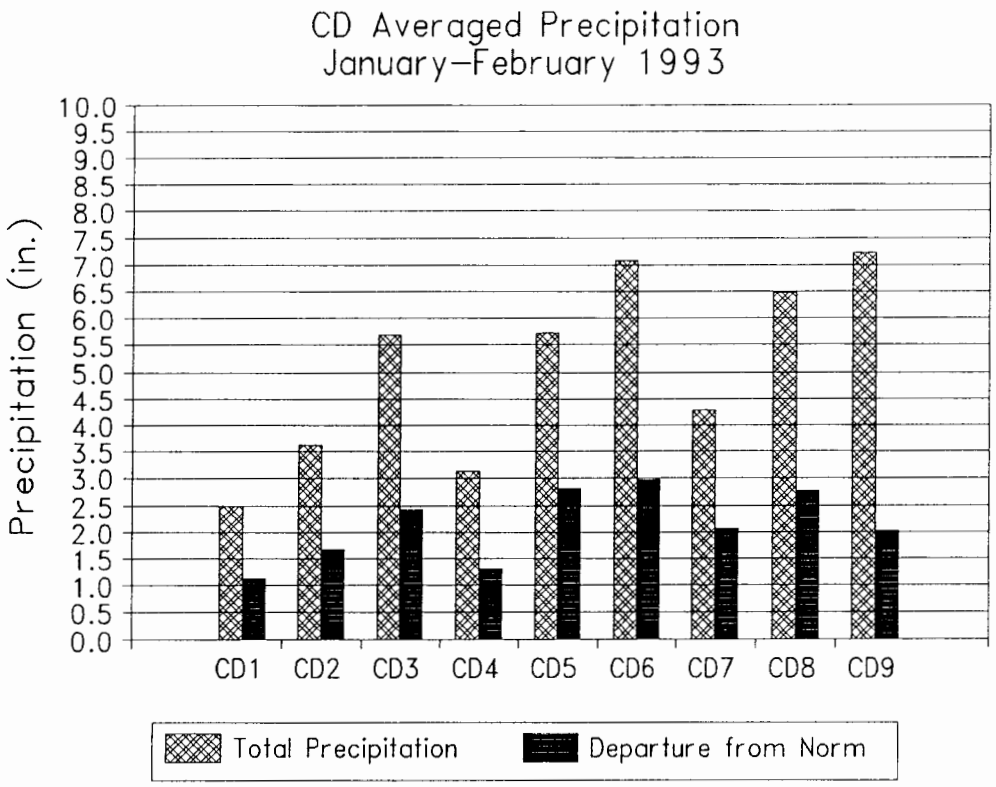
Howard L. Johnson

1992 and 1993 STATEWIDE TEMPERATURES
Monthly Averages

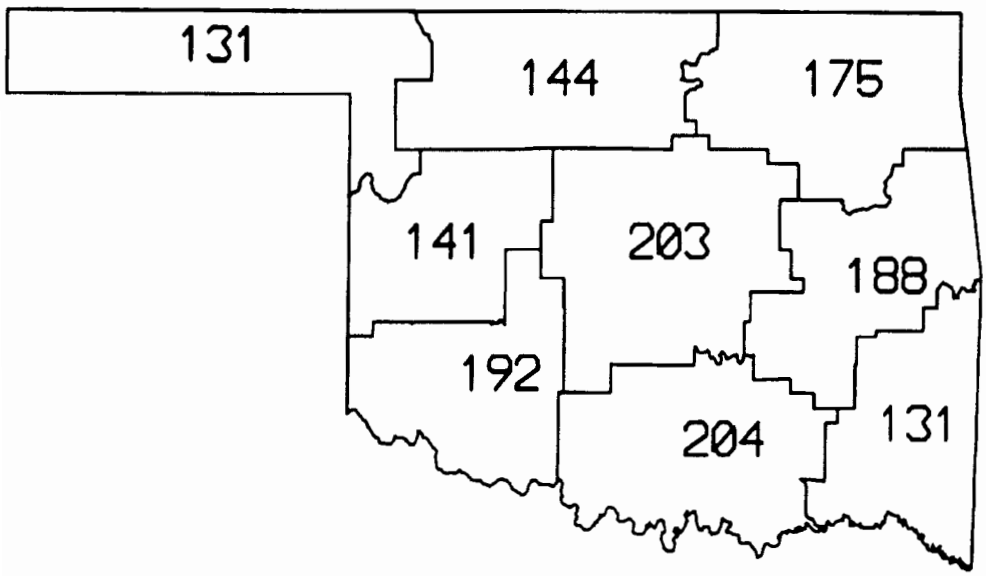


1992 and 1993 STATEWIDE PRECIPITATION
Monthly Totals





CD PERCENT OF NORMAL PRECIPITATION



FEBRUARY 1993

EXTREME VALUES OF TEMPERATURE AND PRECIPITATION IN EACH CLIMATE DIVISION
FEBRUARY, 1993

CD	MAX TEMP	DATE	LOCATION	MIN TEMP	DATE	LOCATION	24-HOUR PRECIP	DATE	LOCATION	MONTHLY PRECIP	LOCATION
1	76	20	GAGE	-3	18	GAGE	.90	16	HOOKER	1.93	LAVERNE
2	76	20	WAYNOKA	-2	18	FREEDOM	.94	3	JEFFERSON	2.52	BRAMAN
				-2	19	FREEDOM					
				-2	18	MUTUAL					
				-2	18	WAYNOKA					
3	77	20	CLEVELAND	-2	18	HULAH DAM	2.35	16	HOLLOW	4.86	JAY TOWER
				-2	19	HULAH DAM					
4	80	21	WEATHERFORD	-4	18	TALOGA	1.20	10	RETROP	2.45	RETROP
5	79	20	CHICKASHA	2	18	HENNESSEY	2.80	15	WEWOKA	8.01	WEWOKA
	79	20	GUTHRIE								
6	76	20	MCALESTER	4	18	TAHLEQUAH	2.30	15	TAHLEQUAH	5.95	HOLDENVILLE
7	82	20	CARNEGIE	10	18	WICHITA MT	2.90	15	WALTERS	4.19	DUNCAN 12 W
8	80	20	HEALDTON	9	18	ADA	2.90	15	DUNCAN	6.06	ELMORE CITY
	80	20	PAULS VALLEY								
	80	20	WAURIKA								
9	72	1	ANTLERS	10	18	WILBURTON	1.87	11	HUGO	5.64	HUGO
	72	20	BOSWELL								

TABLE OF 1992/1993 COMPARISONS

Station	February Temperatures (F) 1992	1993	February Pricipitation (in.) 1992	1993
Arnett	43.4	33.9	.14	1.36
Enid	46.1	36.7	.27	1.75
Mutual	45.2	34.3	.53	1.05
Tulsa	50.3	40.5	1.32	2.56
Elk City	48.5	38.4	.74	1.68
Oklahoma City	50.7	38.8	1.28	2.80
McAlester	51.3	43.6	.92	3.83
Altus Irr Sta	48.8	42.5	1.61	2.20
Durant	51.4	43.0	2.64	5.62
Ada	49.9	41.7	.90	5.14
Antlers	50.6	43.8	2.80	3.89

EXTREMES

Variable	Station	Division	Observation	Date
Minimum temperature (F)	Beaver	1	-04	18
	Kenton	1	-04	18
Maximum temperature (F)	Carnegie	7	82	20
Maximum 24-hour precipitation	Idabel	9	3.10"	25

FEBRUARY 1993 SUMMARY FOR NORTHWEST DIVISION (CD1)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ARNETT	332	1	33.9	28	-3.2	73.	21	5.	18	871.0	90.0	.0	.0	1.362	28	.35	.66	15
BEAVER	593	1	32.0	28	-4.0	71.	21	-4.	18	925.0	113.0	.0	.0	1.812	28	1.03	.73	15
BOISE CITY 2 E	908	1	36.9	28	-1.1	66.	22	1.	18	787.0	31.0	.0	.0	1.233	28	.74	.54	2
BUFFALO	1243	1	37.8	28	-2.2	71.	7	-2.	18	761.0	61.0	.0	.0	.450	28	-.59	.30	10
FARGO	3070	1	*****	0	*****	****	0	****	0	******	******	******	******	1.341	22	*****	.56	15
GAGE FAA APT	3407	1	36.0	28	-2.9	76.	20	-3.	18	811.5	80.5	.0	.0	1.067	28	.23	.48	15
GATE	3489	1	33.1	28	-4.3	71.	8	-2.	18	893.0	120.0	.0	.0	2.022	28	1.18	.65	15
GOODWELL RES ST	3628	1	33.9	28	-2.2	70.	21	3.	18	870.0	61.0	.0	.0	.333	28	-.09	.32	15
GUYMON	3835	1	36.6	15	*****	69.	9	6.	18	426.5	******	.0	******	.001	19	*****	.00	18
HOOKER	4298	1	32.8	28	-4.9	69.	21	2.	18	901.5	137.5	.0	.0	1.135	28	.55	.90	16
KENTON	4766	1	32.8	26	*****	66.	21	-4.	18	837.5	******	.0	******	.722	28	.37	.42	13
LAVERNE	5045	1	*****	0	*****	****	0	****	0	******	******	******	******	1.932	28	.96	.79	15
OPTIMA LAKE	6740	1	32.9	28	*****	71.	21	3.	18	898.5	******	.0	******	.663	28	*****	.59	16
REGNIER	7534	1	*****	0	*****	****	0	****	0	******	******	******	******	.862	28	.54	.45	14
TURPIN 4 SSE	9017	1	32.6	28	*****	67.	10	-2.	18	906.0	******	.0	******	.861	27	*****	.50	15

FEBRUARY 1993 SUMMARY FOR NORTH CENTRAL DIVISION (CD2)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ALVA	193	2	35.9	28	*****	68.	7	0.	18	816.0	******	.0	******	1.620	28	*****	.55	15
VANCE AFB	302	2	*****	0	*****	****	0	****	0	******	******	******	******	1.333	26	*****	.41	15
BILLINGS	755	2	34.8	28	-3.0	69.	9	3.	19	844.5	82.5	.0	.0	1.811	28	.42	.76	15
BLACKWELL 2E	818	2	36.0	28	-2.2	68.	8	3.	18	813.0	63.0	.0	.0	2.122	28	1.05	.55	15
BRAMAN	1075	2	*****	0	*****	****	0	****	0	******	******	******	******	2.521	27	*****	.90	3
CEDARDALE	1620	2	*****	0	*****	****	0	****	0	******	******	******	******	1.426	28	*****	.65	15
CHEROKEE	1724	2	37.0	28	-2.7	65.	9	5.	18	783.5	75.5	.0	.0	.750	28	-.40	.50	10
ENID	2912	2	36.7	28	-3.4	71.	20	4.	18	792.5	95.5	.0	.0	1.750	28	.34	.79	15
FT SUPPLY DAM	3304	2	33.8	28	-3.3	74.	21	-2.	18	874.5	93.5	.0	.0	1.152	28	.19	.52	15
FREEDOM	3358	2	33.7	28	-5.6	75.	21	-2.	19	877.5	157.5	.0	.0	1.840	28	.96	.80	11
GREAT SALT PLNS	3740	2	34.5	25	*****	66.	10	3.	18	763.0	******	.0	******	2.052	21	*****	.77	4
HARDY	3909	2	*****	0	*****	****	0	****	0	******	******	******	******	1.843	26	*****	.70	4
HELENA 1 SSE	4019	2	34.9	28	-1.8	71.	21	2.	19	841.5	49.5	.0	.0	1.853	28	.70	.59	4
JEFFERSON	4573	2	37.6	28	-1.6	67.	20	5.	18	766.0	44.0	.0	.0	1.542	28	.37	.94	3
LAMONT	5013	2	*****	0	*****	****	0	****	0	******	******	******	******	1.692	28	*****	.90	16
MEDFORD	5768	2	*****	0	*****	****	0	****	0	******	******	******	******	2.450	28	*****	.65	3
MORRISON	6065	2	*****	0	*****	****	0	****	0	******	******	******	******	2.061	28	*****	.55	15
MUTUAL	6139	2	34.3	28	-3.1	72.	21	-2.	18	859.0	86.0	.0	.0	1.050	28	-.02	.56	15
NEWKIRK	6278	2	36.2	28	-2.3	68.	8	1.	18	807.0	65.0	.0	.0	1.902	28	.73	.55	11
ORIENTA	6751	2	*****	0	*****	****	0	****	0	******	******	******	******	1.100	28	.07	.48	4
PERRY	7012	2	39.3	28	-1.5	75.	21	6.	18	720.0	42.0	.0	.0	2.200	28	.64	.62	15
PONCA CITY FAA	7201	2	38.2	28	.6	71.	8	6.	18	749.5	-17.5	.0	.0	2.228	28	.90	.54	16
RED ROCK 1 NNE	7505	2	*****	0	*****	****	0	****	0	******	******	******	******	1.990	28	.61	.70	15
WAYNOKA	9404	2	36.1	28	-3.9	76.	20	-2.	18	808.0	108.0	.0	.0	1.300	28	.22	.58	15
WOODWARD	9760	2	*****	0	*****	****	0	****	0	******	******	******	******	1.333	28	.30	.52	15

