OKLAHOMA
MONTHLY SUMMARY
NOVEMBER 1991

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NOVEMBER 1991 OKLAHOMA SUMMARY

Bitter cold weather at the beginning of November gave way to pleasant conditions later in the month, but the warmer weather was too little, too late to prevent the month from being among the coldest on record. Preliminary data show a state-averaged temperature of 44.8 degrees, which is 4.5 degrees below normal. This places the month as the 6th coldest among 100 years of records and dropped the year-to-date to a near-normal 62.9 degrees. The frequent passage of cold fronts also brought above-normal precipitation to all but southwest Oklahoma. The state-averaged total of 2.83 inches was 0.78 inch above normal. This boosted the year-to-date total to 34.39 inches, 3.44 inches above normal.

Autumn 1991 ranked among the coldest and wettest on record. Heavy rains in September and October brought the 3-month total to 12.61 inches, which is 4.23 inches above the long-term average. This places autumn 1991 as the 10th wettest on record. An early cold wave in September combined with the extreme cold of early November dipped autumn's temperature to the 7th coldest of the last 100 years. The state-averaged temperature was 2.2 degrees below normal with a reading of 59.6 degrees.

November began in the midst of a winter storm which brought freezing temperatures and snow to all parts of the state. Goodwell reported the state's coldest temperature for five consecutive days from the 1st through the 5th, including the month's coldest reading of zero degrees on the third, although an unofficial report showed Guymon dipping to -1 degree that morning. The temperature barely warmed to double digits at several places on the 3rd, including a maximum temperature of 10 degrees at Goodwell. The extreme cold was accompanied by ice and snow, contributing to numerous accidents and hampering outdoor plans. Snow drifts of up to three feet impeded travel across parts of Texas and Beaver counties. Snow across central Oklahoma on the 2nd forced cancellation of Oklahoma State University's Homecoming parade due to slick roads.

Temperatures began to warm on the 5th, but the cold air was quickly reinforced by the passage of a cold front on the 7th. Snowfall totals of up to four inches were reported in sections of northwest Oklahoma. The freeze also caused heavy damage to fall crops, stopping the growth of many plants before they had matured. Especially hard-hit were cotton, soybean and grain sorghum. The peanut crop also suffered as precipitation hampered harvesting. The fall foliage color show was also cut short by the freeze which killed the leaves on the trees before they had a chance to change colors. The cold did help some crops however. Insects which had plagued winter wheat and alfalfa were killed by the early freeze.

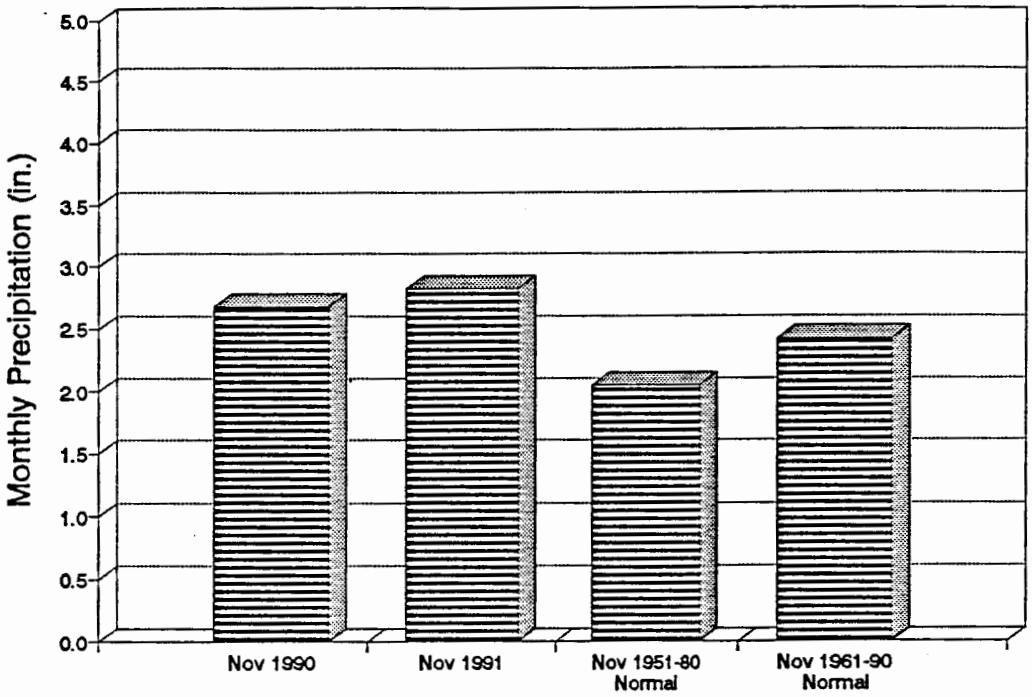
A change in the upper air pattern in the middle of the month cut the flow of cold Canadian air to the state, replacing it with warm air from the west. Temperatures rose to the upper 70's across much of eastern Oklahoma, and reached as high as 81 degrees at Poteau on the 19th, setting a new record for the date. The new pattern also brought heavy rains. Daily rainfall totals in excess of two inches were reported across eastern parts of the state on the 16th-18th and the 20th. The heaviest daily rainfall occurred on the 16th, with Hanna receiving 4.11 inches and Oktaha and Scipio reporting over three inches.

Another cold front swept across Oklahoma on the 22nd, dropping temperatures into the teens and 20's statewide in its wake, although daily maximum temperatures still climbed into the 50's and 60's across southern Oklahoma. The cold air quickly gave way to pleasant conditions by the 28th. Temperatures as warm as the mid-70's and very little rainfall statewide made Thanksgiving day very pleasant.

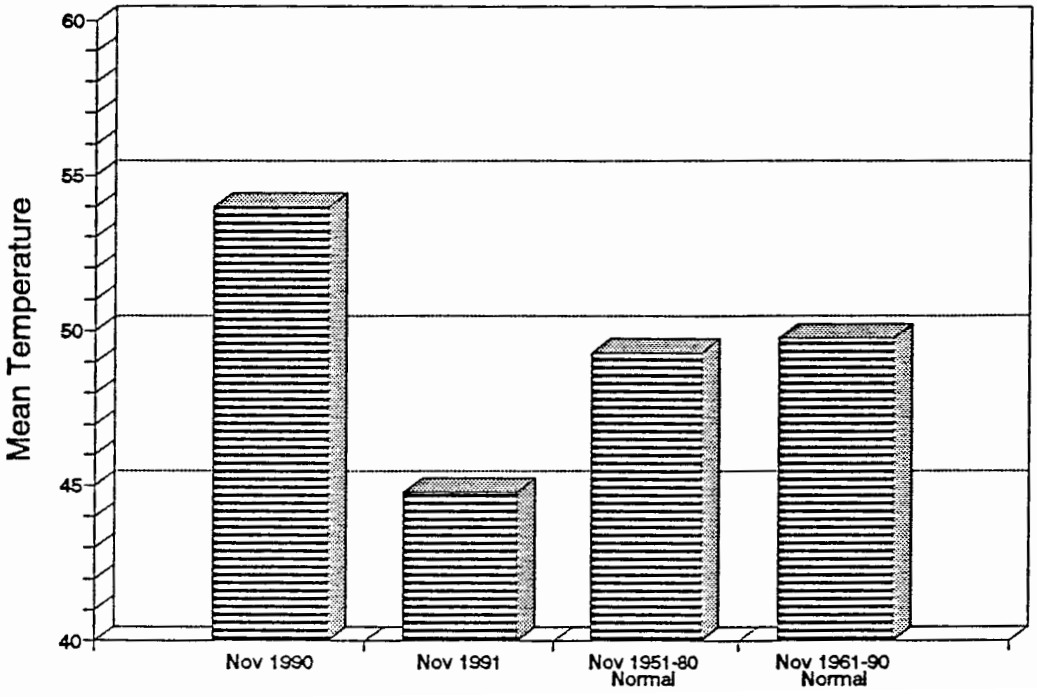
One final cold front made its effects felt as it passed through the state on the 29th. Severe thunderstorms were reported in parts of northeastern Oklahoma, and heavy rains fell once again across southeastern parts of the state. Cold air invaded Oklahoma in the wake of the front, setting conditions for more wintry weather, hampering travellers returning home from Thanksgiving vacations.

-Mark A. Shafer

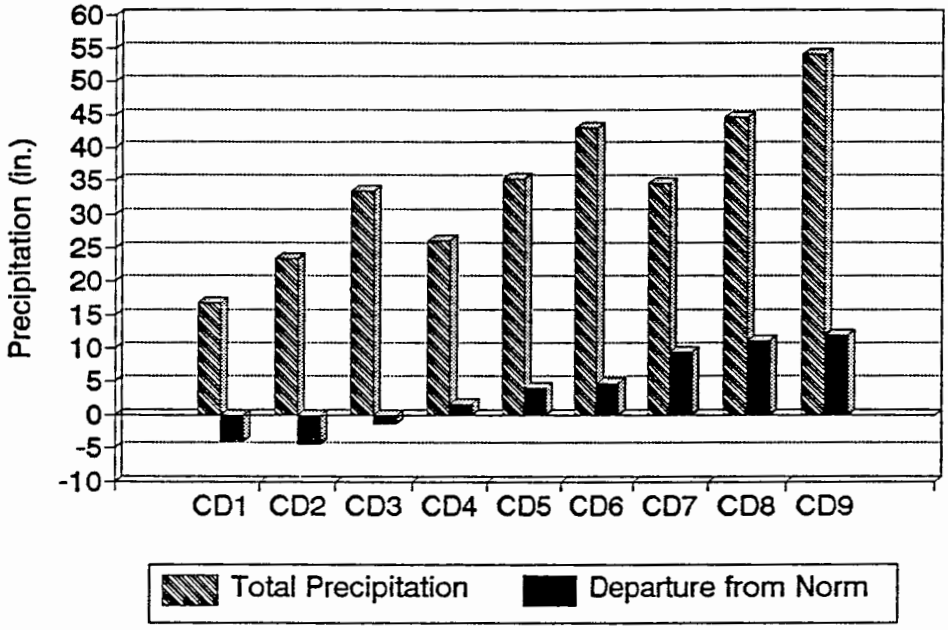
Comparison of Monthly Precipitation
Statewide Average for Oklahoma



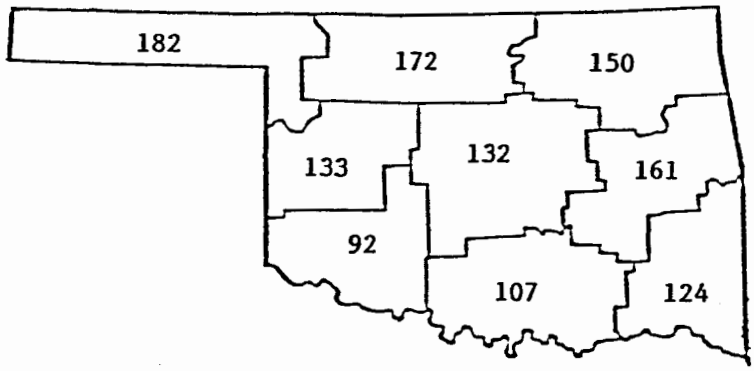
Comparison of Monthly Temperature
Statewide Average for Oklahoma



CD Averaged Precipitation
Jan-Nov 1991



NOVEMBER 1991 PERCENT OF NORMAL PRECIPITATION.



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

CD	MAX TEMP	DATE	LOCATION	MIN TEMP	DATE	LOCATION	MONTHLY PRECIP	LOCATION	24-HOUR PRECIP	DATE	LOCATION
1	77	15	GOODWELL	0	3	GOODWELL	2.23	LAVERNE	1.06	17	LAVERNE
2	75	30	BILLINGS	7	3	FT SUPPLY	3.89	RED ROCK	2.11	17	FREEDOM
3	76	19	KEYSTONE	10	8	HULAH DAM	6.30	KANSAS	2.22	18	KEYSTONE
	76	18	TULSA	10	8	JAY					
				10	3	MANNFORD					
4	74	18	ELK CITY	4	3	TALOGA	2.87	TALOGA	1.60	17	TALOGA
	74	18	ERICK								
	74	19	HAMMON								
5	76	18	BRISTOW	6	3	KINGFISHER	4.32	GUTHRIE	2.06	16	YALE
	76	18	CHANDLER								
	76	28	NORMAN								
6	79	17	LAKE EUFAULA	14	4	MCCURTAIN	8.36	WESTVILLE	4.11	16	HANNA
7	78	18	ALTUS	7	3	CARNEGIE	1.90	WICHITA MT	1.35	16	WILLOW
	78	18	MANGUM								
8	78	28	PAULS VALLEY	12	3	LINDSAY	3.80	DAISY	2.62	16	KETCHUM RANCH
	78	28	WAURIKA	12	3	MARLOW					
	78	29	WAURIKA DAM								
9	81	19	POTEAU	17	8	POTEAU	7.43	BROKEN BOW	2.80	20	BROKEN BOW
				17	3	WILBURTON					

TABLE OF 1990/1991 COMPARISONS

Station	November Temperature (F) 1990	1991	November Precipitation (in.) 1990	1991
Arnett	49.5	38.9	2.12	1.87
Enid	53.0	43.0	2.54	3.15
Mutual	51.2	39.1	1.39	2.43
Tulsa	57.8	46.9	2.41	2.84
Elk City	52.9	44.4	2.06	1.53
Oklahoma City	56.5	45.0	1.61	1.94
McAlester	57.5	48.2	3.20	3.81
Atlus Irr Sta	54.9	45.0	3.00	1.18
Durant	57.3	47.6	3.30	2.79
Ada	56.0	46.9	4.32	3.53
Antlers	56.4	47.7	2.41	2.49

