Climatography of the United States No. 20 1971-2000

National Climatic Data Center Federal Building 151 Patton Avenue Asheville, North Carolina 28801 www.ncdc.noaa.gov

COOP ID: 412797

Station: EL PASO INTL AP, TX

Climate Division: TX 5 NWS Call Sign: ELP Elevation: 3,918 Feet Lat: 31°49N Lon: 106°23W

	Temperature (°F) Degree Days (1)																						
	Mea	n (1)						Extr	emes						Days (1) emp 65	Mean Number of Days (3)							
Month	Daily Max	Daily Min	Mean	Highest Daily(2)	Year	Day	Highest Month(1) Mean	Year	Lowest Daily(2)	Year	Day	Lowest Month(1) Mean	Year	Heating	Cooling	Max >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0		
Jan	57.2	32.9	45.1	80	1970	24	49.7	2000	-8	1962	11	41.1	1985	632	0	.0	.0	26.3	.3	17.8	.0		
Feb	63.4	37.5	50.5	83+	1986	26	56.3	1995	8+	1985	2	45.5	1974	424	2	.0	.0	26.7	.2	10.7	.0		
Mar	70.2	43.7	57.0	89+	1989	12	62.1	1972	14	1971	3	50.6	1977	272	8	.0	.0	30.7	.0	4.4	.0		
Apr	78.1	51.1	64.6	98+	1989	21	69.1	1989	23	1983	8	58.0	1983	100	72	.0	2.3	29.8	.0	.9	.0		
May	86.7	60.6	73.7	104	1951	28	80.1	1996	31	1967	2	70.0	1973	8	262	.6	13.2	31.0	.0	.0	.0		
Jun	95.3	68.8	82.1	114	1994	30	89.0	1994	46	1988	1	77.8	1973	0	497	9.4	25.9	30.0	.0	.0	.0		
Jul	94.5	72.0	83.3	112	1979	10	88.2	1980	57+	1988	22	79.2	1976	0	552	7.1	26.8	31.0	.0	.0	.0		
Aug	92.0	70.2	81.1	108	1980	2	86.2	1994	56+	1973	26	78.0+	1974	0	483	2.1	24.0	31.0	.0	.0	.0		
Sep	87.1	63.7	75.4	104	1982	1	79.9	1983	42+	1975	23	70.5	1974	9	305	.5	14.3	30.0	.0	.0	.0		
Oct	77.9	51.8	64.9	96+	1994	5	68.1	1987	25+	1970	30	59.6	1976	89	71	.0	2.4	30.8	.0	.5	.0		
Nov	65.5	39.8	52.7	87	1983	2	56.7	1978	1	1976	29	45.6	1976	386	2	.0	.0	28.7	.1	8.1	.0		
Dec	57.4	33.4	45.4	80	1973	2	50.2	1977	5	1953	24	40.6	1997	623	0	.0	.0	26.2	.2	17.6	.0		
Ann	77.1	52.1	64.7	114	Jun 1994	30	89.0	Jun 1994	-8	Jan 1962	11	40.6	Dec 1997	2543	2254	19.7	108.9	352.2	.8	60.0	.0		

⁺ Also occurred on an earlier date(s)

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Issue Date: February 2004 096-A