FEBRUARY 1993 SUMMARY FOR NORTHEAST DIVISION (CD3)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
BARNSDALL	535	3	37.4	27	-2.6	71.	20	-1.	18	746.5	46.5	.0	.0	3.093	28	1.24	.99	15
BARTLESVILLE 2W	548	3	37.4	28	-2.6	70.	8	1.	18	773.5	73.5	.0	.0	2.844	28	1.26	.70	25
BIXBY	782	3	37.8	28	-1.1	72.	21	8.	18	762.5	31.5	.0	.0	3.020	28	1.19	2.00	25
BURBANK	1256	3	*****	0	*****	****	0	****	0	******	******	******	******	2.774	28	1.37	.85	15
CHELSEA 4 S	1717	3	*****	0	*****	****	0	****	0	******	******	******	******	2.790	28	*****	1.13	25
CLAREMORE	1828	3	37.4	28	-.8	69.	9	7.	19	773.5	23.5	.0	.0	3.350	28	1.35	1.27	25
CLEVELAND 5 WSW	1902	3	40.1	25	*****	77.	20	4.	18	623.0	******	.0	******	4.030	28	*****	1.25	25
FORAKER	3250	3	*****	0	*****	****	0	****	0	******	******	******	******	1.850	28	.52	.33	5
HOLLOW	4258	3	*****	0	*****	****	0	****	0	******	******	******	******	4.552	28	2.77	2.35	16
HOMINY	4289	3	*****	0	*****	****	0	****	0	******	******	******	******	3.183	28	1.52	.80	16
HULAH DAM	4393	3	36.9	17	*****	70.	10	-2.	19	478.5	******	.0	******	1.612	26	*****	1.00	5
JAY TOWER	4567	3	37.7	28	*****	70.	9	0.	18	764.0	******	.0	******	4.860	28	*****	1.20	15
KANSAS 1 ESE	4672	3	38.3	28	-2.7	67.	8	0.	18	748.5	76.5	.0	.0	4.526	28	2.19	1.50	25
KEYSTONE DAM	4812	3	37.2	24	*****	75.	21	5.	18	667.5	******	.0	******	4.242	26	*****	1.25	16
LENAPAH	5118	3	*****	0	*****	****	0	****	0	******	******	******	******	1.322	26	*****	.33	11
MANNFORD 6 NW	5522	3	39.9	26	*****	76.	20	2.	18	652.5	******	.0	******	3.190	28	1.24	.91	25
MARAMEC	5540	3	*****	0	*****	****	0	****	0	******	******	******	******	3.940	28	2.38	.88	15
MIAMI	5855	3	36.7	28	-1.0	67.	10	0.	18	793.0	29.0	.0	.0	2.830	25	*****	1.25	16
NOWATA	6485	3	36.6	28	-2.9	68.	9	-1.	18	794.0	80.0	.0	.0	2.262	28	.39	.95	16
ONETA 1 WNW	6713	3	*****	0	*****	****	0	****	0	******	******	******	******	2.841	28	*****	1.23	25
PAWHUSKA	6935	3	37.9	28	-1.6	74.	20	0.	18	759.5	45.5	.0	.0	2.952	28	1.15	.74	15
PAWNEE	6940	3	*****	0	*****	****	0	****	0	******	******	******	******	2.430	28	.74	.75	15
PRYOR 6 N	7309	3	36.4	28	-1.6	68.	9	4.	18	800.0	44.0	.0	.0	3.195	26	*****	1.20	25
RALSTON	7390	3	38.8	28	-1.2	76.	21	3.	18	734.0	34.0	.0	.0	2.881	28	1.25	.60	4
RAMONA 4 N	7394	3	*****	0	*****	****	0	****	0	******	******	******	******	3.131	28	*****	.80	25
SKIATOOK	8258	3	*****	0	*****	****	0	****	0	******	******	******	******	1.710	28	-.09	.64	16
SPAVINAW	8380	3	39.7	28	-1.6	68.	8	4.	18	709.5	45.5	.0	.0	4.101	28	2.16	1.14	25
TULSA WSO APT	8992	3	40.5	23	*****	72.	20	6.	18	563.5	******	.0	******	2.565	28	.60	.98	25
UPPER SPAVINAW	9101	3	41.5	24	*****	66.	9	8.	18	564.5	******	.0	******	3.662	28	*****	1.30	25
VINITA 2 N	9203	3	36.5	28	-2.3	67.	9	0.	18	797.0	63.0	.0	.0	2.000	28	-.04	.99	25
WAGONER	9247	3	39.4	28	-2.4	68.	9	8.	18	716.0	66.0	.0	.0	4.131	28	2.06	1.37	25
WANN	9298	3	*****	0	*****	****	0	****	0	******	******	******	******	2.260	28	*****	.63	25
WYNONA	9792	3	*****	0	*****	****	0	****	0	******	******	******	******	2.683	28	*****	.80	15

FEBRUARY 1993 SUMMARY FOR WEST CENTRAL DIVISION (CD4)

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
CANTON DAM	1445	4	35.5	27	-2.9	76.	21	0.	18	797.0	52.0	.0	.0	1.632	28	.58	.50	16
CHEYENNE	1738	4	*****	0	*****	****	0	****	0	******	******	******	******	.372	28	-.61	.37	10
CLINTON	1909	4	39.6	28	-1.9	79.	20	10.	18	711.5	53.5	.0	.0	1.733	28	.54	.86	15
COLONY	2039	4	*****	0	*****	****	0	****	0	******	******	******	******	2.090	28	*****	.87	15
CORDELL	2125	4	*****	0	*****	****	0	****	0	******	******	******	******	1.595	28	.39	.90	15
ELK CITY 1 E	2849	4	38.4	28	-2.7	78.	20	10.	18	746.0	77.0	.0	.0	1.683	28	.48	.72	10
ERICK 4 E	2944	4	39.1	28	-2.4	78.	20	11.	18	724.0	66.0	.0	.0	1.092	28	.12	.51	16
GEARY	3497	4	41.3	28	.8	78.	20	13.	18	665.0	-24.0	.0	.0	1.220	28	-.01	.37	5
HAMMON 1 NNE	3871	4	35.4	28	-3.4	77.	21	10.	18	829.5	95.5	.0	.0	1.283	28	.23	.72	15
LEEDEY	5090	4	*****	0	*****	****	0	****	0	******	******	******	******	1.200	28	.18	.64	18
MACKIE 4 NNW	5463	4	*****	0	*****	****	0	****	0	******	******	******	******	1.300	28	*****	.70	15
MORAVIA 2 NNE	6035	4	*****	0	*****	****	0	****	0	******	******	******	******	2.051	28	.89	.86	10
OKEENE	6629	4	37.8	28	-3.4	74.	20	3.	18	761.5	95.5	.0	.0	1.990	28	.78	.60	15
RETROP	7565	4	*****	0	*****	****	0	****	0	******	******	******	******	2.450	28	*****	1.20	10
REYDON	7579	4	41.4	28	1.2	79.	20	14.	18	661.5	-32.5	.0	.0	.490	28	-.49	.24	10
SAYRE	7952	4	*****	0	*****	****	0	****	0	******	******	******	******	1.342	28	.52	.65	15
TALOGA	8708	4	37.1	28	-2.7	76.	20	0.	18	782.5	76.5	.0	.0	1.682	28	.59	.95	15
THOMAS	8815	4	*****	0	*****	****	0	****	0	******	******	******	******	1.100	28	*****	1.10	16
VICI	9172	4	*****	0	*****	****	0	****	0	******	******	******	******	1.920	28	.72	1.02	15
WATONGA	9364	4	37.7	28	-2.6	77.	20	2.	18	765.5	73.5	.0	.0	2.395	28	1.13	.92	15
WEATHERFORD	9422	4	37.7	28	-1.2	80.	21	5.	18	764.0	33.0	.0	.0	2.062	28	.92	.90	15