EXTREMES

Variable	Station	Division	Observation	Date
Minimum temperature (F)	Beaver	1	-6	3
	Boise City	1	-6	3
Maximum temperature (F)	Poteau	9	81	19
Maximum 24-hour precipitation	Hanna	6	4.11"	16

NOVEMBER 1991 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	38.9	30	-6.8	69.	19	7.	3	783.0	204.0	.0	.0	1.872	30	.78	.90	16
BEAVER	593	1	37.3	30	-7.3	68.	15	-6.	3	831.0	219.0	.0	.0	1.620	30	.73	.80	17
BOISE CITY 2 E	908	1	41.0	30	-2.9	72.	9	-6.	3	721.0	88.0	.0	.0	1.480	30	.85	.68	15
BUFFALO	1243	1	41.6	30	-5.4	71.	13	6.	3	702.5	162.5	.0	.0	1.150	30	-.18	.65	16
FARGO	3070	1	*****	0	*****	****	0	****	0	******	******	******	******	2.212	30	1.19	.83	17
GAGE FAA APT	3407	1	41.5	30	-3.8	71.	18	5.	3	705.0	114.0	.0	.0	2.152	30	1.31	.88	16
GATE	3489	1	38.9	30	*****	68.	18	6.	2	783.5	******	.0	******	2.310	30	*****	1.40	16
GOODWELL RES ST	3628	1	38.4	30	-5.9	77.	15	0.	3	797.0	176.0	.0	.0	1.074	30	.43	.48	16
GUYMON	3835	1	43.0	22	*****	73.	9	14.	4	485.0	******	.0	******	.681	26	*****	.45	1
HOOKER	4298	1	37.6	30	-6.5	69.	15	0.	3	821.5	194.5	.0	.0	1.410	30	.65	.70	16
LAVERNE	5045	1	*****	0	*****	****	0	****	0	******	******	******	******	2.232	31	1.24	1.06	17
OPTIMA LAKE	6740	1	38.2	30	*****	70.	15	-1.	3	804.5	******	.0	******	1.410	30	*****	1.15	16
REGNIER	7534	1	*****	0	*****	****	0	****	0	******	******	******	******	1.080	30	.57	.81	16
TURPIN 4 SSE	9017	1	37.2	30	*****	66.	15	-5.	3	833.0	******	.0	******	1.470	29	*****	.68	17

NOVEMBER 1991 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	41.5	30	*****	70.	13	10.	3	706.0	******	.0	******	1.360	30	*****	1.26	16
VANCE AFB	302	2	*****	0	*****	****	0	****	0	******	******	******	******	3.375	29	*****	1.88	17
BILLINGS	755	2	43.2	30	*****	75.	30	11.	3	655.5	******	.0	******	3.105	30	1.22	1.10	17
BLACKWELL 2E	818	2	42.8	30	*****	70.	29	14.	3	665.5	******	.0	******	3.304	30	*****	.99	17
BRAMAN	1075	2	*****	0	*****	****	0	****	0	******	******	******	******	4.471	30	*****	1.42	17
CEDARDALE	1620	2	*****	0	*****	****	0	****	0	******	******	******	******	2.414	30	*****	1.12	17
CHEROKEE	1724	2	42.8	30	-4.5	71.	29	12.	3	667.0	136.0	.0	.0	5.350	30	4.07	4.05	16
ENID	2912	2	43.0	30	-5.5	71.	29	11.	3	660.5	165.5	.0	.0	3.150	29	*****	1.29	17
FT SUPPLY DAM	3304	2	39.1	30	-8.0	70.	19	7.	3	778.0	241.0	.0	.0	2.340	30	1.42	.87	17
FREEDOM	3358	2	40.7	30	*****	70.	14	10.	3	730.5	******	.0	******	2.630	30	*****	2.11	17
GREAT SALT PLNS	3740	2	40.5	30	*****	72.	30	13.	3	736.5	******	.0	******	2.911	22	*****	1.44	17
HARDY	3909	2	*****	0	*****	****	0	****	0	******	******	******	******	2.151	30	*****	.91	16
HELENA 1 SSE	4019	2	40.2	30	*****	70.	30	11.	4	743.5	******	.0	******	2.935	30	1.39	1.34	17
JEFFERSON	4573	2	42.4	30	-5.4	73.	29	8.	3	677.5	161.5	.0	.0	3.372	30	1.45	1.51	16
LAMONT	5013	2	*****	0	*****	****	0	****	0	******	******	******	******	3.201	30	*****	1.22	16
MEDFORD	5768	2	*****	0	*****	****	0	****	0	******	******	******	******	3.430	30	*****	1.65	16
MORRISON	6065	2	*****	0	*****	****	0	****	0	******	******	******	******	2.210	30	*****	1.05	17
MUTUAL	6139	2	39.1	30	-7.5	71.	19	8.	3	776.5	224.5	.0	.0	2.433	30	1.28	1.36	17
NEWKIRK	6278	2	42.5	30	-4.9	69.	29	11.	3	676.0	148.0	.0	.0	1.123	30	-.82	.33	20
ORIENTA	6751	2	*****	0	*****	****	0	****	0	******	******	******	******	2.540	30	*****	1.40	17
PERRY	7012	2	46.6	30	-3.0	73.	28	17.	8	551.5	89.5	.0	.0	2.930	30	1.13	1.11	16
PONCA CITY FAA	7201	2	44.2	29	-2.4	72.	28	15.	3	602.5	50.5	.0	.0	3.855	30	1.81	1.23	1
RED ROCK 1 NNE	7505	2	*****	0	*****	****	0	****	0	******	******	******	******	3.890	30	2.17	1.06	16
WAYNOKA	9404	2	41.3	30	-6.6	72.	18	10.	3	709.5	196.5	.0	.0	1.960	30	.68	1.01	16
WOODWARD	9760	2	*****	0	*****	****	0	****	0	******	******	******	******	2.220	30	*****	1.07	16

NOVEMBER 1991 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	44.4	30	*****	74.	28	13.	8	617.0	******	.0	******	3.082	30	.76	1.31	16
BARTLESVILLE 2W	548	3	44.5	30	-3.8	75.	28	12.	8	617.5	116.5	2.0	2.0	3.513	30	1.26	1.16	17
BIXBY	782	3	43.9	30	-4.8	75.	19	15.	3	635.5	146.5	3.0	3.0	3.340	30	.61	1.15	1
BURBANK	1256	3	*****	0	*****	****	0	****	0	******	******	******	******	2.534	30	*****	1.72	16
CHELSEA 4 S	1717	3	*****	0	*****	****	0	****	0	******	******	******	******	2.960	30	*****	1.31	16
CLAREMORE	1828	3	43.8	30	-4.6	75.	29	14.	8	638.0	140.0	3.0	3.0	4.420	30	1.63	1.49	1
CLEVELAND 5 WSW	1902	3	46.3	30	*****	75.	28	12.	3	561.0	******	.0	******	3.800	30	*****	1.50	16
FORAKER	3250	3	*****	0	*****	****	0	****	0	******	******	******	******	1.212	30	-1.16	.60	30
HOLLOW	4258	3	*****	0	*****	****	0	****	0	******	******	******	******	2.331	28	*****	1.30	1
HOMINY	4289	3	*****	0	*****	****	0	****	0	******	******	******	******	4.131	30	2.07	1.54	16
HULAH DAM	4393	3	44.1	19	*****	75.	29	10.	8	398.5	******	2.0	******	2.972	21	*****	1.28	17
JAY TOWER	4567	3	43.2	30	*****	72.	19	10.	8	655.0	******	.0	******	4.710	30	*****	1.75	16
KANSAS 1 ESE	4672	3	45.3	30	*****	73.	18	11.	8	591.0	******	.5	******	6.305	30	*****	2.10	16
KEYSTONE DAM	4812	3	44.1	30	*****	76.	19	13.	8	626.0	******	.0	******	3.732	28	*****	2.22	18
LENAPAH	5118	3	*****	0	*****	****	0	****	0	******	******	******	******	3.880	30	*****	1.05	1
MANNFORD 6 NW	5522	3	45.5	30	*****	75.	18	10.	3	584.0	******	.0	******	3.940	30	1.74	1.06	16
MARAMEC	5540	3	*****	0	*****	****	0	****	0	******	******	******	******	3.723	30	1.71	1.53	16
MIAMI	5855	3	42.1	29	-6.3	73.	18	12.	8	665.5	167.5	.0	.0	2.672	30	-.28	1.28	16
NOWATA	6485	3	45.4	30	-3.2	74.	18	12.	8	587.5	95.5	.0	.0	3.220	30	.67	1.16	16
ONETA 1 WNW	6713	3	*****	0	*****	****	0	****	0	******	******	******	******	3.251	30	*****	1.20	1
PAWHUSKA	6935	3	44.4	30	-3.6	74.	28	12.	8	618.5	108.5	.5	.5	3.472	30	1.44	1.36	17
PAWNEE	6940	3	*****	0	*****	****	0	****	0	******	******	******	******	2.562	30	.68	.89	16
PRYOR 6 N	7309	3	43.9	28	*****	74.	19	12.	8	592.0	******	1.0	******	4.635	29	*****	1.56	16
RALSTON	7390	3	45.5	30	*****	75.	28	12.	8	587.0	******	1.0	******	2.446	30	.50	.82	17
RAMONA 4 N	7394	3	*****	0	*****	****	0	****	0	******	******	******	******	4.251	30	*****	1.25	16
SKIATOOK	8258	3	*****	0	*****	****	0	****	0	******	******	******	******	3.880	30	1.53	2.07	17
SPAVINAW	8380	3	47.4	30	*****	74.	18	13.	3	527.5	******	.5	******	4.830	30	1.62	1.51	16
TULSA WSO APT	8992	3	46.9	30	-2.3	76.	18	16.	3	545.0	71.0	3.0	3.0	2.841	30	.28	.86	1
UPPER SPAVINAW	9101	3	44.9	27	*****	73.	18	12.	8	544.0	******	.0	******	5.770	28	*****	1.75	16
VINITA 2 N	9203	3	44.8	30	-3.1	74.	19	11.	8	607.0	94.0	1.0	1.0	5.390	30	2.43	1.60	16
WAGONER	9247	3	46.8	30	-3.3	75.	18	14.	8	549.0	102.0	1.5	1.5	4.490	30	1.29	1.62	16
WANN	9298	3	*****	0	*****	****	0	****	0	******	******	******	******	3.400	30	*****	1.03	17
WYNONA	9792	3	*****	0	*****	****	0	****	0	******	******	******	******	3.517	30	*****	1.50	16

NOVEMBER 1991 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	40.0	25	*****	71.	19	9.	3	625.0	******	.0	******	2.614	28	*****	1.23	16
CHEYENNE	1738	4	*****	0	*****	****	0	****	0	******	******	******	******	1.550	30	*****	1.55	16
CLINTON	1909	4	45.1	30	-3.4	73.	18	9.	3	598.0	103.0	.0	.0	1.510	30	.04	.71	17
COLONY	2039	4	*****	0	*****	****	0	****	0	******	******	******	******	1.810	30	*****	.97	17
CORDELL	2125	4	*****	0	*****	****	0	****	0	******	******	******	******	1.241	30	-.15	.48	16
ELK CITY 1 E	2849	4	43.7	29	*****	74.	18	11.	3	617.0	******	.0	******	1.534	23	*****	.81	17
ERICK 4 E	2944	4	44.3	30	-4.1	74.	18	12.	3	620.5	122.5	.0	.0	1.254	30	.26	.97	17
GEARY	3497	4	43.2	30	-5.6	72.	28	9.	3	653.0	167.0	.0	.0	1.060	30	-.35	.50	16
HAMMON 1 NNE	3871	4	40.2	30	-7.3	74.	19	5.	3	745.0	220.0	.0	.0	1.821	30	.43	.85	17
LEEDEY	5090	4	*****	0	*****	****	0	****	0	******	******	******	******	2.590	30	1.26	1.50	16
MACKIE 4 NNW	5463	4	*****	0	*****	****	0	****	0	******	******	******	******	1.470	30	*****	.94	17
MORAVIA 2 NNE	6035	4	*****	0	*****	****	0	****	0	******	******	******	******	1.674	30	.62	1.04	17
OKEENE	6629	4	43.4	30	-5.7	71.	29	10.	3	647.5	170.5	.0	.0	2.450	30	.85	1.24	17
RETROP	7565	4	*****	0	*****	****	0	****	0	******	******	******	******	1.600	30	*****	.92	17
REYDON	7579	4	45.3	30	*****	72.	18	17.	3	590.5	******	.0	******	1.554	23	*****	1.50	16
SAYRE	7952	4	*****	0	*****	****	0	****	0	******	******	******	******	1.280	30	.19	.90	17
SWEETWATER 2 E	8652	4	*****	0	*****	****	0	****	0	******	******	******	******	1.461	30	*****	1.22	16
TALOGA	8708	4	41.6	30	-5.4	72.	18	4.	3	701.5	161.5	.0	.0	2.870	30	1.40	1.60	17
THOMAS	8815	4	*****	0	*****	****	0	****	0	******	******	******	******	2.050	30	*****	.81	15
VICI	9172	4	*****	0	*****	****	0	****	0	******	******	******	******	2.091	30	*****	.90	16
WATONGA	9364	4	43.5	30	*****	71.	29	7.	3	644.0	******	.0	******	2.201	30	.78	.75	17
WEATHERFORD	9422	4	42.0	30	-6.9	71.	30	9.	3	689.0	206.0	.0	.0	1.770	30	.41	.94	17