[@] Denotes mean number of days greater than 0 but less than .05

⁽¹⁾ From the 1971-2000 Monthly Normals

⁽²⁾ Derived from station's available digital record: 1948-2001

⁽³⁾ Derived from 1971-2000 serially complete daily data

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										Pı	nes)															
		ans/	P	recipi	itatio	on Total					ean N of D	ays (3)	Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount Monthly/Annual Precipitation vs Probability Levels These values were determined from the incomplete gamma distribution												
Month	Mean	Med- ian	Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year	>= 0.01	>= 0.10	>= 0.50	>= 1.00	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95		
Jan	.45	.33	.54	1960	11	1.34	1993	.00	2000	4.7	1.8	@	.0	.01	.05	.11	.17	.24	.33	.43	.55	.73	1.03	1.32		
Feb	.39	.31	.81	1956	2	1.69	1973	.00+	1999	3.1	1.3	.1	.0	.00	.00	.05	.13	.21	.29	.38	.50	.65	.89	1.14		
Mar	.26	.22	.82	1952	1	.64	1997	.00+	1996	2.2	.8	.0	.0	.00	.00	.00	.07	.13	.19	.25	.34	.45	.63	.81		
Apr	.23	.12	.98	1966	24	1.42	1983	.00+	1999	1.7	.8	.1	.0	.00	.00	.00	.02	.06	.12	.19	.28	.41	.62	.83		
May	.38	.13	1.26	1992	17	4.22	1992	.00+	2000	2.8	1.1	.1	.1	.00	.00	.00	.03	.07	.15	.25	.40	.64	1.08	1.55		
Jun	.87	.43	1.17	1966	27	3.18	1984	.00+	1990	3.5	2.0	.6	.1	.00	.00	.02	.10	.22	.39	.63	.96	1.47	2.40	3.38		
Jul	1.49	1.17	1.75	1960	8	3.96	1990	.04	1978	8.2	3.6	.9	.3	.17	.28	.49	.70	.92	1.17	1.46	1.82	2.31	3.11	3.90		
Aug	1.75	1.53	2.00	1957	31	5.57	1984	.02	1994	8.8	3.8	1.1	.3	.18	.31	.55	.79	1.06	1.35	1.70	2.13	2.73	3.71	4.67		
Sep	1.61	1.40	2.26	1974	22	6.68	1974	.00	2000	6.5	3.1	1.0	.4	.02	.09	.27	.49	.74	1.05	1.43	1.93	2.63	3.86	5.09		
Oct	.81	.55	1.29	1949	22	3.12	1984	.00+	1996	4.9	2.3	.3	@	.00	.00	.10	.24	.39	.56	.76	1.01	1.36	1.93	2.51		
Nov	.42	.32	.85	1986	3	1.42	1986	.00+	1999	3.1	1.4	.1	.0	.00	.00	.10	.17	.24	.32	.41	.53	.68	.94	1.19		
Dec	.77	.43	1.46	1987	13	3.29	1991	.00+	1996	4.3	2.2	.3	.1	.00	.03	.12	.23	.36	.51	.70	.93	1.27	1.85	2.44		
Ann	9.43	8.70	2.26	Sep 1974	22	6.68	Sep 1974	.00+	Sep 2000	53.8	24.2	4.6	1.3	5.35	6.07	7.04	7.79	8.48	9.15	9.87	10.67	11.66	13.13	14.43		

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

[#] Denotes amounts of a trace

[@] Denotes mean number of days greater than 0 but less than .05

^{**} Statistics not computed because less than six years out of thirty had measurable precipitation

⁽¹⁾ From the 1971-2000 Monthly Normals

⁽²⁾ Derived from station's available digital record: 1948-2001

⁽³⁾ Derived from 1971-2000 serially complete daily data

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Climate Division: TX 5 NWS Call Sign: ELP Elevation: 3,918 Feet Lat: 31°49N Lon: 106°23W