FEBRUARY 1993 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	******	******	******	******	3.340	28	*****	1.10	15
ARCADIA	288	5	*****	0	*****	****	0	****	0	******	******	******	******	2.971	28	*****	.87	25
TINKER AFB	325	5	*****	0	*****	****	0	****	0	******	******	******	******	3.396	27	*****	1.21	15
BLANCHARD 2 SSW	830	5	40.7	28	-2.3	78.	20	10.	18	680.0	64.0	.0	.0	3.232	28	1.48	1.24	15
BRISTOW	1144	5	39.7	28	-2.3	76.	20	4.	18	709.0	65.0	.0	.0	4.705	28	2.77	1.17	15
CHANDLER	1684	5	39.5	12	*****	67.	10	16.	17	306.5	******	.0	******	2.341	27	*****	1.05	15
CHICKASHA EX ST	1750	5	41.4	25	*****	79.	20	10.	18	590.5	******	.0	******	3.340	28	1.75	1.34	15
COX CITY 1 E	2196	5	*****	0	*****	****	0	****	0	******	******	******	******	3.840	28	*****	2.22	15
CRESCENT	2242	5	*****	0	*****	****	0	****	0	******	******	******	******	1.870	28	*****	.82	15
CUSHING	2318	5	37.8	28	-1.3	76.	21	6.	18	762.5	37.5	.0	.0	3.291	28	1.50	.93	15
EL RENO 1 N	2818	5	39.4	28	-1.4	78.	20	7.	18	718.0	40.0	.0	.0	2.240	28	.94	.82	15
GUTHRIE	3821	5	40.8	28	-.9	79.	20	6.	18	678.5	26.5	.0	.0	2.857	28	1.20	.70	15
HENNESSEY 4 ESE	4055	5	37.0	23	*****	71.	20	2.	18	644.0	******	.0	******	2.260	27	*****	.94	15
INGALLS	4489	5	*****	0	*****	****	0	****	0	******	******	******	******	2.662	28	*****	.65	15
KINGFISHER 2 SE	4861	5	37.8	28	-3.3	75.	20	5.	18	761.0	92.0	.0	.0	2.130	28	.74	.49	15
KONAWA	4915	5	*****	0	*****	****	0	****	0	******	******	******	******	5.061	28	2.98	2.15	15
MARSHALL	5589	5	*****	0	*****	****	0	****	0	******	******	******	******	1.322	28	.05	.57	15
MEEKER 4 W	5779	5	39.8	28	-2.1	75.	20	6.	18	706.5	59.5	.0	.0	2.431	28	.40	.61	24
MULHALL	6110	5	*****	0	*****	****	0	****	0	******	******	******	******	2.021	28	*****	.66	15
NORMAN 3 S	6386	5	39.8	28	-3.0	79.	20	8.	18	707.0	85.0	.0	.0	3.873	28	2.15	1.29	15
OILTON 2 SE	6616	5	*****	0	*****	****	0	****	0	******	******	******	******	3.790	28	*****	1.13	4
OKEMAH	6638	5	40.7	28	-1.8	75.	20	8.	18	680.5	50.5	.0	.0	4.880	28	2.97	1.64	15
OKLAHOMA CTY WS	6661	5	38.8	28	-2.1	77.	20	9.	18	734.5	59.5	.0	.0	2.806	28	1.25	.67	15
PERKINS	7003	5	*****	0	*****	****	0	****	0	******	******	******	******	2.700	28	1.03	1.01	15
PIEDMONT	7068	5	*****	0	*****	****	0	****	0	******	******	******	******	2.410	28	*****	.95	15
PRAGUE	7264	5	*****	0	*****	****	0	****	0	******	******	******	******	3.961	28	2.02	1.60	16
PURCELL 5 SW	7327	5	41.2	28	-1.5	78.	20	10.	16	667.0	43.0	.0	.0	5.244	28	3.27	2.50	15
SEMINOLE	8042	5	42.2	28	-1.9	75.	20	9.	18	639.0	54.0	.0	.0	5.882	28	3.87	2.20	15
SHAWNEE	8110	5	*****	0	*****	****	0	****	0	******	******	******	******	3.650	28	1.64	1.65	15
STELLA	8479	5	*****	0	*****	****	0	****	0	******	******	******	******	4.330	28	*****	1.53	15
STILLWATER 2 W	8501	5	38.9	28	.3	78.	21	5.	18	730.5	-8.5	.0	.0	2.475	28	.94	.80	15
STROUD 1 N	8563	5	*****	0	*****	****	0	****	0	******	******	******	******	3.923	28	*****	.98	25
TECUMSEH	8751	5	*****	0	*****	****	0	****	0	******	******	******	******	4.320	28	*****	1.70	15
TROUSDALE	8960	5	*****	0	*****	****	0	****	0	******	******	******	******	4.360	28	*****	1.92	14
UNION CITY 1 SE	9086	5	*****	0	*****	****	0	****	0	******	******	******	******	2.640	28	1.06	.96	5
WELTY 1 SSE	9479	5	*****	0	*****	****	0	****	0	******	******	******	******	4.096	28	*****	1.22	15
WEWOKA	9575	5	*****	0	*****	****	0	****	0	******	******	******	******	8.010	28	5.82	2.80	15

FEBRUARY 1993 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	******	******	******	******	4.911	28	*****	1.75	15
BEGGS	631	6	*****	0	*****	****	0	****	0	******	******	******	******	2.880	28	*****	1.39	25
BOYNTON	1027	6	*****	0	*****	****	0	****	0	******	******	******	******	3.883	28	*****	1.60	15
CALVIN	1391	6	*****	0	*****	****	0	****	0	******	******	******	******	5.352	28	3.23	2.07	15
CHECOTAH	1711	6	*****	0	*****	****	0	****	0	******	******	******	******	4.373	28	2.18	1.70	25
CLAYTON 14 WNW	1858	6	*****	0	*****	****	0	****	0	******	******	******	******	3.360	28	*****	1.49	15
DEWAR 2 NE	2485	6	*****	0	*****	****	0	****	0	******	******	******	******	4.230	28	2.00	2.00	15
EUFAULA	2993	6	42.6	28	-1.0	71.	8	13.	18	627.5	28.5	.0	.0	4.801	28	2.43	1.60	25
HANNA	3884	6	40.4	28	-2.7	71.	20	9.	18	689.5	76.5	.0	.0	4.476	28	2.10	1.80	15
HARTSHORNE	3946	6	*****	0	*****	****	0	****	0	******	******	******	******	3.780	28	*****	1.46	15
HASKELL	3956	6	*****	0	*****	****	0	****	0	******	******	******	******	3.851	28	1.68	1.30	15
HOLDENVILLE	4235	6	41.0	28	-2.5	75.	20	10.	18	672.0	64.0	.0	-6.0	5.950	28	4.00	1.92	15
LAKE EUFAULA	4975	6	40.0	28	*****	72.	21	9.	18	699.5	******	.0	******	3.181	25	*****	2.36	16
LYONS 2 N	5437	6	*****	0	*****	****	0	****	0	******	******	******	******	3.091	28	1.17	2.18	15
MARBLE CITY	5546	6	*****	0	*****	****	0	****	0	******	******	******	******	4.393	28	*****	2.00	16
MCALESTER FAA	5664	6	43.6	28	1.1	76.	20	13.	18	600.0	-30.0	.0	.0	3.831	28	1.19	1.21	25
MCCURTAIN 1 SE	5693	6	41.8	28	-2.2	71.	20	9.	18	648.5	60.5	.0	.0	4.362	28	1.42	1.70	15
MUSKOGEE	6130	6	39.5	28	-2.6	69.	8	9.	18	713.0	72.0	.0	.0	4.092	28	1.78	1.60	14
OKMULGEE W W	6670	6	38.0	28	-2.1	73.	21	8.	19	757.0	60.0	.0	.0	3.930	28	1.78	2.62	25
OKTAHA 2 NE	6678	6	*****	0	*****	****	0	****	0	******	******	******	******	2.460	28	*****	.76	25
QUINTON	7372	6	*****	0	*****	****	0	****	0	******	******	******	******	3.483	28	.98	1.08	25
SALLISAW 2 NE	7862	6	40.7	28	-2.4	68.	9	10.	18	680.5	67.5	.0	.0	3.822	27	*****	2.00	25
SCIPIO	7979	6	*****	0	*****	****	0	****	0	******	******	******	******	4.680	28	*****	2.08	15
SCRAPER	7993	6	*****	0	*****	****	0	****	0	******	******	******	******	3.190	28	*****	1.42	25
SHORT	8170	6	*****	0	*****	****	0	****	0	******	******	******	******	4.412	28	*****	1.97	25
STILWELL 1 NE	8506	6	38.8	28	-2.4	68.	8	5.	18	734.5	68.5	.0	.0	4.053	28	1.39	1.50	25
TAHLEQUAH	8677	6	38.4	28	-2.9	69.	8	4.	18	744.5	80.5	.0	.0	4.940	28	2.53	2.30	15
WEBBERS FALLS	9445	6	38.6	28	-1.7	71.	21	10.	19	738.5	46.5	.0	.0	4.680	28	2.14	1.62	25
WESTVILLE	9523	6	*****	0	*****	****	0	****	0	******	******	******	******	4.591	28	*****	2.45	16
WETUMKA 3 NE	9571	6	*****	0	*****	****	0	****	0	******	******	******	******	5.900	28	3.76	2.10	15

FEBRUARY 1993 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	42.5	28	-1.8	78.	20	15.	18	630.5	50.5	.0	.0	2.200	28	1.10	.88	15
ALTUS DAM	184	7	37.7	26	*****	74.	21	14.	18	709.5	******	.0	******	1.970	28	.78	.85	10
ANADARKO	224	7	40.2	28	-1.8	81.	20	11.	18	695.0	51.0	.0	.0	1.141	28	-.27	.43	25
APACHE	260	7	*****	0	*****	****	0	****	0	******	******	******	******	2.620	28	1.18	1.08	15
ALTUS AFB	447	7	*****	0	*****	****	0	****	0	******	******	******	******	2.351	27	*****	.92	15
CARNEGIE 2 ENE	1504	7	40.7	28	-1.3	82.	20	12.	18	681.0	37.0	.0	.0	2.181	28	.83	.54	28
CHATTANOOGA	1706	7	43.0	28	-.8	78.	20	15.	18	616.0	22.0	.0	.0	2.590	28	1.19	1.59	15
DUNCAN 11 W	2668	7	*****	0	*****	****	0	****	0	******	******	******	******	4.190	28	*****	2.23	14
FREDERICK	3353	7	39.9	28	-2.7	78.	21	14.	18	704.0	77.0	.0	.0	3.100	28	1.81	2.10	15
GRANDFIELD 4 NW	3709	7	*****	0	*****	****	0	****	0	******	******	******	******	2.770	28	1.32	2.05	15
HOBART FAA APT	4204	7	41.0	27	-.9	76.	20	14.	18	648.0	1.0	.0	.0	1.922	28	.87	.52	15
HOLLIS	4249	7	41.2	26	*****	79.	20	14.	18	620.0	******	.0	******	1.473	26	*****	.77	10
LAWTON	5063	7	40.2	28	-1.7	80.	21	14.	18	695.0	48.0	.0	.0	3.212	28	1.90	1.63	15
FORT SILL	5068	7	41.3	28	*****	81.	20	14.	18	664.5	******	.0	******	2.896	28	*****	1.28	15
LOOKEBA 2 ENE	5329	7	*****	0	*****	****	0	****	0	******	******	******	******	2.742	28	1.43	.80	15
MANGUM RES STA	5509	7	40.7	28	-2.8	79.	20	12.	18	679.5	77.5	.0	.0	1.390	28	.27	.58	10
RANDLETT 9 E	7403	7	*****	0	*****	****	0	****	0	******	******	******	******	3.150	28	*****	2.00	15
ROOSEVELT	7727	7	*****	0	*****	****	0	****	0	******	******	******	******	2.110	28	.97	.95	15
SEDAN	8016	7	*****	0	*****	****	0	****	0	******	******	******	******	1.660	28	*****	.60	15
SNYDER	8299	7	*****	0	*****	****	0	****	0	******	******	******	******	2.030	28	.80	.96	15
VINSON 3 WNW	9212	7	*****	0	*****	****	0	****	0	******	******	******	******	1.650	28	.78	.85	10
WALTERS	9278	7	42.0	28	-2.7	77.	21	15.	18	643.5	75.5	.0	.0	3.990	28	2.19	2.90	15
WICHITA MT WLR	9629	7	38.1	28	-2.8	78.	21	10.	18	753.5	78.5	.0	.0	2.040	28	.58	1.00	15
WILLOW	9668	7	*****	0	*****	****	0	****	0	******	******	******	******	2.473	28	*****	1.08	10

FEBRUARY 1993 SUMMARY FOR SOUTH CENTRAL DIVISION (CD8)