NOVEMBER 1991 SUMMARY FOR CENTRAL DIVISION (CD5)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
AMBER	200	5	*****	0	*****	****	0	****	0	******	******	******	******	1.860	30	*****	.67	16
TINKER AFB	325	5	*****	0	*****	****	0	****	0	******	******	******	******	2.203	29	*****	.78	17
BLANCHARD 2 SSW	830	5	46.8	30	*****	75.	28	10.	3	548.5	******	3.5	******	1.774	29	*****	.69	17
BRISTOW	1144	5	46.0	30	-3.7	76.	18	13.	3	570.5	106.5	.5	-4.5	3.532	30	1.20	1.32	17
CHANDLER	1684	5	46.0	28	*****	76.	18	12.	3	534.0	******	1.0	******	3.550	29	*****	1.42	17
CHICKASHA EX ST	1750	5	45.0	30	-5.0	74.	28	10.	3	602.0	152.0	2.5	2.5	1.660	30	.11	.66	16
COX CITY 1 E	2196	5	*****	0	*****	****	0	****	0	******	******	******	******	2.570	30	*****	1.20	17
CRESCENT	2242	5	*****	0	*****	****	0	****	0	******	******	******	******	2.750	30	*****	1.04	17
CUSHING	2318	5	43.1	29	-5.8	74.	30	13.	4	639.0	156.0	3.5	3.5	2.440	30	.43	1.25	16
EL RENO 1 N	2818	5	44.6	30	-3.9	73.	28	10.	3	611.0	116.0	.0	.0	2.790	30	1.15	.77	17
GUTHRIE	3821	5	47.1	29	-2.2	75.	29	11.	3	525.5	54.5	5.5	5.5	4.320	29	*****	1.45	16
HENNESSEY 2 SE	4055	5	43.4	30	-5.1	70.	29	8.	3	649.0	154.0	.0	.0	2.370	30	.74	.85	16
INGALLS	4489	5	*****	0	*****	****	0	****	0	******	******	******	******	2.631	30	*****	1.19	16
KINGFISHER 2 SE	4861	5	43.8	29	-5.1	73.	28	6.	3	614.0	131.0	.0	.0	2.350	30	.82	.57	16
KONAWA	4915	5	*****	0	*****	****	0	****	0	******	******	******	******	3.771	30	1.63	1.58	16
MARSHALL	5589	5	*****	0	*****	****	0	****	0	******	******	******	******	2.400	30	.77	.91	17
MEEKER 4 W	5779	5	45.9	30	-3.4	74.	28	12.	3	573.0	102.0	.5	.5	1.980	30	-.07	.73	16
MULHALL	6110	5	*****	0	*****	****	0	****	0	******	******	******	******	2.451	30	*****	.86	16
NORMAN 3 S	6386	5	45.9	30	*****	76.	28	12.	3	579.0	******	5.0	******	3.002	30	.96	1.17	16
OILTON 2 SE	6616	5	*****	0	*****	****	0	****	0	******	******	******	******	1.770	30	*****	1.12	15
OKEMAH	6638	5	47.3	30	-3.5	75.	18	14.	3	537.0	108.0	4.5	4.5	2.640	30	.20	1.04	17
OKLAHOMA CTY WS	6661	5	45.0	30	-3.8	74.	28	11.	3	601.5	115.5	.5	.5	1.943	30	.41	1.32	16
PERKINS	7003	5	*****	0	*****	****	0	****	0	******	******	******	******	2.570	30	.50	1.09	16
PIEDMONT	7068	5	*****	0	*****	****	0	****	0	******	******	******	******	2.271	30	*****	.85	17
PRAGUE	7264	5	*****	0	*****	****	0	****	0	******	******	******	******	2.133	30	-.08	.70	17
PURCELL 5 SW	7327	5	46.8	30	-2.8	75.	28	10.	3	548.5	81.5	2.5	2.5	2.701	30	.64	.87	17
SEMINOLE	8042	5	47.6	30	-4.1	75.	28	14.	3	526.5	122.5	5.5	.5	2.410	30	-.11	1.06	17
SHAWNEE	8110	5	*****	0	*****	****	0	****	0	******	******	******	******	3.060	30	.72	.95	17
STELLA	8479	5	*****	0	*****	****	0	****	0	******	******	******	******	2.800	30	*****	.84	16
STILLWATER 2 W	8501	5	44.2	30	-4.7	75.	29	14.	8	628.0	145.0	4.5	4.5	2.720	30	.94	1.01	17
STROUD 1 N	8563	5	*****	0	*****	****	0	****	0	******	******	******	******	2.774	30	*****	.74	1
TECUMSEH	8751	5	*****	0	*****	****	0	****	0	******	******	******	******	2.881	30	*****	.73	17
TROUSDALE	8960	5	*****	0	*****	****	0	****	0	******	******	******	******	3.140	30	*****	1.46	18
UNION CITY 1 SE	9086	5	*****	0	*****	****	0	****	0	******	******	******	******	2.200	30	.14	.72	17
WELTY 1 SSE	9479	5	*****	0	*****	****	0	****	0	******	******	******	******	2.951	30	*****	.95	17
WEWOKA	9575	5	*****	0	*****	****	0	****	0	******	******	******	******	4.000	30	1.77	1.51	17
YALE	9800	5	42.8	28	*****	72.	18	13.	3	622.5	******	.0	******	2.400	30	*****	2.06	16

NOVEMBER 1991 SUMMARY FOR EAST CENTRAL DIVISION (CD6)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ASHLAND	364	6	*****	0	*****	****	0	****	0	******	******	******	******	4.132	30	*****	1.38	16
BEGGS	631	6	*****	0	*****	****	0	****	0	******	******	******	******	3.761	30	*****	1.08	17
BOYNTON	1027	6	*****	0	*****	****	0	****	0	******	******	******	******	5.211	30	*****	2.05	16
CALVIN	1391	6	*****	0	*****	****	0	****	0	******	******	******	******	5.681	30	2.99	2.75	16
CHECOTAH	1711	6	*****	0	*****	****	0	****	0	******	******	******	******	4.071	30	1.23	1.80	16
CLAYTON 11 WNW	1858	6	*****	0	*****	****	0	****	0	******	******	******	******	2.870	30	*****	1.24	1
DEWAR 2 NE	2485	6	*****	0	*****	****	0	****	0	******	******	******	******	4.440	30	1.75	2.25	16
DUSTIN	2690	6	*****	0	*****	****	0	****	0	******	******	******	******	4.440	30	*****	1.93	16
EUFAULA	2993	6	48.5	29	*****	76.	15	18.	3	481.5	******	3.0	******	4.521	29	*****	1.97	16
HANNA	3884	6	47.1	30	*****	78.	15	15.	3	541.5	******	5.5	******	6.790	30	3.85	4.11	16
HARTSHORNE	3946	6	*****	0	*****	****	0	****	0	******	******	******	******	3.821	30	*****	1.31	1
HASKELL	3956	6	*****	0	*****	****	0	****	0	******	******	******	******	4.070	30	1.18	1.72	16
HOLDENVILLE	4235	6	46.6	30	-4.8	74.	28	15.	3	554.5	141.5	3.0	3.0	2.821	30	.42	1.75	16
LAKE EUFAULA	4975	6	46.4	29	*****	79.	17	17.	8	544.0	******	5.5	******	3.881	29	*****	1.35	1
LYONS 2 N	5437	6	*****	0	*****	****	0	****	0	******	******	******	******	6.701	30	3.75	2.36	29
MARBLE CITY	5546	6	*****	0	*****	****	0	****	0	******	******	******	******	7.453	30	*****	2.00	30
MCALESTER FAA	5664	6	48.2	30	-2.6	78.	15	19.	8	509.5	76.5	6.5	-.5	3.812	30	.74	1.24	17
MCCURTAIN 1 SE	5693	6	48.6	30	*****	77.	15	14.	4	496.5	******	5.0	******	3.825	30	.24	1.14	17
MUSKOGEE	6130	6	47.1	30	-3.0	76.	18	15.	3	540.5	93.5	2.5	2.5	3.731	30	.75	1.52	16
OKMULGEE W W	6670	6	44.1	30	-6.5	76.	19	15.	9	631.0	199.0	3.5	3.5	4.650	30	2.02	1.50	16
OKTAHA 2 NE	6678	6	*****	0	*****	****	0	****	0	******	******	******	******	6.060	30	*****	3.35	16
QUINTON	7372	6	*****	0	*****	****	0	****	0	******	******	******	******	4.142	30	.90	1.39	30
SALLISAW 2 NE	7862	6	46.2	30	-4.5	76.	15	17.	8	565.5	131.5	1.5	-3.5	3.812	30	.40	1.53	17
SCIPIO	7979	6	*****	0	*****	****	0	****	0	******	******	******	******	5.000	30	*****	3.31	16
SCRAPER	7993	6	*****	0	*****	****	0	****	0	******	******	******	******	4.960	30	*****	2.15	16
SHORT	8170	6	*****	0	*****	****	0	****	0	******	******	******	******	4.232	30	*****	1.38	17
STILWELL 1 NE	8506	6	46.5	30	*****	73.	18	12.	8	553.5	******	.0	******	5.981	30	2.73	1.66	16
TAHLEQUAH	8677	6	46.3	30	.0	76.	18	11.	3	561.0	85.0	.0	-5.0	6.221	30	3.02	2.30	16
WEBBERS FALLS	9445	6	45.1	30	-4.2	77.	16	15.	8	600.0	129.0	3.5	3.5	5.361	30	2.37	1.68	16
WESTVILLE	9523	6	*****	0	*****	****	0	****	0	******	******	******	******	8.362	30	*****	2.34	30
WETUMKA 3 NE	9571	6	*****	0	*****	****	0	****	0	******	******	******	******	4.142	30	1.37	1.52	16

NOVEMBER 1991 SUMMARY FOR SOUTHWEST DIVISION (CD7)

NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ALTUS IRR STA	179	7	45.4	30	-5.8	78.	18	16.	3	588.5	174.5	.0	.0	1.180	30	.16	.69	16
ALTUS DAM	184	7	45.4	30	*****	77.	19	14.	3	587.0	******	.0	******	1.060	30	.04	.50	16
ANADARKO	224	7	45.9	24	*****	74.	29	17.	24	459.0	******	.0	******	1.540	30	-.04	.73	16
APACHE	260	7	*****	0	*****	****	0	****	0	******	******	******	******	1.780	30	*****	.56	17
ALTUS AFB	447	7	*****	0	*****	****	0	****	0	******	******	******	******	1.321	30	*****	.70	17
CARNEGIE 2 ENE	1504	7	45.6	30	-3.9	74.	28	7.	3	582.0	117.0	1.0	1.0	1.090	30	-.23	.65	16
CHATTANOOGA	1706	7	47.5	30	-3.4	75.	28	17.	3	524.5	101.5	.5	.5	.991	30	-.38	.37	16
DUNCAN 12 W	2668	7	*****	0	*****	****	0	****	0	******	******	******	******	1.143	30	*****	.65	15
FREDERICK	3353	7	44.8	30	-7.4	75.	19	17.	3	606.5	217.5	.0	-5.0	.690	30	-.72	.62	16
GRANDFIELD 4 NW	3709	7	*****	0	*****	****	0	****	0	******	******	******	******	.840	30	-.71	.31	17
HOBART FAA APT	4204	7	44.6	30	-3.9	73.	18	11.	3	611.5	116.5	.5	.5	1.591	30	.51	.62	17
HOLLIS	4249	7	45.4	29	-5.0	76.	18	13.	4	569.5	131.5	.0	.0	1.430	29	*****	.69	15
HOLLISTER	4250	7	*****	0	*****	****	0	****	0	******	******	******	******	.540	30	*****	.31	16
LAWTON	5063	7	45.2	30	-5.7	75.	29	16.	3	593.5	165.5	.0	.0	1.200	30	-.55	.45	17
FORT SILL	5068	7	46.0	30	*****	75.	28	16.	3	571.0	******	.0	******	.868	30	-.88	.58	16
LOOKEBA 2 ENE	5329	7	*****	0	*****	****	0	****	0	******	******	******	******	1.292	30	*****	.40	17
MANGUM RES STA	5509	7	46.0	30	-4.2	78.	18	11.	3	569.0	125.0	.0	.0	1.340	30	.43	.87	16
RANDLETT 9 E	7403	7	*****	0	*****	****	0	****	0	******	******	******	******	.831	30	*****	.42	16
ROOSEVELT	7727	7	*****	0	*****	****	0	****	0	******	******	******	******	1.400	30	.16	.58	17
SEDAN	8016	7	*****	0	*****	****	0	****	0	******	******	******	******	.790	30	*****	.62	17
SNYDER	8299	7	*****	0	*****	****	0	****	0	******	******	******	******	1.371	30	.14	.91	17
VINSON 3 WNW	9212	7	*****	0	*****	****	0	****	0	******	******	******	******	1.202	30	.18	.69	17
WALTERS	9278	7	48.2	30	-3.5	76.	28	18.	3	507.0	92.0	2.5	-3.5	.881	30	-.95	.70	16
WICHITA MT WLR	9629	7	43.0	27	*****	73.	29	11.	4	593.0	******	.0	******	1.900	30	.36	.45	16
WILLOW	9668	7	*****	0	*****	****	0	****	0	******	******	******	******	1.801	30	*****	1.35	16