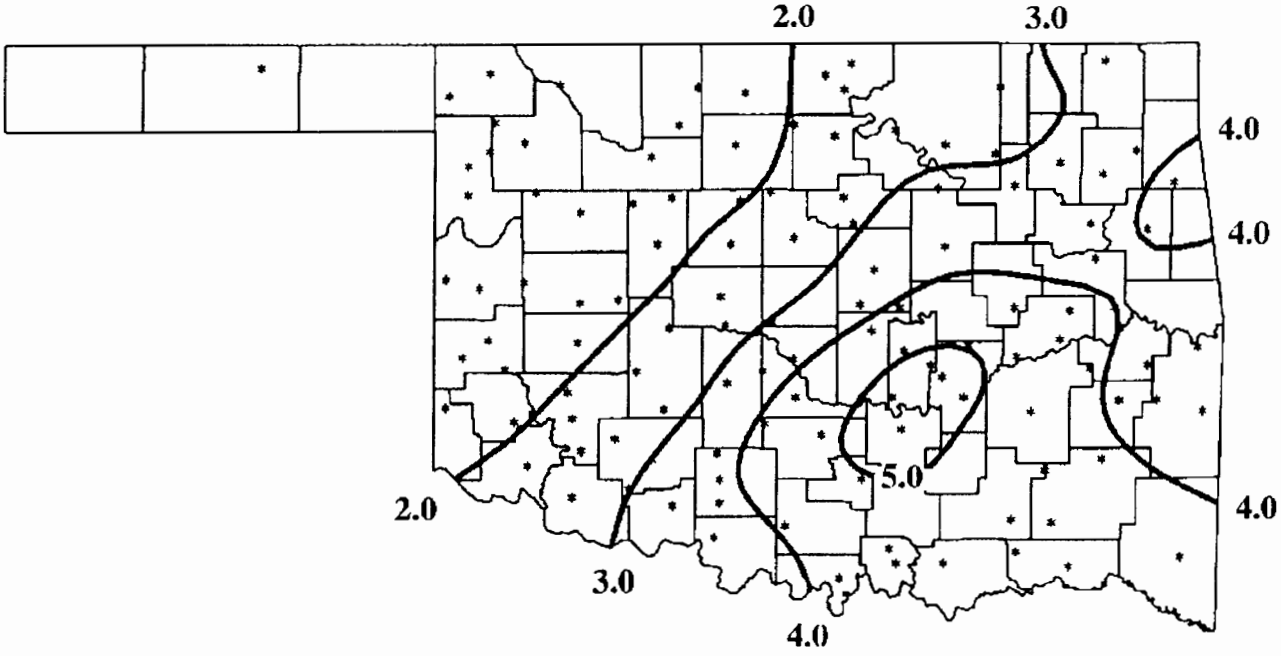
NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ADA	17	8	41.7	28	-2.0	72.	21	9.	18	653.5	57.5	.0	.0	5.142	28	2.99	1.90	15
ALLEN	147	8	*****	0	*****	****	0	****	0	******	******	******	******	5.150	28	*****	2.75	15
ARDMORE	292	8	43.8	28	-2.7	72.	20	13.	18	594.0	70.0	.0	-6.0	4.521	28	2.50	2.59	15
ATOKA DAM	394	8	42.4	20	*****	73.	22	14.	18	452.5	******	.0	******	4.830	20	*****	1.94	15
BOKCHITO	917	8	*****	0	*****	****	0	****	0	******	******	******	******	3.400	28	*****	1.44	26
CANEY	1437	8	43.6	22	*****	70.	20	12.	18	471.0	******	.0	******	5.070	28	*****	1.45	15
CENTRAHOMA	1648	8	*****	0	*****	****	0	****	0	******	******	******	******	5.000	28	*****	1.70	15
CHICKASAW NRA	1745	8	41.0	28	-1.2	72.	21	11.	18	671.5	33.5	.0	.0	4.950	28	2.97	2.42	15
COLEMAN	2011	8	*****	0	*****	****	0	****	0	******	******	******	******	2.040	28	*****	.95	26
COMANCHE	2054	8	*****	0	*****	****	0	****	0	******	******	******	******	3.550	28	1.81	2.22	15
DAISY 4 ENE	2354	8	*****	0	*****	****	0	****	0	******	******	******	******	3.681	28	.56	1.49	15
DUNCAN	2660	8	41.4	28	-1.3	77.	21	17.	19	661.0	37.0	.0	.0	4.772	28	3.07	2.90	15
DURANT USDA	2678	8	43.0	28	-.5	72.	21	13.	18	616.0	14.0	.0	.0	5.620	28	2.99	1.50	15
ELMORE CITY	2872	8	*****	0	*****	****	0	****	0	******	******	******	******	6.061	28	*****	2.20	14
FARRIS 3 WNW	3083	8	*****	0	*****	****	0	****	0	******	******	******	******	4.730	28	1.80	1.12	18
GRADY	3688	8	*****	0	*****	****	0	****	0	******	******	******	******	4.760	28	*****	2.02	15
HEALDTON	4001	8	43.1	28	-1.3	80.	20	16.	18	614.5	37.5	.0	.0	3.960	28	2.13	2.06	15
HENNEPIN	4052	8	*****	0	*****	****	0	****	0	******	******	******	******	4.340	28	*****	1.87	15
KETCHUM RANCH	4780	8	*****	0	*****	****	0	****	0	******	******	******	******	4.511	28	*****	2.50	15
KINGSTON	4865	8	*****	0	*****	****	0	****	0	******	******	******	******	3.850	28	1.22	1.82	15
LEHIGH	5108	8	*****	0	*****	****	0	****	0	******	******	******	******	4.602	28	*****	1.30	15
LINDSAY 2 W	5216	8	41.3	25	*****	78.	20	12.	18	592.5	******	.0	******	3.931	27	*****	2.00	15
LOCO 6 SE	5247	8	*****	0	*****	****	0	****	0	******	******	******	******	3.320	28	*****	1.59	15
MADILL	5468	8	43.0	28	-2.4	70.	20	14.	18	617.0	68.0	.0	.0	4.894	28	2.34	2.02	14
MARIETTA	5563	8	45.0	28	-.6	71.	20	18.	18	561.0	18.0	.0	.0	3.730	28	1.57	1.83	15
MARLOW 1 WSW	5581	8	41.8	28	-1.8	77.	20	10.	18	651.0	49.0	.0	.0	3.423	28	1.83	1.98	15
MCGEE CREEK DAM	5713	8	*****	0	*****	****	0	****	0	******	******	******	******	4.090	28	*****	1.27	15
PAULS VALLEY	6926	8	42.0	28	-1.9	80.	20	11.	18	643.5	52.5	.0	.0	5.562	28	3.71	2.40	15
PONTOTOC	7214	8	*****	0	*****	****	0	****	0	******	******	******	******	5.901	28	3.77	1.87	14
TISHOMINGO NWLR	8884	8	41.1	17	*****	69.	8	14.	18	406.0	******	.0	******	4.660	26	*****	1.90	16
TUSSY	9032	8	*****	0	*****	****	0	****	0	******	******	******	******	4.591	28	*****	1.97	15
WAURIKA	9395	8	44.5	28	-.9	80.	20	17.	18	575.0	26.0	.0	.0	3.240	28	1.62	1.76	15
WAURIKA DAM	9399	8	41.8	20	*****	70.	11	17.	18	463.0	******	.0	******	3.471	20	*****	2.15	16

FEBRUARY 1993 SUMMARY FOR SOUTHEAST DIVISION (CD9)

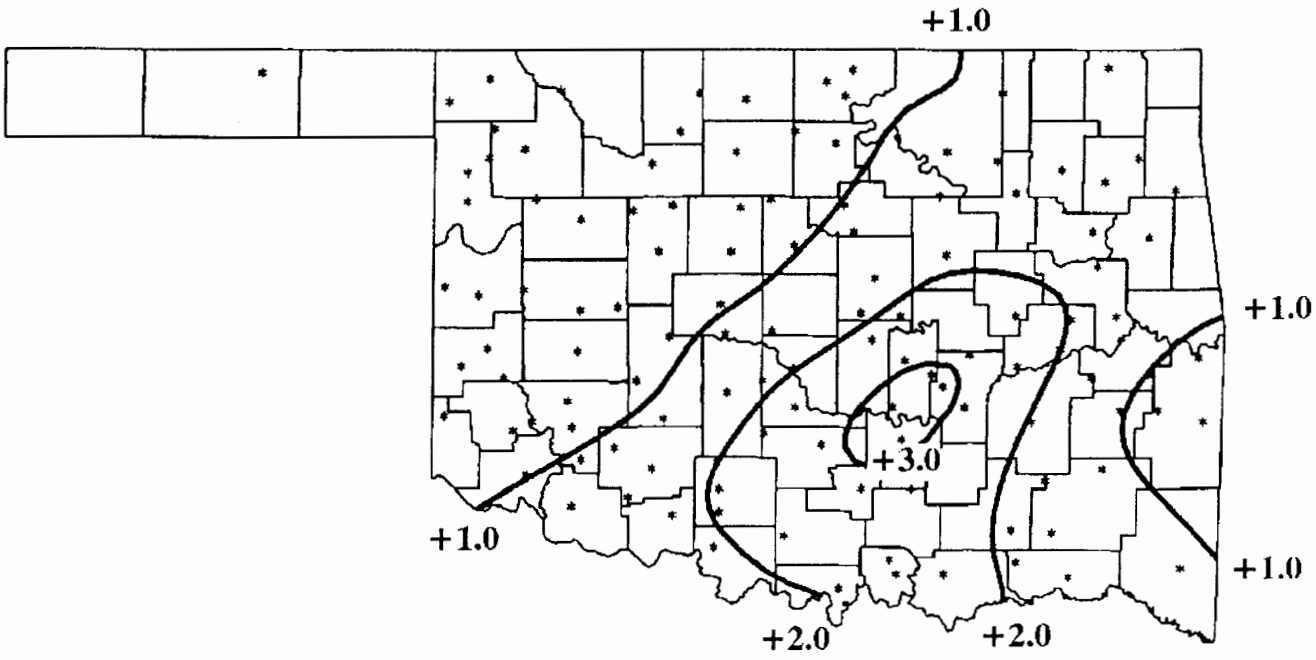
NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ANTLERS	256	9	43.8	28	-1.0	72.	1	14.	18	592.5	26.5	.0	.0	3.890	28	1.18	1.02	15
BATTIEST 1 SSW	567	9	40.2	28	*****	68.	1	11.	18	694.0	******	.0	******	4.390	28	*****	1.45	16
BEAR MT TWR	584	9	44.7	28	-1.5	70.	2	14.	18	569.0	43.0	.0	.0	3.761	23	*****	1.42	25
BENGAL	670	9	*****	0	*****	****	0	****	0	******	******	******	******	4.260	28	*****	1.33	15
BOSWELL 4 NNW	980	9	43.6	24	*****	72.	20	14.	18	513.5	******	.0	******	4.774	28	1.71	1.45	25
BROKEN BOW 1 N	1162	9	*****	0	*****	****	0	****	0	******	******	******	******	4.440	28	.94	1.66	25
BROKEN BOW DAM	1168	9	44.5	28	.8	72.	2	18.	19	575.0	-21.0	.0	.0	3.001	26	*****	1.27	16
CARNASAW TWR	1499	9	*****	0	*****	****	0	****	0	******	******	******	******	3.160	28	-.38	1.49	25
CARTER TWR	1544	9	*****	0	*****	****	0	****	0	******	******	******	******	3.380	28	-.19	1.35	25
FANSHAWE	3065	9	*****	0	*****	****	0	****	0	******	******	******	******	4.010	28	.87	1.40	15
HEAVENER 1 SE	4008	9	*****	0	*****	****	0	****	0	******	******	******	******	3.061	28	.12	.95	16
HEE MT TWR	4017	9	*****	0	*****	****	0	****	0	******	******	******	******	4.821	28	1.18	1.60	16
HUGO	4384	9	45.1	28	-1.5	71.	20	15.	18	556.0	41.0	.0	.0	5.642	28	2.31	1.87	11
IDABEL	4451	9	44.1	28	-.3	73.	21	13.	18	585.0	8.0	.0	.0	6.522	28	2.99	3.10	25
POTEAU	7246	9	39.6	28	-4.5	69.	10	13.	19	712.5	127.5	.0	.0	2.545	28	-.38	1.07	25
SMITHVILLE 1 W	8285	9	40.7	28	-2.2	71.	1	11.	18	679.5	60.5	.0	.0	4.715	28	1.08	1.85	15
SPIRO	8416	9	*****	0	*****	****	0	****	0	******	******	******	******	3.010	31	.13	.76	16
TUSKAHOMA	9023	9	42.4	28	-2.5	70.	1	11.	18	632.5	69.5	.0	.0	4.691	28	1.75	1.25	25
VALLIANT 3 W	9118	9	*****	0	*****	****	0	****	0	******	******	******	******	4.531	28	1.06	1.46	25
WILBURTON 9 ENE	9634	9	41.4	28	-1.8	70.	8	10.	18	662.0	52.0	.0	.0	3.473	28	.44	1.26	14