NOVEMBER 1991 SUMMARY FOR SOUTH CENTRAL DIVISION (CD8)

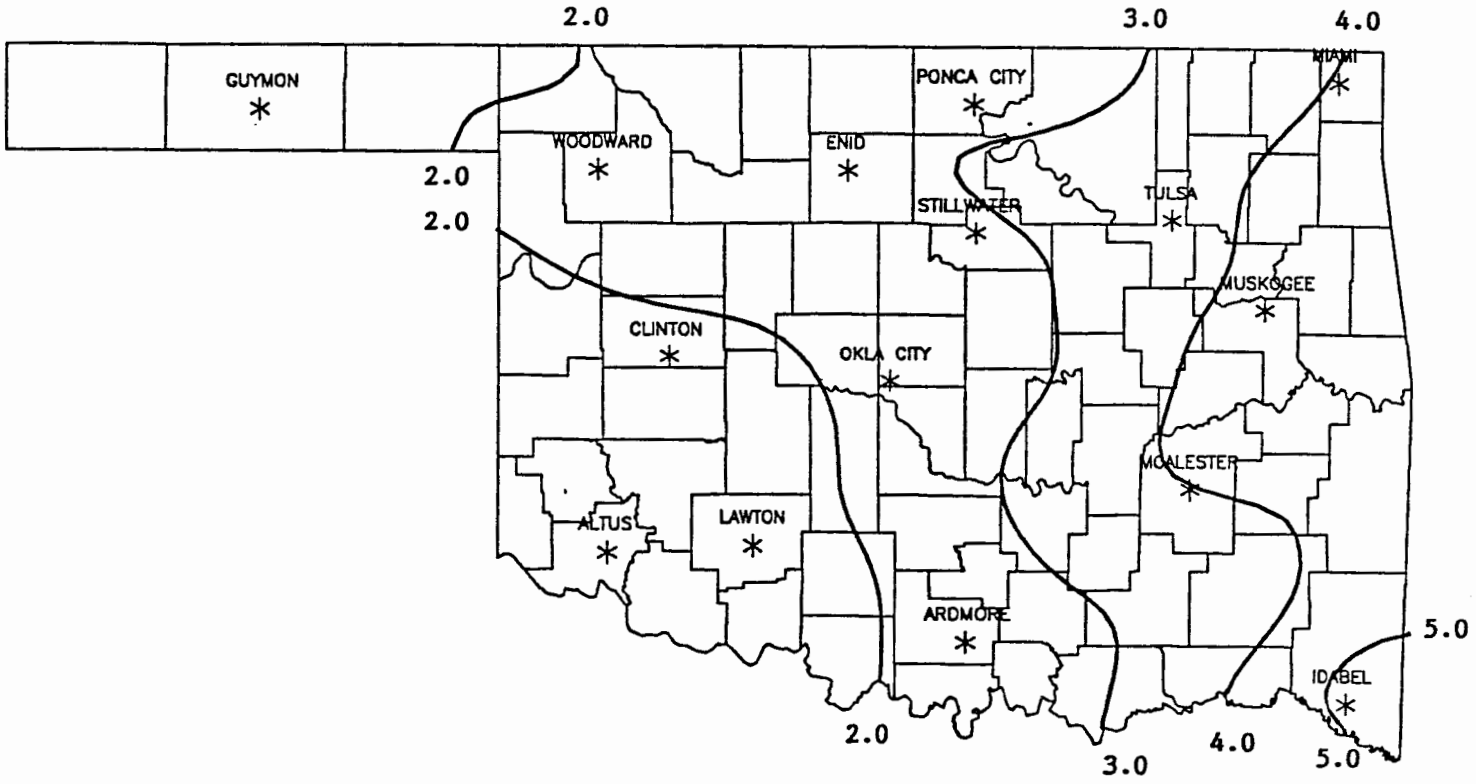
NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ADA	17	8	46.8	30	-5.0	74.	28	14.	3	547.5	143.5	2.0	-6.0	3.530	30	.98	2.26	16
ALLEN	147	8	*****	0	*****	****	0	****	0	******	******	******	******	3.500	30	*****	2.50	16
ARDMORE	292	8	49.4	30	-4.9	76.	28	19.	3	478.0	148.0	9.0	.0	1.690	30	-.55	1.08	16
ATOKA DAM	394	8	47.4	18	*****	76.	19	20.	5	317.5	******	.0	******	2.721	23	*****	1.37	18
BOKCHITO	917	8	*****	0	*****	****	0	****	0	******	******	******	******	3.080	30	*****	1.06	17
CANEY	1437	8	49.0	29	*****	73.	28	20.	8	467.0	******	4.0	******	2.000	30	*****	1.17	17
CENTRAHOMA	1648	8	*****	0	*****	****	0	****	0	******	******	******	******	4.050	30	*****	1.30	17
CHICKASAW NRA	1745	8	46.6	30	*****	76.	29	17.	8	558.0	******	5.5	******	3.460	30	*****	1.42	17
COLEMAN	2011	8	*****	0	*****	****	0	****	0	******	******	******	******	1.570	30	*****	.65	15
COMANCHE	2054	8	*****	0	*****	****	0	****	0	******	******	******	******	1.740	30	*****	.63	17
DAISY 4 ENE	2354	8	*****	0	*****	****	0	****	0	******	******	******	******	3.802	30	.44	1.37	1
DUNCAN	2660	8	46.2	30	-5.8	76.	29	16.	3	568.5	171.5	3.5	-3.5	1.521	30	-.38	.52	16
DURANT USDA	2678	8	47.8	30	*****	76.	19	20.	8	521.5	******	6.5	******	2.790	30	-.01	1.30	17
ELMORE CITY	2872	8	*****	0	*****	****	0	****	0	******	******	******	******	2.170	30	*****	.80	16
FARRIS 3 WNW	3083	8	*****	0	*****	****	0	****	0	******	******	******	******	2.830	30	*****	1.19	17
GRADY	3688	8	*****	0	*****	****	0	****	0	******	******	******	******	2.470	30	*****	1.72	15
HEALDTON	4001	8	47.2	30	*****	76.	28	17.	3	536.0	******	3.0	******	2.960	30	.92	1.72	16
HENNEPIN	4052	8	*****	0	*****	****	0	****	0	******	******	******	******	2.392	30	*****	1.15	16
KETCHUM RANCH	4780	8	*****	0	*****	****	0	****	0	******	******	******	******	3.070	30	*****	2.62	16
LEHIGH	5108	8	*****	0	*****	****	0	****	0	******	******	******	******	2.521	30	*****	1.15	17
LINDSAY 2 W	5216	8	47.0	30	*****	76.	28	12.	3	544.5	******	4.0	******	2.901	30	.82	1.37	16
LOCO 6 SE	5247	8	*****	0	*****	****	0	****	0	******	******	******	******	1.990	20	*****	1.14	16
MADILL	5468	8	49.8	29	-3.2	75.	29	17.	3	454.0	88.0	12.5	6.5	1.901	30	-.56	1.21	16
MARIETTA	5563	8	49.8	30	-3.1	77.	28	21.	8	465.0	94.0	10.5	2.5	2.490	30	.03	1.16	17
MARLOW 1 WSW	5581	8	47.6	30	*****	75.	28	12.	3	521.5	******	.5	******	1.671	30	-.28	.60	16
MCGEE CREEK DAM	5713	8	47.2	30	*****	77.	19	20.	8	537.5	******	3.5	******	3.200	30	*****	1.28	17
PAULS VALLEY	6926	8	47.8	30	-3.6	78.	28	14.	3	520.0	107.0	5.5	5.5	2.810	30	.64	.60	17
PONTOTOC	7214	8	*****	0	*****	****	0	****	0	******	******	******	******	2.681	30	-.21	1.10	15
TISHOMINGO NWLR	8884	8	49.3	27	*****	75.	29	19.	8	428.0	******	5.0	******	2.761	30	.27	.94	16
TUSSY	9032	8	*****	0	*****	****	0	****	0	******	******	******	******	1.850	30	*****	.91	16
WAURIKA	9395	8	49.6	29	-3.0	78.	28	19.	3	461.5	82.5	14.5	7.5	1.521	30	-.41	.70	17
WAURIKA DAM	9399	8	46.9	20	*****	78.	29	19.	4	363.0	******	.5	******	1.840	23	*****	.90	17

NOVEMBER 1991 SUMMARY FOR SOUTHEAST DIVISION (CD9)

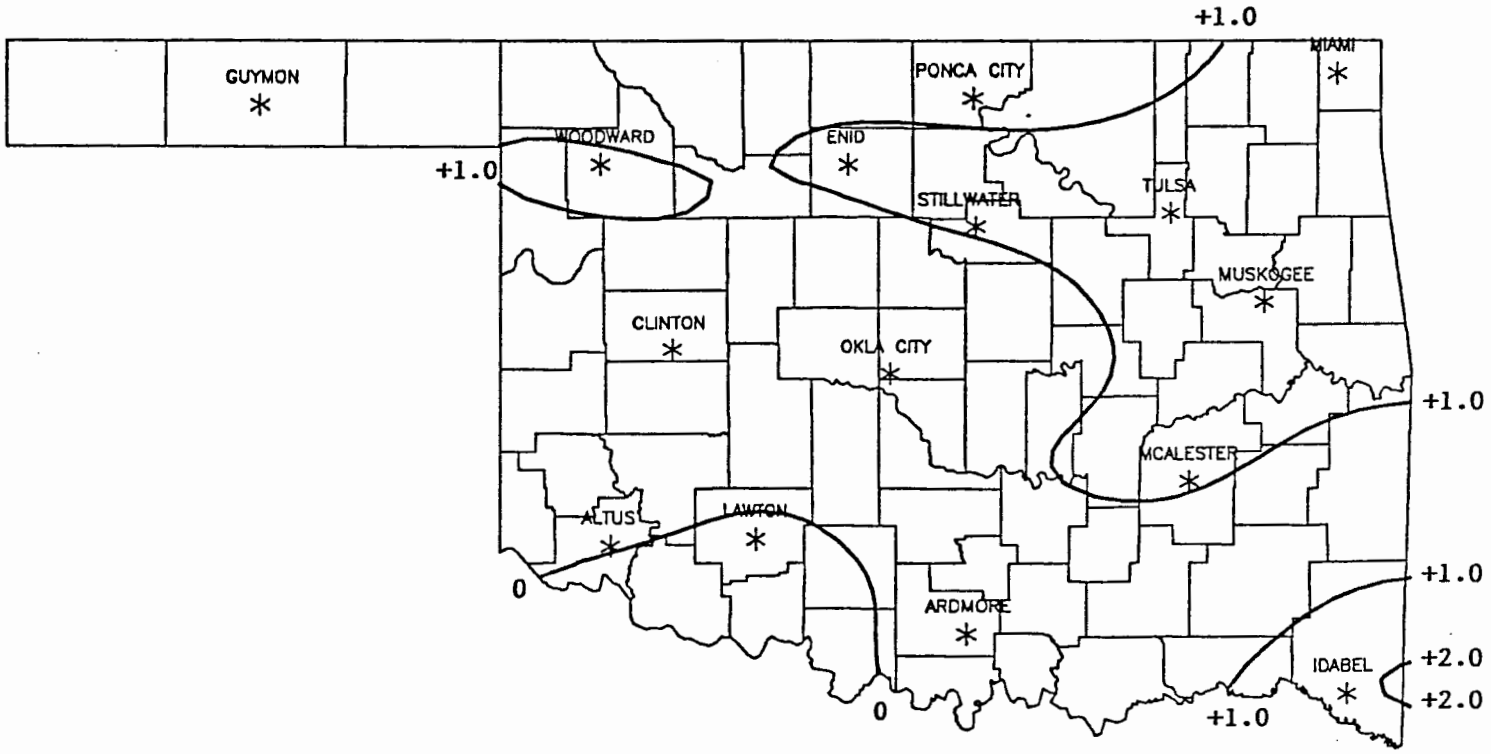
NAME	ID	CD	MEAN TEMP	NUM OBS	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEG DAY	DEV FROM NORM	COOL DEG DAY	DEV FROM NORM	TOT PPT	NUM OBS	DEV FROM NORM	MAX 24-HR	DAY
ANTLERS	256	9	48.0	30	-3.8	75.	18	21.	9	513.0	113.0	3.5	3.5	2.490	30	-.69	1.19	16
BATTIEST 1 SSW	567	9	45.4	30	*****	72.	18	17.	9	589.0	******	.0	******	4.722	30	*****	1.02	20
BEAR MT TWR	584	9	45.5	16	*****	72.	19	20.	8	312.0	******	.0	******	4.400	30	.68	1.45	18
BENGAL	670	9	*****	0	*****	****	0	****	0	******	******	******	******	4.691	30	*****	1.37	17
BOSWELL 4 NNW	980	9	50.2	30	*****	76.	15	20.	8	455.5	******	12.5	******	2.640	30	-.38	.87	17
BROKEN BOW 1 N	1162	9	*****	0	*****	****	0	****	0	******	******	******	******	7.430	30	3.41	2.80	20
BROKEN BOW DAM	1168	9	46.2	30	*****	77.	19	18.	10	565.5	******	.0	******	7.030	30	*****	2.18	20
CARNASAW TWR	1499	9	*****	0	*****	****	0	****	0	******	******	******	******	6.080	30	1.80	2.42	20
CARTER TWR	1544	9	*****	0	*****	****	0	****	0	******	******	******	******	4.280	30	.46	1.65	17
HEE MT TWR	4017	9	*****	0	*****	****	0	****	0	******	******	******	******	5.330	30	*****	1.24	17
FANSHAWE	3065	9	*****	0	*****	****	0	****	0	******	******	******	******	4.040	30	.09	1.10	17
FLAGPOLE TWR	3169	9	*****	0	*****	****	0	****	0	******	******	******	******	3.090	30	*****	1.23	1
HEAVENER 1 SE	4008	9	*****	0	*****	****	0	****	0	******	******	******	******	3.440	30	-.25	1.40	20
HUGO	4384	9	50.0	30	-3.5	75.	18	21.	8	458.5	101.5	7.0	-2.0	5.310	30	2.05	1.70	17
IDABEL	4451	9	47.9	30	-4.7	76.	19	22.	9	517.0	137.0	3.5	-4.5	6.161	30	2.33	2.56	20
POTEAU W W	7254	9	47.1	30	*****	81.	19	17.	9	542.0	******	4.5	******	3.951	30	*****	1.26	16
SMITHVILLE 1 W	8285	9	47.3	30	*****	75.	18	17.	9	533.5	******	1.5	******	4.054	30	*****	1.35	17
SPIRO	8416	9	*****	0	*****	****	0	****	0	******	******	******	******	5.061	30	1.21	1.41	20
TUSKAHOMA	9023	9	48.2	30	*****	75.	18	18.	8	510.0	******	6.0	******	5.323	30	*****	1.29	20
VALLIANT 3 W	9118	9	*****	0	*****	****	0	****	0	******	******	******	******	5.010	30	1.41	1.48	17
WILBURTON 9 ENE	9634	9	47.3	30	-3.6	77.	29	17.	3	541.0	113.0	9.0	9.0	3.391	30	-.19	.95	16

NOVEMBER 1991 CLIMATE DIVISION SUMMARY

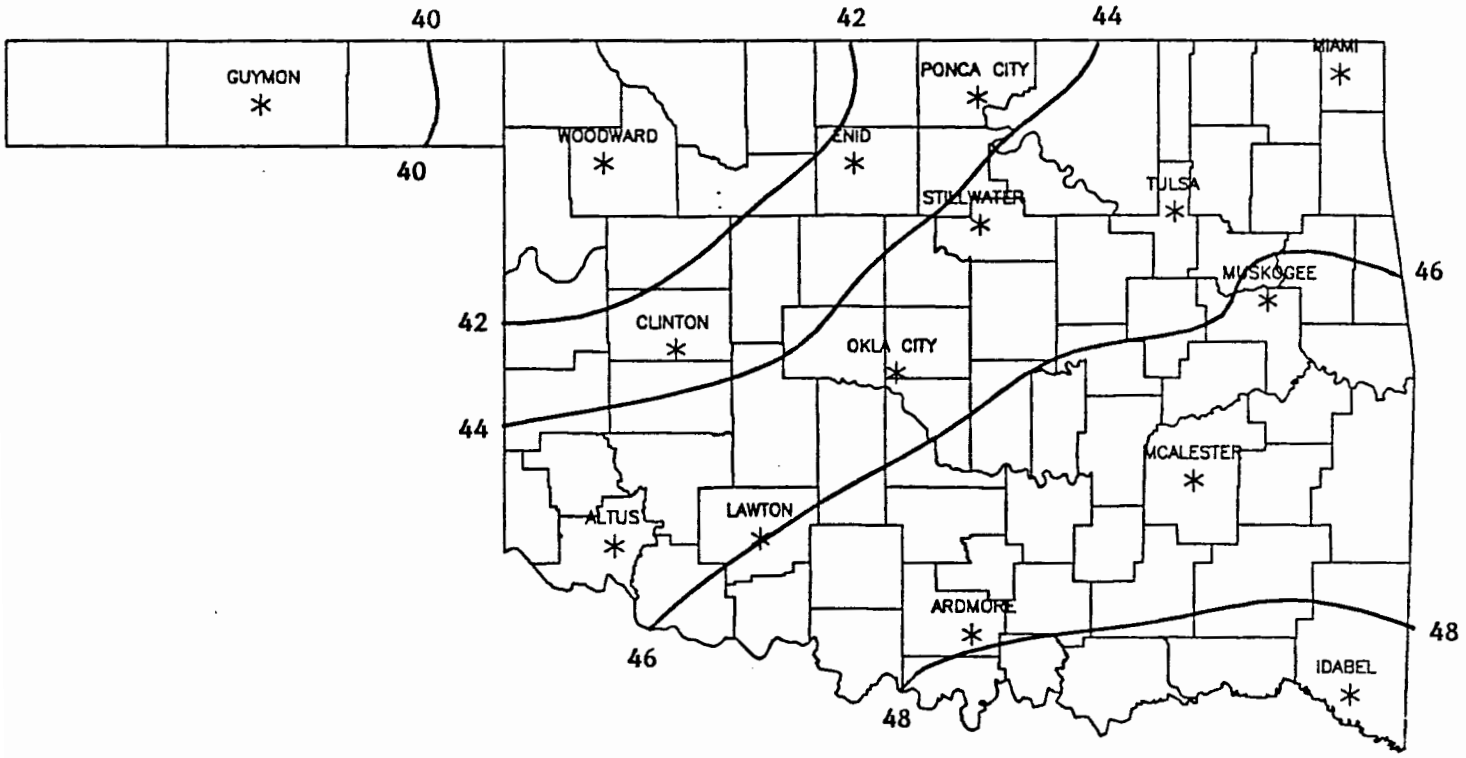
CLIMATE DIV	MEAN TEMP	NUM STA	DEV FROM NORM	MAX TEMP	DAY	MIN TEMP	DAY	HEAT DEGREE DAYS	DEV FROM NORM	COOL DEGREE DAYS	DEV FROM NORM	TOT PPT	NUM STA	DEV FROM NORM	MAX 24-HR	DAY
1	39.1	10	-5.9	77.0	15	-6.0	3	778.2	177.8	.0	.0	1.67	12	.80	1.40	16
2	42.0	15	-5.7	75.0	30	7.0	3	689.1	168.4	.0	.0	2.87	22	1.28	4.05	16
3	45.0	17	-3.5	76.0	18	10.0	3	600.7	104.1	.9	.9	3.63	28	1.14	2.22	18
4	43.2	10	-5.1	74.0	19	4.0	3	650.6	150.3	.0	.0	1.78	19	.45	1.60	17
5	45.5	15	-4.0	76.0	28	6.0	3	583.5	117.5	2.6	1.9	2.60	33	.62	2.06	16
6	46.7	12	-3.1	79.0	17	11.0	3	548.3	104.5	3.3	.9	4.85	29	1.88	4.11	16
7	45.8	11	-4.6	78.0	18	7.0	3	573.6	134.1	.4	-.6	1.19	24	-.13	1.35	16
8	48.0	14	-4.6	78.0	29	12.0	3	512.9	132.9	6.0	-.4	2.58	29	.20	2.62	16
9	47.7	10	-4.4	81.0	19	17.0	3	522.5	131.3	4.8	.5	4.66	21	.99	2.80	20



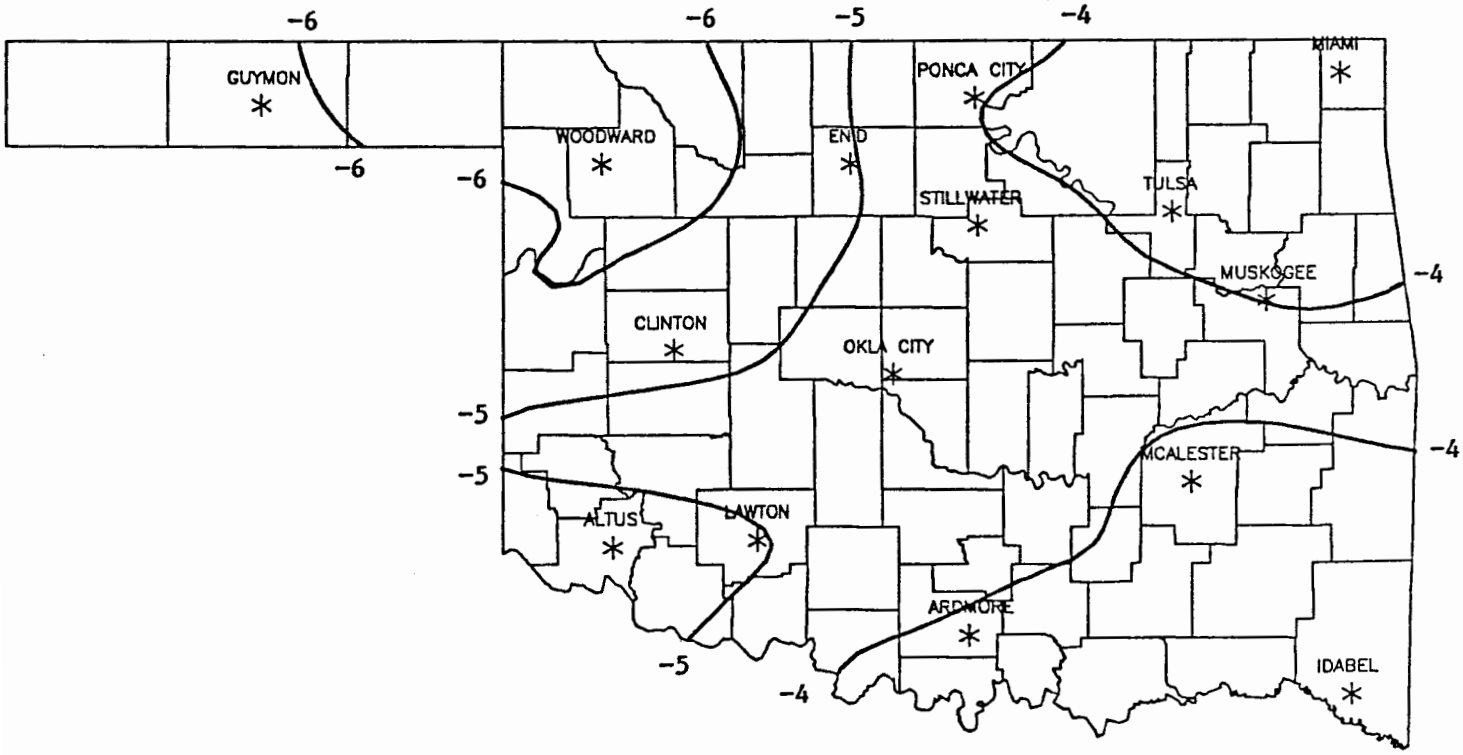
NOVEMBER 1991 TOTAL PRECIPITATION
(Inches)



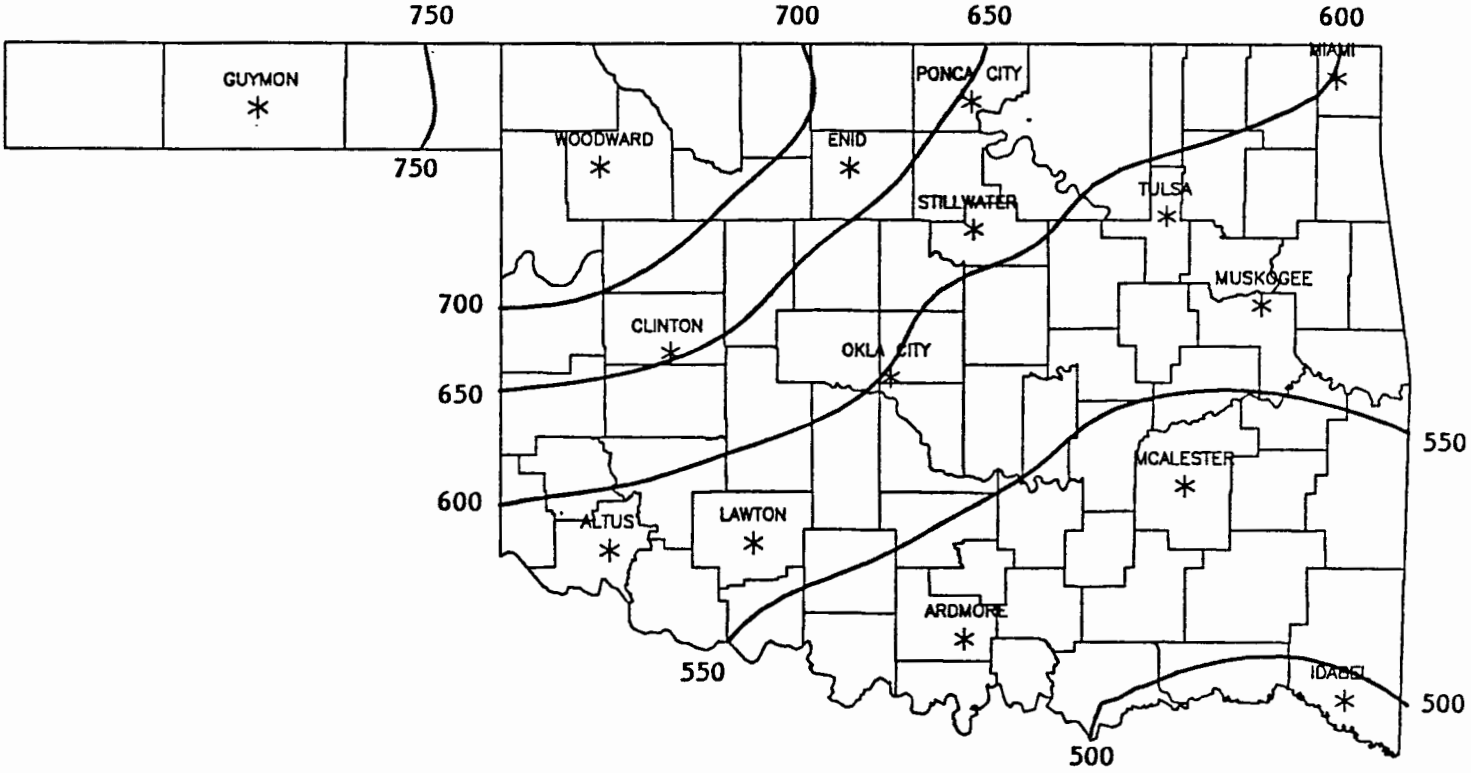
NOVEMBER 1991 DEVIATION FROM NORMAL PRECIPITATION
(Inches)