FEBRUARY 1993 CLIMATE DIVISION SUMMARY

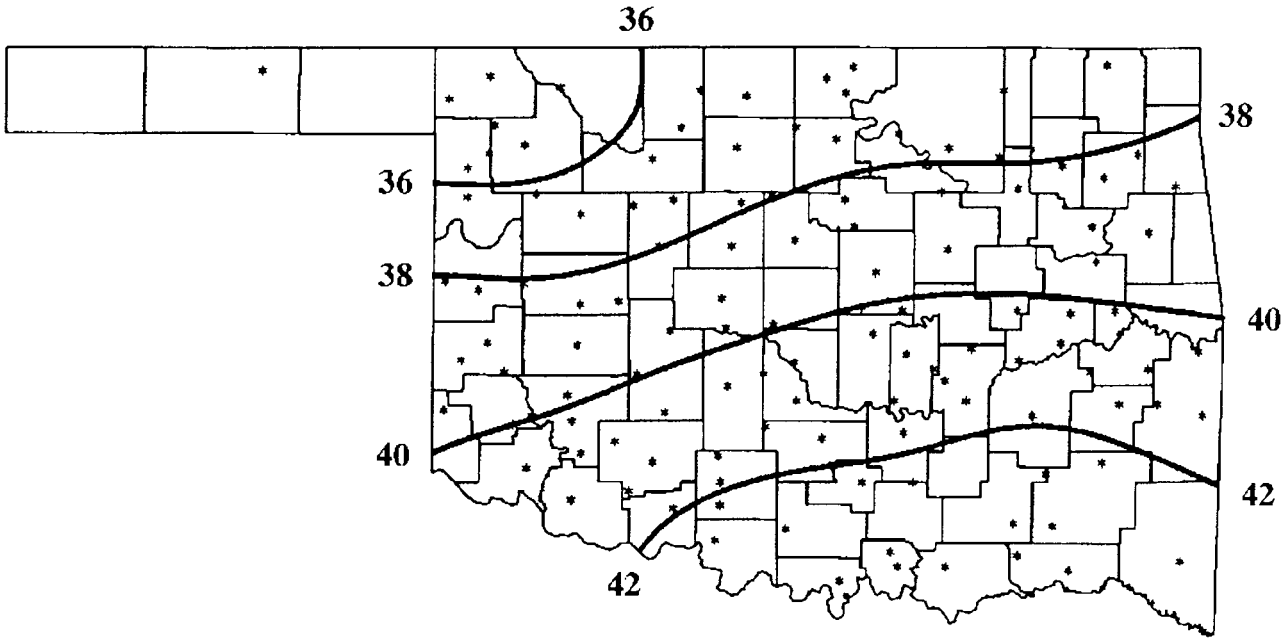
CLIMATE DIV	MEAN TEMP	NUM STA	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEGREE DAYS	DEV FROM NORM	COOL DEGREE DAYS	DEV FROM NORM	TOT PPT	NUM STA	DEV FROM NORM	MAX 24-HR	DAY
1	34.2	10	-3.3	76.0	20	-4.0	18	862.5	91.6	.0	.0	1.13	12	.41	.90	16
2	36.0	14	-2.6	76.0	20	-2.0	18	810.9	73.8	.0	.0	1.67	21	.51	.94	3
3	37.7	14	-1.8	77.0	20	-2.0	19	762.3	47.5	.0	.0	3.13	28	1.32	2.35	16
4	38.3	11	-2.1	80.0	21	.0	18	746.2	56.4	.0	.0	1.56	21	.45	1.20	10
5	39.8	13	-2.0	79.0	20	2.0	18	705.7	54.9	.0	.0	3.55	34	1.81	2.80	15
6	40.3	12	-2.0	76.0	20	4.0	18	692.1	54.7	.0	-.5	4.21	28	1.86	2.62	25
7	40.9	11	-1.9	82.0	20	10.0	18	673.7	50.5	.0	.0	2.46	22	1.18	2.90	15
8	42.7	11	-1.4	80.0	20	9.0	18	623.5	39.0	.0	-.4	4.43	29	2.26	2.90	15
9	42.7	10	-1.9	73.0	21	10.0	18	625.8	54.7	.0	.0	4.18	18	.91	3.10	25



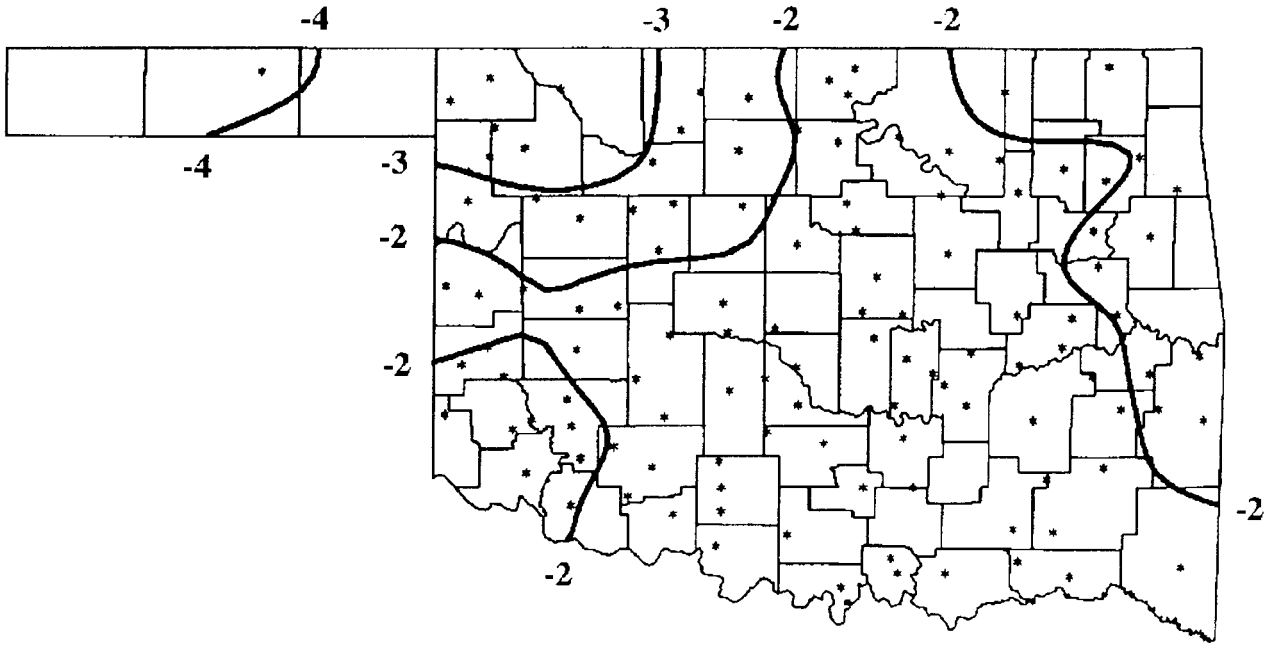
FEBRUARY 1993 TOTAL PRECIPITATION
(Inches)



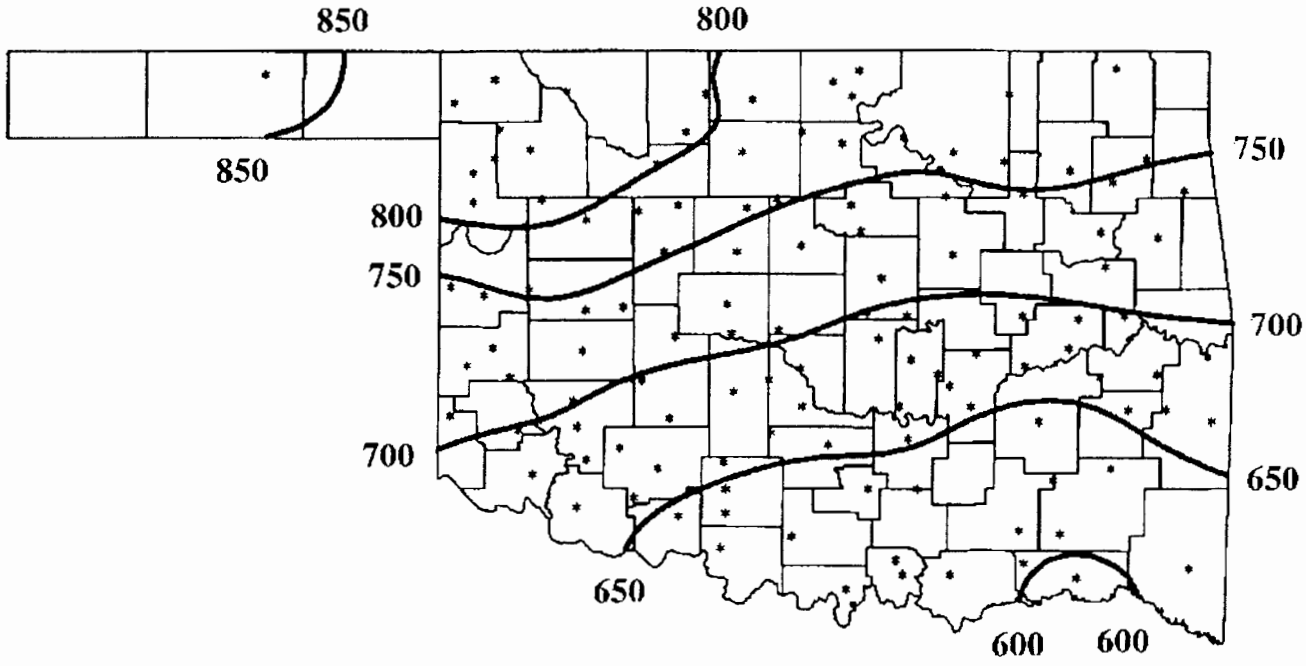
FEBRUARY 1993 DEVIATION FROM NORMAL PRECIPITATION
(Inches)



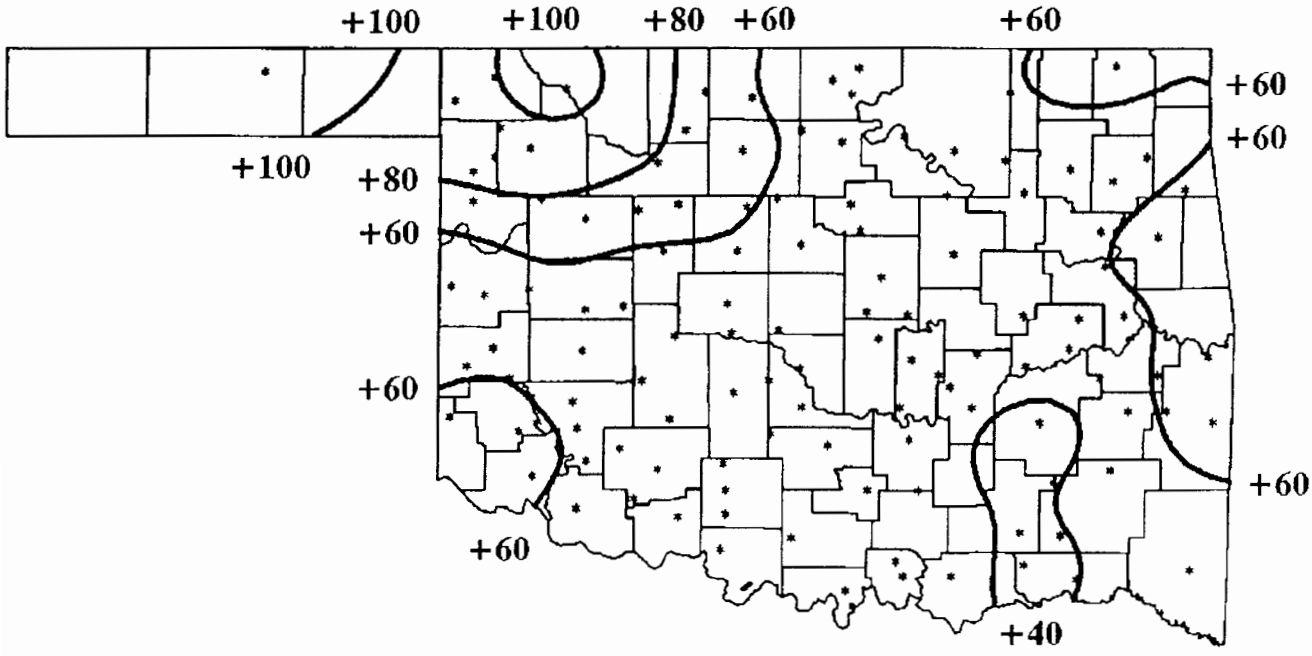
FEBRUARY 1993 AVERAGE MONTHLY TEMPERATURES
(Degrees F)



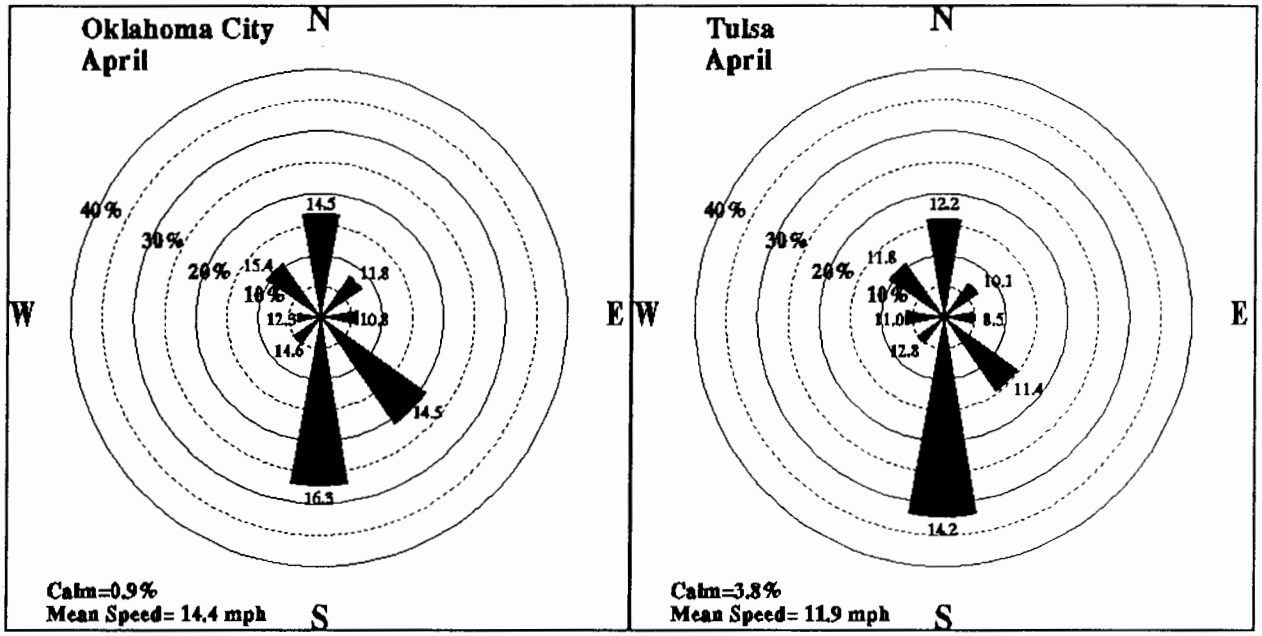
FEBRUARY 1993 DEVIATION FROM NORMAL TEMPERATURES
(Degrees F)



FEBRUARY 1993 HEATING DEGREE DAYS



FEBRUARY 1993 DEVIATION FROM NORMAL HEATING DEGREE DAYS



April Wind Roses for Oklahoma City and Tulsa. Percents represent the frequency of winds from each direction. The numbers at the ends of the bars indicate the average wind speed (miles per hour) from that direction.

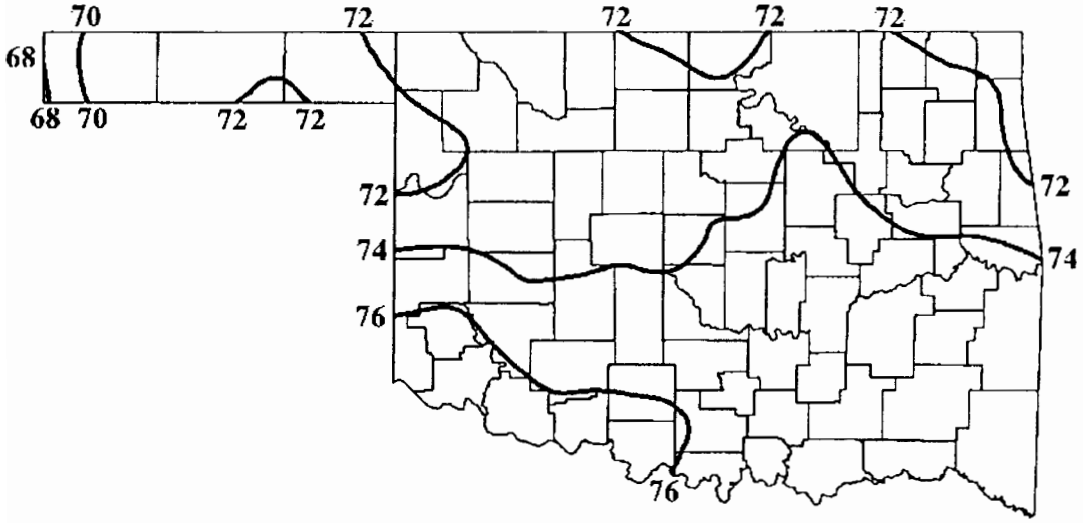
APRIL 1993 SUNRISE AND SUNSET

OKLAHOMA CITY

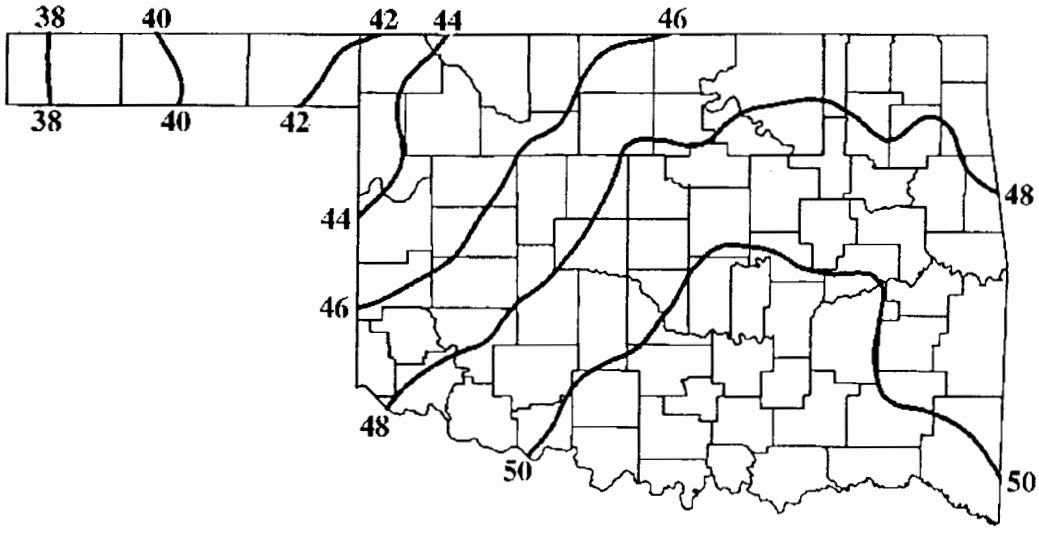
DATE	SUNRISE	SUNSET	DAYLIGHT
93 4 1	6:19AM	6:51PM CST	12 hrs 32 mins
93 4 2	6:17AM	6:51PM CST	12 hrs 34 mins
93 4 3	6:16AM	6:52PM CST	12 hrs 36 mins
93 4 4	7:14AM	7:53PM CDT	12 hrs 39 mins
93 4 5	7:13AM	7:54PM CDT	12 hrs 41 mins
93 4 6	7:12AM	7:55PM CDT	12 hrs 43 mins
93 4 7	7:10AM	7:55PM CDT	12 hrs 45 mins
93 4 8	7: 9AM	7:56PM CDT	12 hrs 47 mins
93 4 9	7: 7AM	7:57PM CDT	12 hrs 50 mins
93 410	7: 6AM	7:58PM CDT	12 hrs 52 mins
93 411	7: 5AM	7:58PM CDT	12 hrs 54 mins
93 412	7: 3AM	7:59PM CDT	12 hrs 56 mins
93 413	7: 2AM	8: 0PM CDT	12 hrs 58 mins
93 414	7: 1AM	8: 1PM CDT	13 hrs 0 mins
93 415	6:59AM	8: 2PM CDT	13 hrs 2 mins
93 416	6:58AM	8: 2PM CDT	13 hrs 4 mins
93 417	6:57AM	8: 3PM CDT	13 hrs 7 mins
93 418	6:55AM	8: 4PM CDT	13 hrs 9 mins
93 419	6:54AM	8: 5PM CDT	13 hrs 11 mins
93 420	6:53AM	8: 6PM CDT	13 hrs 13 mins
93 421	6:52AM	8: 6PM CDT	13 hrs 15 mins
93 422	6:50AM	8: 7PM CDT	13 hrs 17 mins
93 423	6:49AM	8: 8PM CDT	13 hrs 19 mins
93 424	6:48AM	8: 9PM CDT	13 hrs 21 mins
93 425	6:47AM	8:10PM CDT	13 hrs 23 mins
93 426	6:46AM	8:10PM CDT	13 hrs 25 mins
93 427	6:45AM	8:11PM CDT	13 hrs 27 mins
93 428	6:44AM	8:12PM CDT	13 hrs 28 mins
93 429	6:42AM	8:13PM CDT	13 hrs 30 mins
93 430	6:41AM	8:14PM CDT	13 hrs 32 mins