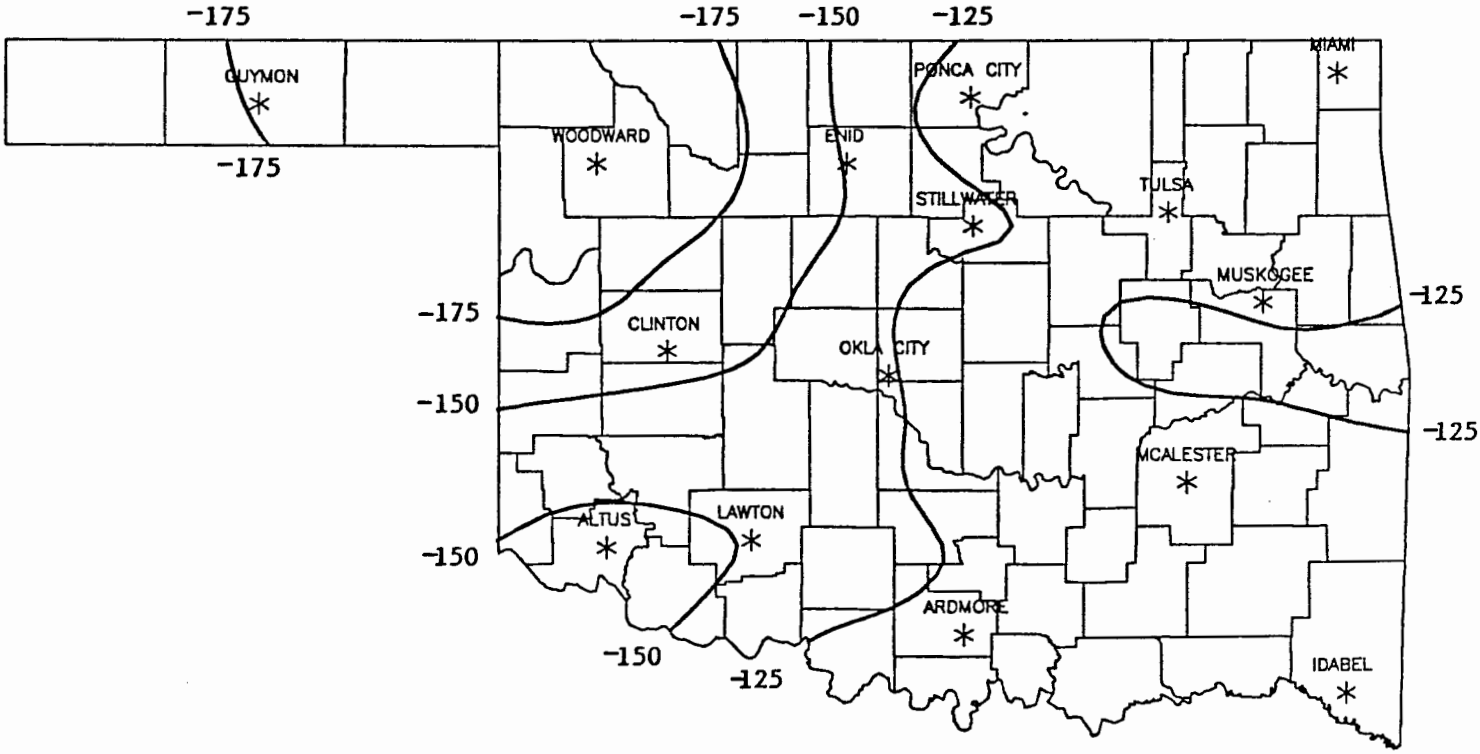
NOVEMBER 1991 AVERAGE MONTHLY TEMPERATURES
(Degrees F)



NOVEMBER 1991 DEVIATION FROM NORMAL TEMPERATURES
(Degrees F)

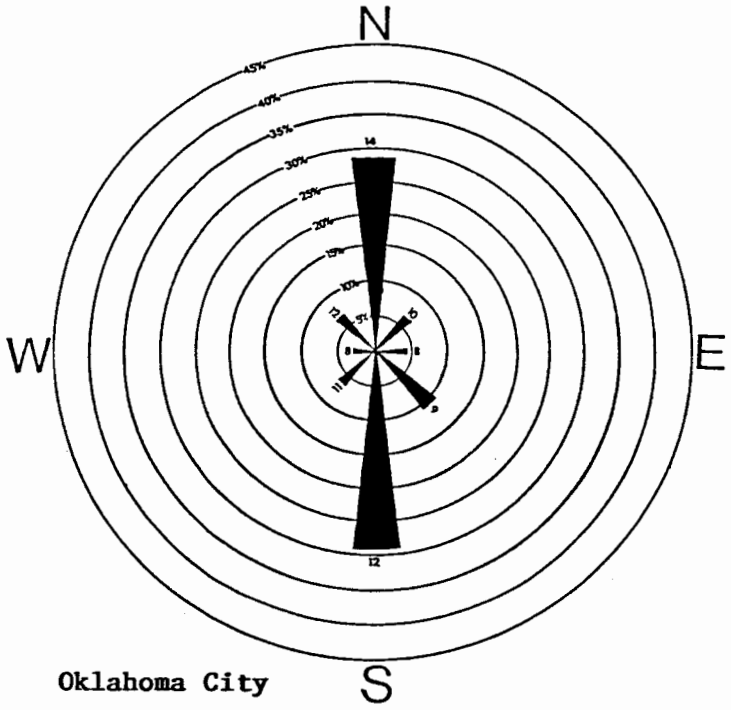


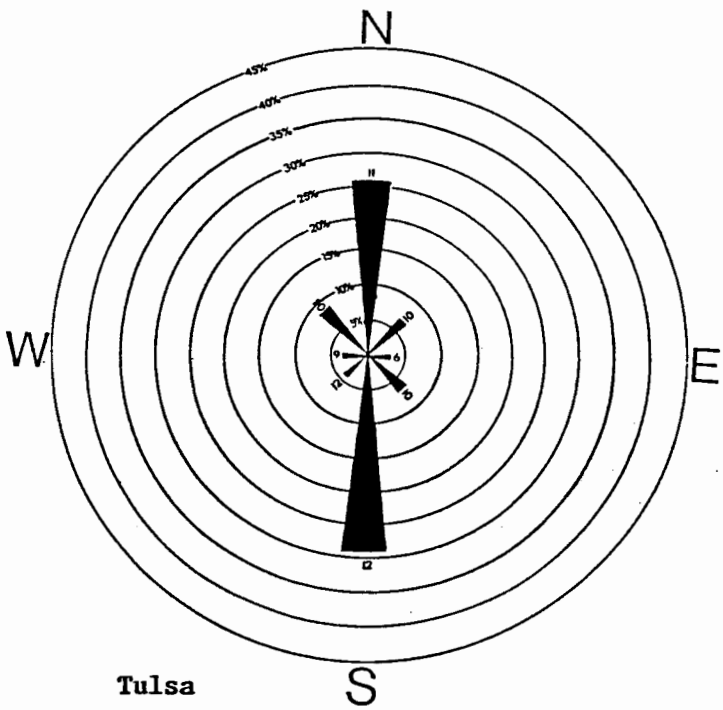
NOVEMBER 1991 HEATING DEGREE DAYS



NOVEMBER 1991 DEVIATION FROM NORMAL HEATING DEGREE DAYS

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





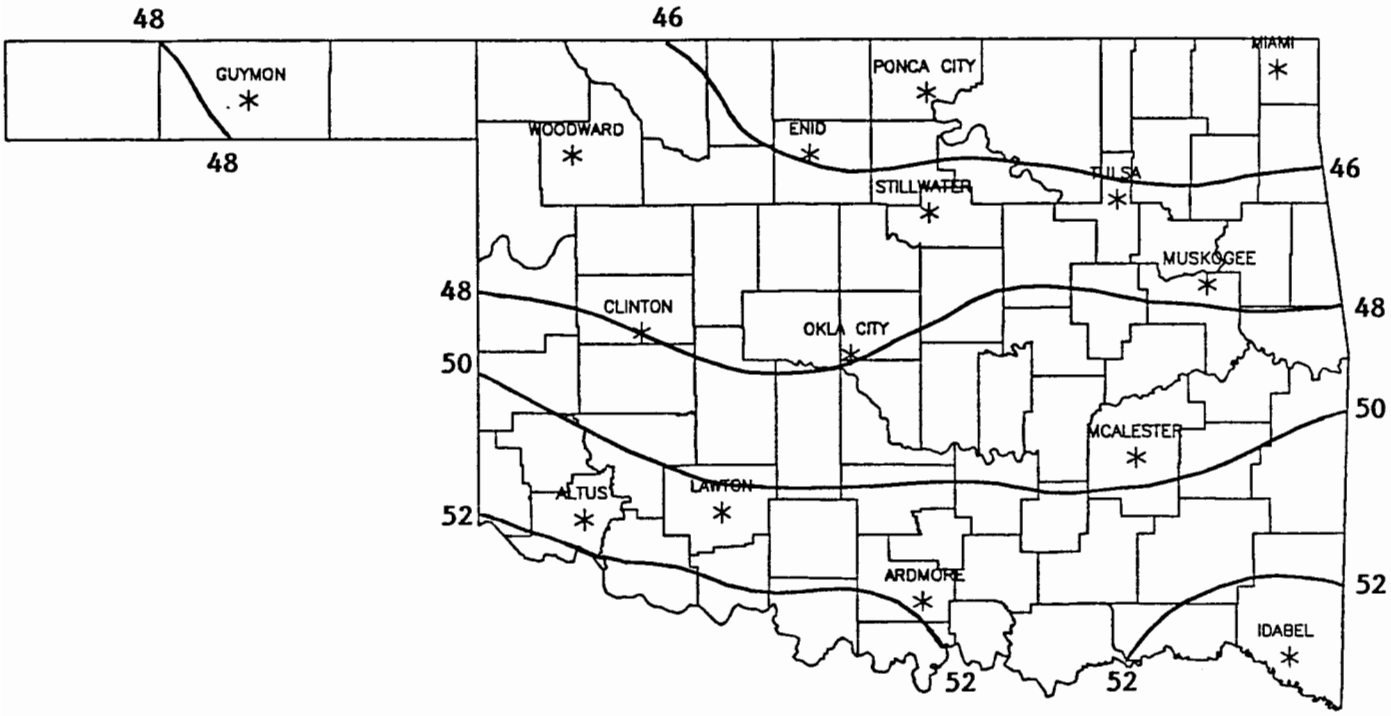
JANUARY 1992 SUNRISE AND SUNSET

Oklahoma City

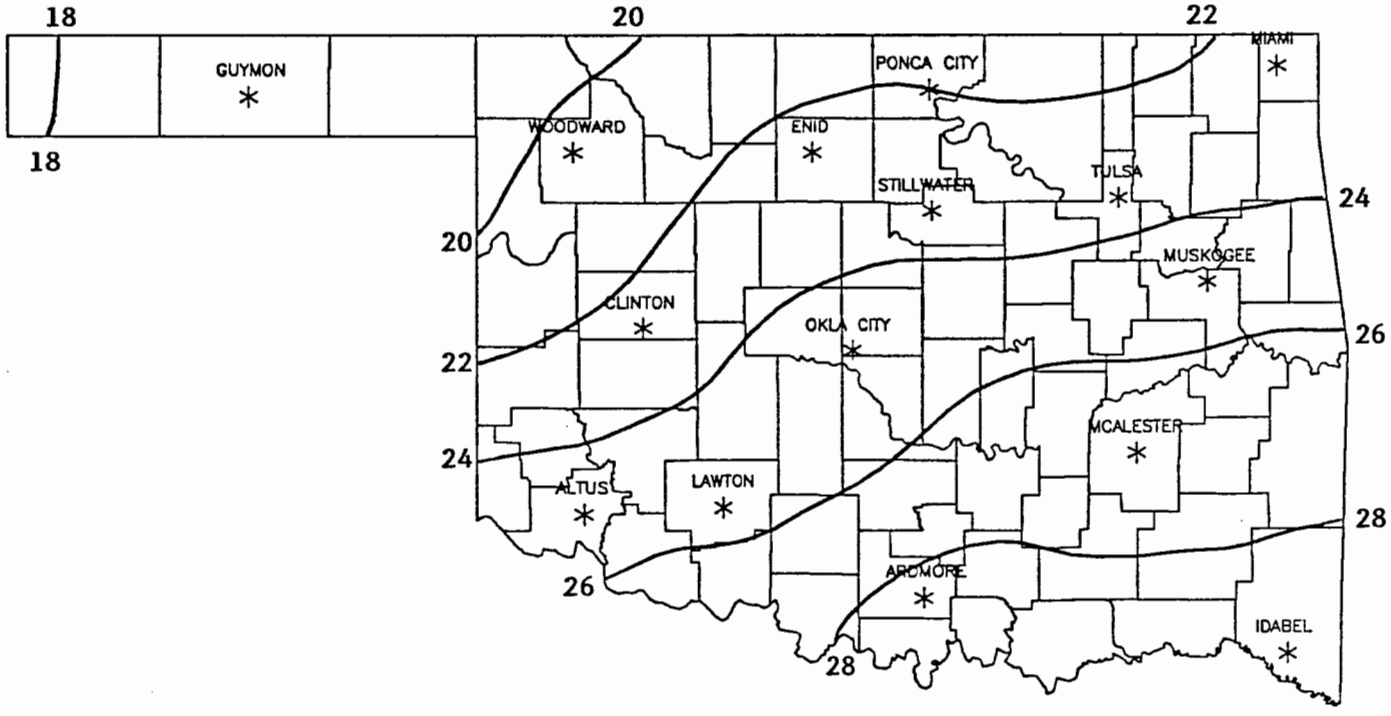
DATE	SUNRISE	SUNSET	DAYLIGHT
920101	7:38AM	5:30PM LT	9:53
920102	7:38AM	5:31PM LT	9:53
920103	7:38AM	5:31PM LT	9:54
920104	7:38AM	5:32PM LT	9:54
920105	7:38AM	5:33PM LT	9:55
920106	7:38AM	5:34PM LT	9:56
920107	7:38AM	5:35PM LT	9:56
920108	7:38AM	5:35PM LT	9:57
920109	7:38AM	5:36PM LT	9:58
920110	7:38AM	5:37PM LT	9:59
920111	7:38AM	5:38PM LT	9:60
920112	7:38AM	5:39PM LT	10: 1
920113	7:38AM	5:40PM LT	10: 2
920114	7:38AM	5:40PM LT	10: 3
920115	7:38AM	5:41PM LT	10: 4
920116	7:37AM	5:42PM LT	10: 5
920117	7:37AM	5:43PM LT	10: 6
920118	7:37AM	5:44PM LT	10: 7
920119	7:37AM	5:45PM LT	10: 8
920120	7:36AM	5:46PM LT	10:10
920121	7:36AM	5:47PM LT	10:11
920122	7:35AM	5:48PM LT	10:12
920123	7:35AM	5:49PM LT	10:14
920124	7:35AM	5:50PM LT	10:15
920125	7:34AM	5:51PM LT	10:17
920126	7:34AM	5:52PM LT	10:18
920127	7:33AM	5:53PM LT	10:20
920128	7:32AM	5:54PM LT	10:21
920129	7:32AM	5:55PM LT	10:23
920130	7:31AM	5:56PM LT	10:24
920131	7:31AM	5:57PM LT	10:26

Tulsa

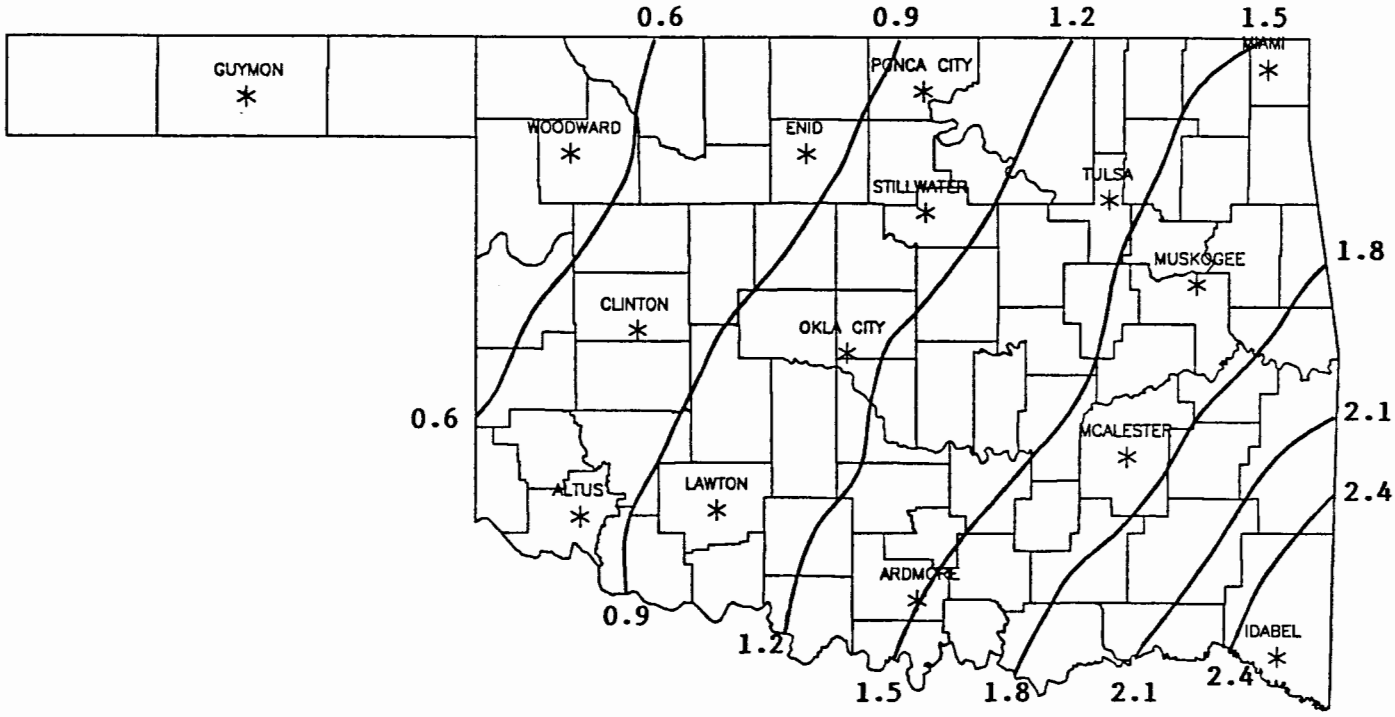
DATE	SUNRISE	SUNSET	DAYLIGHT
920101	7:33AM	5:21PM LT	9:49
920102	7:33AM	5:22PM LT	9:49
920103	7:33AM	5:23PM LT	9:50
920104	7:33AM	5:23PM LT	9:50
920105	7:33AM	5:24PM LT	9:51
920106	7:33AM	5:25PM LT	9:52
920107	7:33AM	5:26PM LT	9:52
920108	7:33AM	5:27PM LT	9:53
920109	7:33AM	5:27PM LT	9:54
920110	7:33AM	5:28PM LT	9:55
920111	7:33AM	5:29PM LT	9:56
920112	7:33AM	5:30PM LT	9:57
920113	7:33AM	5:31PM LT	9:58
920114	7:33AM	5:32PM LT	9:59
920115	7:33AM	5:33PM LT	10: 0
920116	7:32AM	5:34PM LT	10: 1
920117	7:32AM	5:35PM LT	10: 2
920118	7:32AM	5:35PM LT	10: 4
920119	7:31AM	5:36PM LT	10: 5
920120	7:31AM	5:37PM LT	10: 6
920121	7:31AM	5:38PM LT	10: 8
920122	7:30AM	5:39PM LT	10: 9
920123	7:30AM	5:40PM LT	10:10
920124	7:29AM	5:41PM LT	10:12
920125	7:29AM	5:42PM LT	10:13
920126	7:28AM	5:43PM LT	10:15
920127	7:28AM	5:44PM LT	10:17
920128	7:27AM	5:45PM LT	10:18
920129	7:27AM	5:46PM LT	10:20
920130	7:26AM	5:47PM LT	10:21
920131	7:25AM	5:48PM LT	10:23



30-YEAR MEAN JANUARY DAILY MAXIMUM TEMPERATURE



30-YEAR MEAN JANUARY DAILY MINIMUM TEMPERATURE



30-YEAR MEAN JANUARY PRECIPITATION

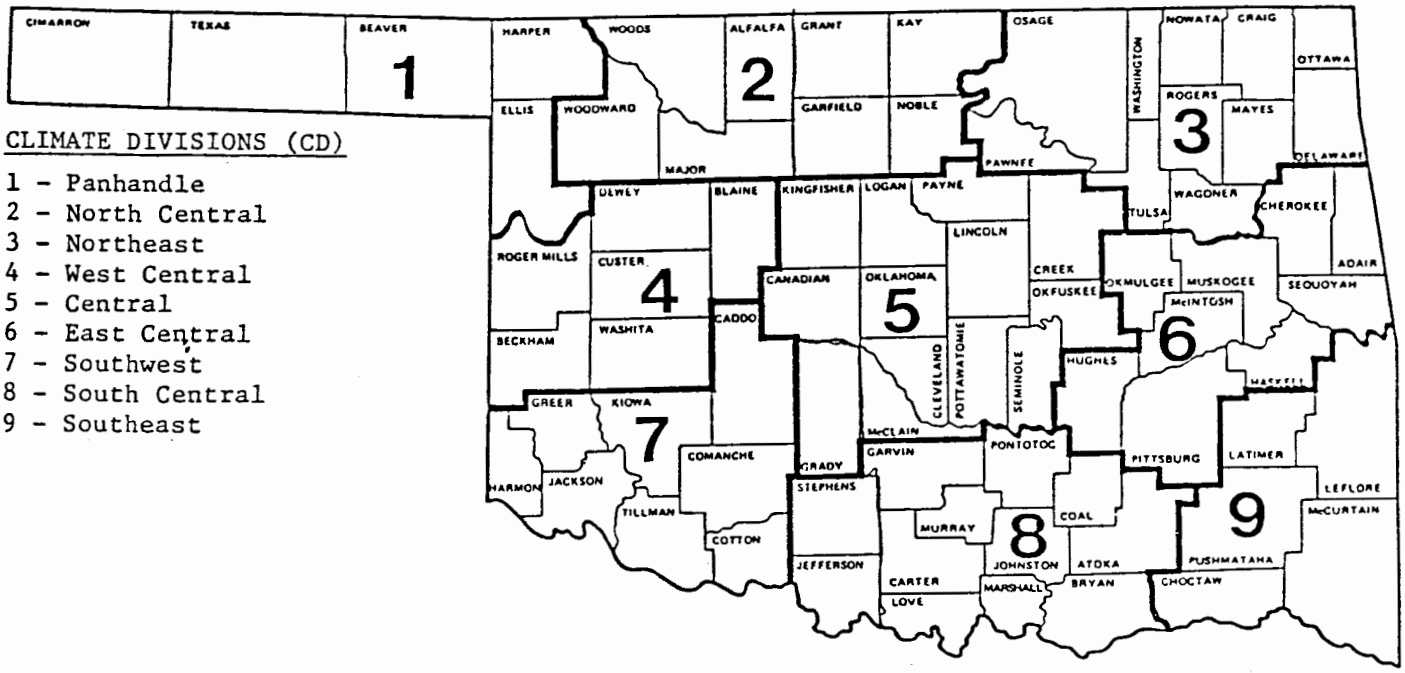
90-DAY NATIONAL WEATHER SERVICE OUTLOOK

(December 1991 - February 1992)

Precipitation - Above Normal Statewide

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:

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

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

January 1992

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

Normal 1	Actual	Normal 2	Actual	Normal 3	Actual	Normal 4	Actual	Normal 5	Actual	Normal 6	Actual	Normal 7	Actual
46.0 max		47.0 max		45.0 max		43.0 max		46.0 max		47.0 max		44.0 max	
26.0 min		27.0 min		24.0 min		25.0 min		26.0 min		25.0 min		24.0 min	
.020 ppt		.080 ppt		.060 ppt		.020 ppt		.050 ppt		.030 ppt		.010 ppt	
29 hdd		28 hdd		30 hdd		31 hdd		29 hdd		29 hdd		31 hdd	
0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd	
Highest Max	72-1943	Highest Max	70-1964	Highest Max	71-1939	Highest Max	72-1927	Highest Max	71-1927	Highest Max	67-1927	Highest Max	73-1965
Lowest Max	13-1979	Lowest Max	21-1926	Lowest Max	11-1947	Lowest Max	11-1959	Lowest Max	22-1940	Lowest Max	20-1979	Lowest Max	16-1937
Lowest Min	2-1928	Lowest Min	3-1979	Lowest Min	1-1959	Lowest Min	-7-1947	Lowest Min	-2-1959	Lowest Min	6-1968	Lowest Min	2-1968
Highest Min	51-1966	Highest Min	56-1950	Highest Min	50-1955	Highest Min	60-1955	Highest Min	47-1989	Highest Min	47-1965	Highest Min	54-1965
Greatest Ppt	.50-1966	Greatest Ppt	1.01-1951	Greatest Ppt	.83-1973	Greatest Ppt	1.81-1932	Greatest Ppt	1.00-1962	Greatest Ppt	1.02-1934	Greatest Ppt	.93-1943