TULSA

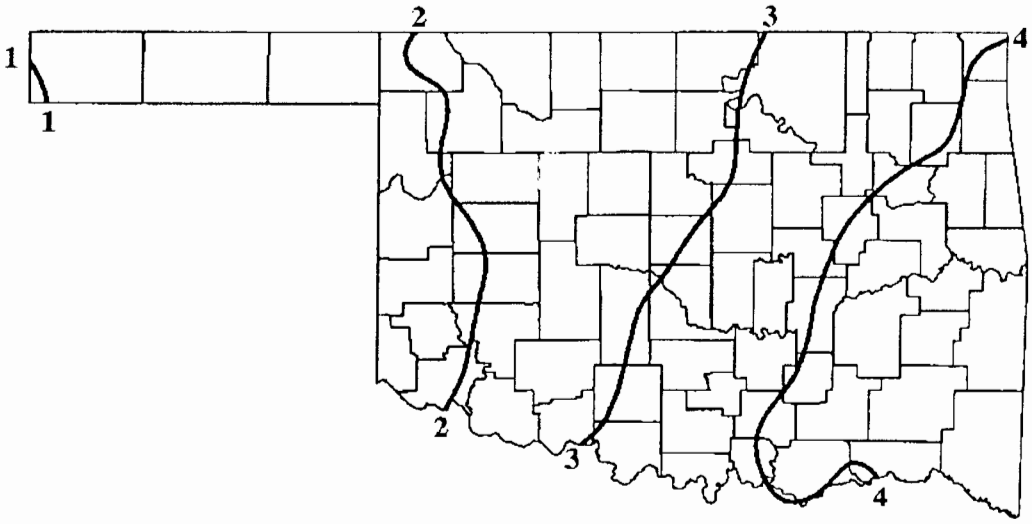
DATE	SUNRISE	SUNSET	DAYLIGHT
93 4 1	6:11AM	6:44PM CST	12 hrs 33 mins
93 4 2	6:10AM	6:45PM CST	12 hrs 35 mins
93 4 3	6: 8AM	6:46PM CST	12 hrs 37 mins
93 4 4	7: 7AM	7:47PM CDT	12 hrs 40 mins
93 4 5	7: 6AM	7:47PM CDT	12 hrs 42 mins
93 4 6	7: 4AM	7:48PM CDT	12 hrs 44 mins
93 4 7	7: 3AM	7:49PM CDT	12 hrs 46 mins
93 4 8	7: 1AM	7:50PM CDT	12 hrs 49 mins
93 4 9	7: 0AM	7:51PM CDT	12 hrs 51 mins
93 410	6:59AM	7:52PM CDT	12 hrs 53 mins
93 411	6:57AM	7:52PM CDT	12 hrs 55 mins
93 412	6:56AM	7:53PM CDT	12 hrs 57 mins
93 413	6:54AM	7:54PM CDT	13 hrs 0 mins
93 414	6:53AM	7:55PM CDT	13 hrs 2 mins
93 415	6:52AM	7:56PM CDT	13 hrs 4 mins
93 416	6:50AM	7:57PM CDT	13 hrs 6 mins
93 417	6:49AM	7:57PM CDT	13 hrs 8 mins
93 418	6:48AM	7:58PM CDT	13 hrs 10 mins
93 419	6:46AM	7:59PM CDT	13 hrs 13 mins
93 420	6:45AM	8: 0PM CDT	13 hrs 15 mins
93 421	6:44AM	8: 1PM CDT	13 hrs 17 mins
93 422	6:43AM	8: 1PM CDT	13 hrs 19 mins
93 423	6:41AM	8: 2PM CDT	13 hrs 21 mins
93 424	6:40AM	8: 3PM CDT	13 hrs 23 mins
93 425	6:39AM	8: 4PM CDT	13 hrs 25 mins
93 426	6:38AM	8: 5PM CDT	13 hrs 27 mins
93 427	6:37AM	8: 6PM CDT	13 hrs 29 mins
93 428	6:35AM	8: 6PM CDT	13 hrs 31 mins
93 429	6:34AM	8: 7PM CDT	13 hrs 33 mins
93 430	6:33AM	8: 8PM CDT	13 hrs 35 mins



April Normal Daily Maximum Temperatures (°F)



April Normal Daily Minimum Temperatures (°F)



April Normal Monthly Precipitation (inches)

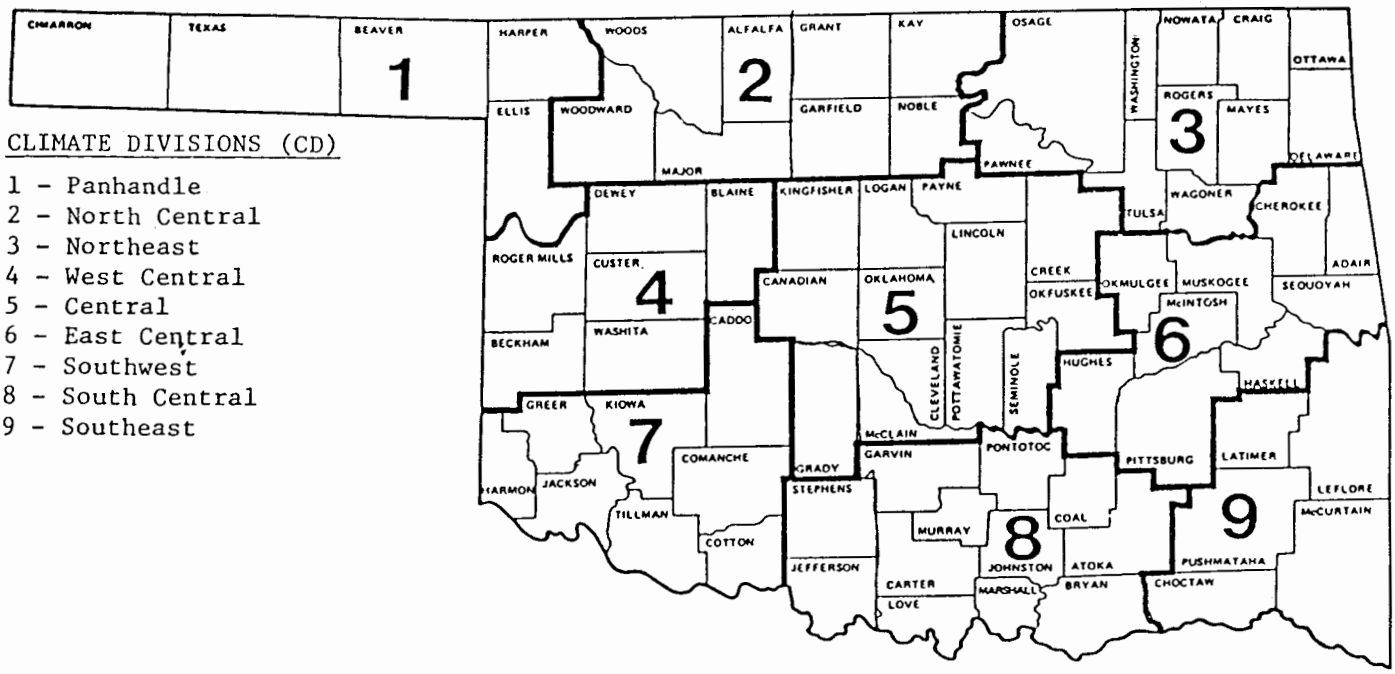
90-DAY NATIONAL WEATHER SERVICE OUTLOOK

(MARCH 1993 - MAY 1993)

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

April 1993

The data on this calendar are for Oklahoma City. Normal values are calculated for the period 1961-1990. Extremes are found for the period of record (1891-present).

Normal 1	Actual	Normal 2	Actual	Normal 3	Actual	Normal 4	Actual	Normal 5	Actual	Normal 6	Actual	Normal 7	Actual
67.7 max		69.6 max		68.3 max		66.2 max		67.0 max		71.5 max		70.6 max	
44.3 min		45.5 min		44.3 min		42.8 min		42.2 min		44.6 min		46.4 min	
.04 ppt		.07 ppt		.09 ppt		.02 ppt		.14 ppt		.01 ppt		.05 ppt	
10 hdd		8 hdd		9 hdd		11 hdd		11 hdd		9 hdd		7 hdd	
1 cdd		1 cdd		1 cdd		1 cdd		1 cdd		2 cdd		1 cdd	
Highest Max	92-1946	Highest Max	88-1918	Highest Max	92-1893	Highest Max	93-1893	Highest Max	94-1893	Highest Max	95-1893	Highest Max	94-1893
Lowest Max	45-1938	Lowest Max	43-1975	Lowest Max	43-1979	Lowest Max	38-1920	Lowest Max	43-1899	Lowest Max	41-1899	Lowest Max	38-1938
Lowest Min	26-1899	Lowest Min	20-1936	Lowest Min	21-1975	Lowest Min	22-1891	Lowest Min	26-1970	Lowest Min	26-1936	Lowest Min	27-1938
Highest Min	58-1946	Highest Min	67-1946	Highest Min	66-1934	Highest Min	66-1929	Highest Min	65-1978	Highest Min	68-1967	Highest Min	68-1893
Greatest ppt	2.87-1905	Greatest ppt	.99-1922	Greatest ppt	1.37-1919	Greatest ppt	2.06-1906	Greatest ppt	3.39-1953	Greatest ppt	1.24-1940	Greatest ppt	1.76-1942
Normal 8	**Actual**	**Normal 9**	**Actual**	**Normal 10**	**Actual**	**Normal 11**	**Actual**	**Normal 12**	**Actual**	**Normal 13**	**Actual**	**Normal 14**	**Actual**
68.6 max		68.1 max		68.1 max		69.5 max		69.3 max		68.8 max		71.1 max	
47.3 min		45.0 min		45.8 min		46.5 min		46.9 min		46.1 min		46.2 min	
.09 ppt		.06 ppt		.09 ppt		.04 ppt		.09 ppt		.10 ppt		.08 ppt	
8 hdd		9 hdd		9 hdd		8 hdd		8 hdd		9 hdd		8 hdd	
1 cdd		1 cdd		1 cdd		1 cdd		1 cdd		1 cdd		1 cdd	
Highest Max	88-1905	Highest Max	90-1930	Highest Max	91-1934	Highest Max	90-1972	Highest Max	100-1972	Highest Max	94-1972	Highest Max	92-1936
Lowest Max	36-1938	Lowest Max	44-1973	Lowest Max	45-1958	Lowest Max	47-1952	Lowest Max	35-1957	Lowest Max	43-1957	Lowest Max	46-1928
Lowest Min	28-1938	Lowest Min	25-1914	Lowest Min	28-1973	Lowest Min	29-1940	Lowest Min	23-1957	Lowest Min	20-1957	Lowest Min	27-1980
Highest Min	63-1894	Highest Min	66-1927	Highest Min	66-1965	Highest Min	66-1972	Highest Min	70-1972	Highest Min	65-1941	Highest Min	68-1972
Greatest ppt	2.99-1922	Greatest ppt	2.91-1944	Greatest ppt	1.40-1979	Greatest ppt	1.10-1974	Greatest ppt	3.11-1967	Greatest ppt	3.75-1910	Greatest ppt	1.27-1947
Normal 15	**Actual**	**Normal 16**	**Actual**	**Normal 17**	**Actual**	**Normal 18**	**Actual**	**Normal 19**	**Actual**	**Normal 20**	**Actual**	**Normal 21**	**Actual**
71.8 max		73.8 max		74.2 max		73.1 max		73.6 max		73.3 max		74.8 max	
47.9 min		49.4 min		51.2 min		51.9 min		51.8 min		51.7 min		51.9 min	
.05 ppt		.10 ppt		.09 ppt		.11 ppt		.16 ppt		.16 ppt		.03 ppt	
6 hdd		5 hdd		4 hdd		5 hdd		4 hdd		5 hdd		4 hdd	
1 cdd		2 cdd		2 cdd		2 cdd		2 cdd		2 cdd		2 cdd	
Highest Max	90-1940	Highest Max	92-1940	Highest Max	96-1925	Highest Max	96-1925	Highest Max	94-1987	Highest Max	91-1961	Highest Max	90-1965
Lowest Max	51-1902	Lowest Max	49-1905	Lowest Max	47-1905	Lowest Max	47-1953	Lowest Max	50-1918	Lowest Max	43-1918	Lowest Max	45-1959
Lowest Min	30-1928	Lowest Min	31-1921	Lowest Min	30-1953	Lowest Min	30-1953	Lowest Min	33-1953	Lowest Min	33-1966	Lowest Min	34-1966
Highest Min	66-1982	Highest Min	67-1896	Highest Min	67-1963	Highest Min	66-1964	Highest Min	68-1948	Highest Min	69-1985	Highest Min	70-1961
Greatest ppt	1.67-1947	Greatest ppt	1.08-1970	Greatest ppt	1.40-1908	Greatest ppt	2.97-1942	Greatest ppt	2.92-1919	Greatest ppt	2.07-1937	Greatest ppt	79-1899
Normal 22	**Actual**	**Normal 23**	**Actual**	**Normal 24**	**Actual**	**Normal 25**	**Actual**	**Normal 26**	**Actual**	**Normal 27**	**Actual**	**Normal 28**	**Actual**
75.6 max		75.0 max		75.7 max		73.9 max		74.0 max		74.8 max		73.2 max	
52.8 min		52.9 min		51.9 min		52.6 min		52.9 min		51.3 min		52.2 min	
.14 ppt		.08 ppt		.08 ppt		.10 ppt		.09 ppt		.11 ppt		.11 ppt	
4 hdd		4 hdd		4 hdd		4 hdd		4 hdd		4 hdd		4 hdd	
3 cdd		3 cdd		2 cdd		2 cdd		2 cdd		3 cdd		2 cdd	
Highest Max	95-1955	Highest Max	89-1989	Highest Max	89-1901	Highest Max	91-1939	Highest Max	92-1896	Highest Max	91-1959	Highest Max	93-1902
Lowest Max	45-1909	Lowest Max	52-1931	Lowest Max	52-1947	Lowest Max	51-1919	Lowest Max	50-1919	Lowest Max	57-1979	Lowest Max	50-1922
Lowest Min	34-1959	Lowest Min	33-1909	Lowest Min	37-1910	Lowest Min	35-1910	Lowest Min	35-1907	Lowest Min	35-1920	Lowest Min	37-1979
Highest Min	69-1961	Highest Min	70-1989	Highest Min	68-1989	Highest Min	66-1893	Highest Min	68-1975	Highest Min	69-1970	Highest Min	70-1970
Greatest ppt	1.98-1915	Greatest ppt	.95-1945	Greatest ppt	1.67-1948	Greatest ppt	2.64-1915	Greatest ppt	1.50-1963	Greatest ppt	1.57-1897	Greatest ppt	1.97-1960
Normal 29	**Actual**	**Normal 30**	**Actual**										
75.0 max		74.2 max											
52.7 min		53.3 min											
.22 ppt		.19 ppt											
3 hdd		4 hdd											
2 cdd		2 cdd											
Highest Max	92-1936	Highest Max	93-1948										
Lowest Max	52-1908	Lowest Max	50-1907										
Lowest Min	34-1908	Lowest Min	32-1907										
Highest Min	68-1933	Highest Min	68-1936										
Greatest ppt	2.87-1974	Greatest ppt	2.13-1970										