Normal 8	Actual	Normal 9	Actual	Normal 10	Actual	Normal 11	Actual	Normal 12	Actual	Normal 13	Actual	Normal 14	Actual
47.0 max		44.0 max		42.0 max		43.0 max		46.0 max		47.0 max		48.0 max	
23.0 min		23.0 min		22.0 min		22.0 min		25.0 min		25.0 min		26.0 min	
.030 ppt		.020 ppt		.020 ppt		.020 ppt		.030 ppt		.010 ppt		.020 ppt	
30 hdd		31 hdd		33 hdd		32 hdd		29 hdd		29 hdd		28 hdd	
0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd	
Highest Max	70-1954	Highest Max	68-1935	Highest Max	75-1990	Highest Max	73-1928	Highest Max	73-1935	Highest Max	78-1928	Highest Max	75-1928
Lowest Max	11-1937	Lowest Max	9-1977	Lowest Max	13-1962	Lowest Max	16-1963	Lowest Max	11-1963	Lowest Max	26-1927	Lowest Max	17-1979
Lowest Min	-4-1988	Lowest Min	-2-1977	Lowest Min	-3-1977	Lowest Min	-1-1952	Lowest Min	-3-1963	Lowest Min	-1-1963	Lowest Min	1-1979
Highest Min	49-1939	Highest Min	45-1966	Highest Min	47-1928	Highest Min	45-1928	Highest Min	61-1960	Highest Min	49-1952	Highest Min	50-1928
Greatest Ppt	1.45-1935	Greatest Ppt	.43-1930	Greatest Ppt	.59-1949	Greatest Ppt	.39-1949	Greatest Ppt	.78-1927	Greatest Ppt	.27-1989	Greatest Ppt	.37-1946

Normal 15	Actual	Normal 16	Actual	Normal 17	Actual	Normal 18	Actual	Normal 19	Actual	Normal 20	Actual	Normal 21	Actual
49.0 max		46.0 max		47.0 max		46.0 max		44.0 max		46.0 max		45.0 max	
25.0 min		25.0 min		26.0 min		25.0 min		25.0 min		25.0 min		26.0 min	
.030 ppt		.030 ppt		.040 ppt		.100 ppt		.070 ppt		.020 ppt		.080 ppt	
28 hdd		29 hdd		29 hdd		29 hdd		31 hdd		29 hdd		29 hdd	
0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd	
Highest Max	73-1952	Highest Max	75-1935	Highest Max	68-1951	Highest Max	72-1951	Highest Max	73-1951	Highest Max	65-1964	Highest Max	71-1933
Lowest Max	14-1930	Lowest Max	11-1930	Lowest Max	8-1930	Lowest Max	12-1943	Lowest Max	12-1962	Lowest Max	19-1978	Lowest Max	13-1964
Lowest Min	1-1972	Lowest Min	0-1930	Lowest Min	-9-1930	Lowest Min	-9-1930	Lowest Min	-3-1984	Lowest Min	1-1985	Lowest Min	-2-1935
Highest Min	53-1969	Highest Min	57-1990	Highest Min	51-1973	Highest Min	47-1935	Highest Min	48-1954	Highest Min	46-1973	Highest Min	53-1933
Greatest Ppt	1.07-1932	Greatest Ppt	.70-1990	Greatest Ppt	1.61-1926	Greatest Ppt	1.07-1968	Greatest Ppt	1.28-1980	Greatest Ppt	.28-1980	Greatest Ppt	1.40-1932

Normal 22	Actual	Normal 23	Actual	Normal 24	Actual	Normal 25	Actual	Normal 26	Actual	Normal 27	Actual	Normal 28	Actual
47.0 max		46.0 max		50.0 max		49.0 max		46.0 max		45.0 max		47.0 max	
25.0 min		24.0 min		27.0 min		28.0 min		26.0 min		25.0 min		26.0 min	
.030 ppt		.030 ppt		.020 ppt		.080 ppt		.030 ppt		.030 ppt		.010 ppt	
29 hdd		30 hdd		27 hdd		26 hdd		29 hdd		30 hdd		28 hdd	
0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd	
Highest Max	79-1967	Highest Max	73-1942	Highest Max	80-1950	Highest Max	76-1952	Highest Max	72-1953	Highest Max	71-1969	Highest Max	69-1986
Lowest Max	16-1962	Lowest Max	13-1963	Lowest Max	13-1940	Lowest Max	16-1949	Lowest Max	20-1957	Lowest Max	17-1961	Lowest Max	21-1948
Lowest Min	-8-1930	Lowest Min	-1-1963	Lowest Min	-1-1963	Lowest Min	5-1940	Lowest Min	8-1963	Lowest Min	3-1963	Lowest Min	5-1948
Highest Min	49-1967	Highest Min	51-1967	Highest Min	44-1967	Highest Min	58-1944	Highest Min	53-1944	Highest Min	43-1968	Highest Min	60-1978
Greatest Ppt	.34-1927	Greatest Ppt	.89-1949	Greatest Ppt	.37-1949	Greatest Ppt	.61-1967	Greatest Ppt	.64-1983	Greatest Ppt	.62-1985	Greatest Ppt	.44-1989

Normal 29	Actual	Normal 30	Actual	Normal 31	Actual
48.0 max		46.0 max		47.0 max	
26.0 min		26.0 min		27.0 min	
.070 ppt		.080 ppt		.060 ppt	
28 hdd		29 hdd		27 hdd	
0 cdd		0 cdd		0 cdd	
Highest Max	72-1971	Highest Max	73-1931	Highest Max	73-1989
Lowest Max	13-1966	Lowest Max	17-1949	Lowest Max	11-1985
Lowest Min	3-1951	Lowest Min	2-1966	Lowest Min	-1-1979
Highest Min	50-1988	Highest Min	55-1988	Highest Min	47-1986
Greatest Ppt	.89-1938	Greatest Ppt	1.02-1975	Greatest Ppt	.47-1941

JANUARY AVERAGES

Temperature	:	**35.6°F**
Precipitation	:	**1.23"**
Heating Degree Days	:	**906**
Cooling Degree Days	:	**0**

TULSA CLIMATE CALENDAR

January 1992

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

Normal 1	Actual	Normal 2	Actual	Normal 3	Actual	Normal 4	Actual	Normal 5	Actual	Normal 6	Actual	Normal 7	Actual
46.0 max		47.0 max		46.0 max		44.0 max		46.0 max		46.0 max		44.0 max	
26.0 min		27.0 min		24.0 min		25.0 min		25.0 min		25.0 min		24.0 min	
.030 ppt		.060 ppt		.110 ppt		.030 ppt		.020 ppt		.010 ppt		.010 ppt	
28 hdd		28 hdd		30 hdd		30 hdd		29 hdd		29 hdd		31 hdd	
0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd	
Highest Max	73-1910	Highest Max	72-1950	Highest Max	71-1955	Highest Max	70-1956	Highest Max	73-1984	Highest Max	69-1907	Highest Max	77-1965
Lowest Max	13-1974	Lowest Max	25-1979	Lowest Max	14-1959	Lowest Max	12-1959	Lowest Max	19-1987	Lowest Max	20-1979	Lowest Max	15-1968
Lowest Min	0-1928	Lowest Min	2-1911	Lowest Min	-2-1919	Lowest Min	-8-1947	Lowest Min	-7-1947	Lowest Min	0-1912	Lowest Min	-5-1912
Highest Min	53-1966	Highest Min	55-1950	Highest Min	52-1955	Highest Min	63-1955	Highest Min	46-1989	Highest Min	47-1965	Highest Min	49-1965
Greatest Ppt	.50-1965	Greatest Ppt	.90-1951	Greatest Ppt	1.12-1971	Greatest Ppt	.82-1963	Greatest Ppt	.50-1962	Greatest Ppt	.61-1988	Greatest Ppt	.17-1973

Normal 8	Actual	Normal 9	Actual	Normal 10	Actual	Normal 11	Actual	Normal 12	Actual	Normal 13	Actual	Normal 14	Actual
47.0 max		44.0 max		42.0 max		44.0 max		45.0 max		47.0 max		48.0 max	
24.0 min		24.0 min		22.0 min		22.0 min		25.0 min		25.0 min		27.0 min	
.030 ppt		.060 ppt		.020 ppt		.010 ppt		.020 ppt		.020 ppt		.050 ppt	
29 hdd		31 hdd		33 hdd		32 hdd		30 hdd		29 hdd		27 hdd	
0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd	
Highest Max	71-1923	Highest Max	69-1909	Highest Max	76-1990	Highest Max	80-1911	Highest Max	73-1960	Highest Max	75-1907	Highest Max	75-1952
Lowest Max	17-1970	Lowest Max	10-1977	Lowest Max	13-1962	Lowest Max	21-1973	Lowest Max	11-1963	Lowest Max	23-1982	Lowest Max	13-1979
Lowest Min	-5-1988	Lowest Min	0-1977	Lowest Min	-5-1977	Lowest Min	-6-1977	Lowest Min	-13-1918	Lowest Min	-12-1916	Lowest Min	-4-1916
Highest Min	46-1954	Highest Min	45-1990	Highest Min	45-1960	Highest Min	43-1960	Highest Min	57-1960	Highest Min	51-1959	Highest Min	51-1953
Greatest Ppt	.78-1987	Greatest Ppt	.57-1977	Greatest Ppt	.30-1949	Greatest Ppt	.17-1949	Greatest Ppt	.42-1960	Greatest Ppt	.41-1951	Greatest Ppt	.64-1961

Normal 15	Actual	Normal 16	Actual	Normal 17	Actual	Normal 18	Actual	Normal 19	Actual	Normal 20	Actual	Normal 21	Actual
48.0 max		44.0 max		44.0 max		44.0 max		43.0 max		44.0 max		45.0 max	
25.0 min		24.0 min		25.0 min		25.0 min		25.0 min		25.0 min		26.0 min	
.030 ppt		.030 ppt		.040 ppt		.100 ppt		.080 ppt		.040 ppt		.070 ppt	
28 hdd		31 hdd		30 hdd		30 hdd		31 hdd		30 hdd		29 hdd	
0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd	
Highest Max	69-1990	Highest Max	78-1938	Highest Max	73-1952	Highest Max	72-1951	Highest Max	75-1951	Highest Max	77-1986	Highest Max	75-1957
Lowest Max	18-1972	Lowest Max	16-1977	Lowest Max	11-1978	Lowest Max	13-1970	Lowest Max	14-1970	Lowest Max	15-1984	Lowest Max	16-1970
Lowest Min	0-1905	Lowest Min	1-1930	Lowest Min	-3-1930	Lowest Min	-14-1930	Lowest Min	-5-1943	Lowest Min	-3-1985	Lowest Min	-1-1918
Highest Min	63-1980	Highest Min	58-1990	Highest Min	55-1973	Highest Min	48-1972	Highest Min	48-1954	Highest Min	45-1973	Highest Min	67-1957
Greatest Ppt	.76-1949	Greatest Ppt	.66-1990	Greatest Ppt	.45-1984	Greatest Ppt	.88-1968	Greatest Ppt	1.85-1990	Greatest Ppt	.61-1958	Greatest Ppt	.55-1973

Normal 22	Actual	Normal 23	Actual	Normal 24	Actual	Normal 25	Actual	Normal 26	Actual	Normal 27	Actual	Normal 28	Actual
46.0 max		45.0 max		50.0 max		50.0 max		46.0 max		43.0 max		47.0 max	
26.0 min		25.0 min		26.0 min		28.0 min		26.0 min		25.0 min		24.0 min	
.070 ppt		.080 ppt		.020 ppt		.100 ppt		.060 ppt		.070 ppt		.010 ppt	
28 hdd		30 hdd		27 hdd		26 hdd		28 hdd		31 hdd		29 hdd	
0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd		0 cdd	
Highest Max	78-1909	Highest Max	78-1909	Highest Max	79-1950	Highest Max	74-1952	Highest Max	71-1911	Highest Max	74-1914	Highest Max	82-1909
Lowest Max	16-1962	Lowest Max	12-1963	Lowest Max	20-1948	Lowest Max	19-1949	Lowest Max	20-1957	Lowest Max	21-1948	Lowest Max	21-1972
Lowest Min	-16-1930	Lowest Min	-8-1930	Lowest Min	-4-1906	Lowest Min	2-1940	Lowest Min	7-1963	Lowest Min	1-1963	Lowest Min	3-1948
Highest Min	53-1965	Highest Min	54-1967	Highest Min	45-1950	Highest Min	49-1981	Highest Min	44-1952	Highest Min	52-1968	Highest Min	59-1968
Greatest Ppt	.53-1956	Greatest Ppt	1.42-1953	Greatest Ppt	.21-1949	Greatest Ppt	1.89-1989	Greatest Ppt	.62-1967	Greatest Ppt	.85-1968	Greatest Ppt	.69-1989

Normal 29	Actual	Normal 30	Actual	Normal 31	Actual
47.0 max		45.0 max		46.0 max	
25.0 min		25.0 min		25.0 min	
.080 ppt		.100 ppt		.110 ppt	
29 hdd		30 hdd		29 hdd	
0 cdd		0 cdd		0 cdd	
Highest Max	76-1947	Highest Max	74-1931	Highest Max	76-1989
Lowest Max	14-1966	Lowest Max	15-1949	Lowest Max	12-1985
Lowest Min	-2-1949	Lowest Min	-6-1949	Lowest Min	-5-1979
Highest Min	50-1982	Highest Min	58-1987	Highest Min	43-1973
Greatest Ppt	.99-1969	Greatest Ppt	1.73-1975	Greatest Ppt	2.13-1983

JANUARY AVERAGES

Temperature	:	**35.3°F**
Precipitation	:	**1.57"**
Heating Degree Days	:	**912**
Cooling Degree Days	:	**0**