APRIL AVERAGES

TEMPERATURE	:	60.2°F
PRECIPITATION	:	2.79"
HEATING DEGREE DAYS	:	192
COOLING DEGREE DAYS	:	49

TULSA CLIMATE CALENDAR

April 1993

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

Normal 1	Actual	Normal 2	Actual	Normal 3	Actual	Normal 4	Actual	Normal 5	Actual	Normal 6	Actual	Normal 7	Actual
68.0 max		69.0 max		69.0 max		67.0 max		67.0 max		71.0 max		73.0 max	
45.0 min		46.0 min		45.0 min		44.0 min		43.0 min		46.0 min		46.0 min	
.07 ppt		.12 ppt		.13 ppt		.13 ppt		.08 ppt		.00 ppt		.05 ppt	
9 hdd		8 hdd		8 hdd		10 hdd		11 hdd		8 hdd		7 hdd	
1 cdd		1 cdd		1 cdd		1 cdd		1 cdd		2 cdd		1 cdd	
Highest Max 94-1946		Highest Max 89-1918		Highest Max 88-1965		Highest Max 90-1943		Highest Max 87-1967		Highest Max 92-1960		Highest Max 88-1949	
Lowest Max 47-1970		Lowest Max 41-1949		Lowest Max 46-1979		Lowest Max 46-1970		Lowest Max 47-1983		Lowest Max 50-1982		Lowest Max 52-1983	
Lowest Min 28-1972		Lowest Min 22-1936		Lowest Min 23-1975		Lowest Min 27-1972		Lowest Min 22-1920		Lowest Min 29-1936		Lowest Min 28-1939	
Highest Min 66-1967		Highest Min 55-1978		Highest Min 69-1981		Highest Min 60-1965		Highest Min 65-1967		Highest Min 65-1967		Highest Min 67-1986	
Greatest ppt 1.60-1988		Greatest ppt .83-1956		Greatest ppt 1.25-1978		Greatest ppt 4.40-1964		Greatest ppt 1.42-1953		Greatest ppt 08-1986		Greatest ppt 1.47-1975	

Normal 8	Actual	Normal 9	Actual	Normal 10	Actual	Normal 11	Actual	Normal 12	Actual	Normal 13	Actual	Normal 14	Actual
70.0 max		69.0 max		69.0 max		70.0 max		70.0 max		69.0 max		71.0 max	
47.0 min		45.0 min		46.0 min		48.0 min		49.0 min		47.0 min		48.0 min	
.05 ppt		.09 ppt		.15 ppt		.08 ppt		.10 ppt		.15 ppt		.07 ppt	
8 hdd		9 hdd		8 hdd		7 hdd		7 hdd		8 hdd		7 hdd	
1 cdd		1 cdd		1 cdd		1 cdd		2 cdd		1 cdd		1 cdd	
Highest Max 88-1965		Highest Max 90-1930		Highest Max 92-1927		Highest Max 93-1972		Highest Max 102-1972		Highest Max 96-1936		Highest Max 94-1936	
Lowest Max 47-1983		Lowest Max 43-1973		Lowest Max 47-1956		Lowest Max 49-1951		Lowest Max 36-1957		Lowest Max 45-1957		Lowest Max 54-1987	
Lowest Min 29-1938		Lowest Min 24-1914		Lowest Min 31-1973		Lowest Min 30-1940		Lowest Min 26-1957		Lowest Min 22-1957		Lowest Min 31-1957	
Highest Min 63-1978		Highest Min 64-1978		Highest Min 65-1981		Highest Min 68-1972		Highest Min 68-1981		Highest Min 69-1972		Highest Min 67-1972	
Greatest ppt .71-1961		Greatest ppt 1.25-1949		Greatest ppt 1.70-1979		Greatest ppt 1.10-1992		Greatest ppt 1.72-1957		Greatest ppt 1.33-1955		Greatest ppt 1.50-1965	

Normal 15	Actual	Normal 16	Actual	Normal 17	Actual	Normal 18	Actual	Normal 19	Actual	Normal 20	Actual	Normal 21	Actual
72.0 max		75.0 max		74.0 max		73.0 max		74.0 max		74.0 max		76.0 max	
48.0 min		50.0 min		52.0 min		53.0 min		53.0 min		53.0 min		53.0 min	
.11 ppt		.08 ppt		.17 ppt		.16 ppt		.23 ppt		.24 ppt		.13 ppt	
6 hdd		5 hdd		4 hdd		4 hdd		5 hdd		4 hdd		4 hdd	
1 cdd		2 cdd		2 cdd		2 cdd		3 cdd		2 cdd		3 cdd	
Highest Max 93-1936		Highest Max 93-1982		Highest Max 92-1987		Highest Max 98-1925		Highest Max 94-1987		Highest Max 92-1963		Highest Max 94-1965	
Lowest Max 55-1962		Lowest Max 55-1961		Lowest Max 57-1990		Lowest Max 48-1953		Lowest Max 45-1983		Lowest Max 54-1966		Lowest Max 50-1959	
Lowest Min 27-1928		Lowest Min 31-1953		Lowest Min 28-1921		Lowest Min 29-1953		Lowest Min 34-1953		Lowest Min 32-1953		Lowest Min 32-1966	
Highest Min 58-1982		Highest Min 72-1963		Highest Min 70-1963		Highest Min 70-1963		Highest Min 70-1964		Highest Min 71-1964		Highest Min 71-1961	
Greatest ppt 2.48-1973		Greatest ppt 1.38-1968		Greatest ppt 1.75-1953		Greatest ppt 1.40-1970		Greatest ppt 2.33-1976		Greatest ppt 2.51-1976		Greatest ppt 1.57-1958	

Normal 22	Actual	Normal 23	Actual	Normal 24	Actual	Normal 25	Actual	Normal 26	Actual	Normal 27	Actual	Normal 28	Actual
76.0 max		76.0 max		76.0 max		75.0 max		75.0 max		76.0 max		74.0 max	
53.0 min		54.0 min		53.0 min		54.0 min		54.0 min		54.0 min		53.0 min	
.16 ppt		.11 ppt		.08 ppt		.11 ppt		.09 ppt		.13 ppt		.12 ppt	
3 hdd		3 hdd		3 hdd		3 hdd		3 hdd		3 hdd		3 hdd	
3 cdd		3 cdd		3 cdd		3 cdd		3 cdd		3 cdd		2 cdd	
Highest Max 91-1965		Highest Max 93-1958		Highest Max 91-1975		Highest Max 89-1939		Highest Max 91-1987		Highest Max 92-1966		Highest Max 88-1970	
Lowest Max 52-1984		Lowest Max 57-1956		Lowest Max 58-1963		Lowest Max 57-1967		Lowest Max 55-1980		Lowest Max 61-1979		Lowest Max 53-1992	
Lowest Min 32-1931		Lowest Min 36-1909		Lowest Min 37-1909		Lowest Min 36-1910		Lowest Min 35-1910		Lowest Min 36-1920		Lowest Min 37-1965	
Highest Min 59-1961		Highest Min 69-1989		Highest Min 71-1989		Highest Min 68-1984		Highest Min 70-1975		Highest Min 70-1989		Highest Min 71-1970	
Greatest ppt 1.39-1985		Greatest ppt 3.22-1953		Greatest ppt .98-1973		Greatest ppt 1.14-1980		Greatest ppt .75-1990		Greatest ppt 1.85-1985		Greatest ppt 1.45-1960	

Normal 29	Actual	Normal 30	Actual
76.0 max		75.0 max	
54.0 min		55.0 min	
.11 ppt		.33 ppt	
3 hdd		3 hdd	
2 cdd		3 cdd	
Highest Max 92-1987		Highest Max 91-1987	
Lowest Max 57-1971		Lowest Max 56-1950	
Lowest Min 38-1969		Lowest Min 35-1908	
Highest Min 65-1985		Highest Min 69-1987	
Greatest ppt 1.70-1374		Greatest ppt 3.00-1970	

APRIL AVERAGES

TEMPERATURE	:	61.0°F
PRECIPITATION	:	3.63"
HEATING DEGREE DAYS	:	174
COOLING DEGREE DAYS	:	56