										Snov	w (incl	hes)														
						Sn	ow To	tals							Mean Number of Days (1)											
	Mean	s/Medi	ans (1)	1					Extre	mes (2)							ow Fa		Snow Depth >= Thresholds							
Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10			
Jan	1.5	.0	#	0	4.5	1973	2	6.9	1992	6	1983	1	1	1983	1.2	.5	.2	.0	.0	.9	.3	.1	.0			
Feb	.8	.0	#	0	5.3	1988	5	6.6	1988	4	1980	9	#	1988	.5	.3	.1	@	.0	.3	.1	.0	.0			
Mar	.3	.0	#	0	6.1	1984	5	6.1	1984	3	1984	6	#	1987	.1	.1	@	@	.0	.1	@	.0	.0			
Apr	.7	.0	#	0	6.5	1983	5	16.5	1983	9	1983	7	1	1983	.2	.2	.1	.1	.0	.1	.1	.1	.0			
May	.0	.0	#	0	.0	0	0	.0	0	0	0	0	#	1994	.0	.0	.0	.0	.0	.0	.0	.0	.0			
Jun	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
Jul	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
Aug	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
Sep	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
Oct	.1	.0	#	0	1.0	1980	28	1.0	1980	1	1993	30	#	1993	.1	.0	.0	.0	.0	@	.0	.0	.0			
Nov	.9	.0	#	0	4.1	1976	28	12.7	1976	6	1976	28	1	1976	.4	.3	.2	.0	.0	.3	.2	.1	.0			
Dec	1.8	.0	#	0	14.5	1987	13	25.9	1987	14	1987	15	2	1987	.7	.5	.2	.2	@	.8	.4	.2	.1			
Ann	6.1	.0	N/A	N/A	14.5	Dec 1987	13	25.9	Dec 1987	14	Dec 1987	15	2	Dec 1987	3.2	1.9	.8	.3	@	2.5	1.1	.5	.1			

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

[@] Denotes mean number of days greater than 0 but less than .05

^{-9/-9.9} represents missing values Annual statistics for Mean/Median snow depths are not appropriate

⁽¹⁾ Derived from Snow Climatology and 1971-2000 daily data

⁽²⁾ Derived from 1971-2000 daily data

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Station: EL PASO INTL AP, TX

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Climate Division: TX 5 NWS Call Sign: ELP

Freeze Data **Spring Freeze Dates (Month/Day)** Probability of later date in spring (thru Jul 31) than indicated(*) Temp (F) .10 .20 .30 .40 .60 .70 .80 .90 36 4/27 4/21 4/16 4/12 4/09 4/05 4/01 3/28 3/21 32 4/04 3/30 3/22 4/12 3/26 3/18 3/13 3/08 3/01 28 4/03 3/25 3/19 3/14 3/09 3/04 2/27 2/20 2/12 1/12 24 3/28 3/15 3/06 2/26 2/19 2/11 2/03 1/25 20 3/01 2/17 2/08 1/31 1/23 1/16 1/08 12/29 12/14 2/04 16 2/19 1/24 1/12 12/30 12/07 0/00 0/00 0/00 Fall Freeze Dates (Month/Day) Probability of earlier date in fall (beginning Aug 1) than indicated(*) Temp (F) .20 .30 .40 .50 .70 .10 .60 .80 .90 10/25 36 10/18 10/22 10/28 10/30 11/02 11/05 11/08 11/12 32 10/25 10/30 11/02 11/05 11/08 11/11 11/14 11/17 11/22 28 10/31 11/07 11/12 11/16 11/19 11/23 11/27 12/02 12/08 24 11/15 11/20 11/25 11/28 12/02 12/05 12/08 12/13 12/18 20 11/20 11/30 12/06 12/12 12/18 12/23 12/30 1/07 1/22 12/24 1/01 1/11 16 12/06 12/16 0/00 0/00 0/00 0/00 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 226 218 213 208 204 200 195 182 36 190 32 257 248 241 236 230 225 220 213 204 28 290 278 262 255 248 240 231 219 269 24 324 309 299 291 283 276 268 258 246 332 311 279 20 >365 >365 348 321 302 292

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0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability. Derived from 1971-2000 serially complete daily data

Complete do

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Complete documentation available from:

>365

Elevation: 3,918 Feet

327

308

348

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^{*} Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

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	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	632	424	272	100	8	0	0	0	9	89	386	623	2543		
60	463	273	141	41	2	0	0	0	0	25	239	453	1637		
57	370	199	88	20	0	0	0	0	0	10	170	362	1219		
55	309	155	59	12	0	0	0	0	0	5	131	303	974		
50	168	70	16	2	0	0	0	0	0	0	58	170	484		
32	0	0	0	0	0	0	0	0	0	0	0	0	0		

Base	Cooling Degree Days (1)														
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
32	395	499	747	948	1257	1470	1560	1497	1278	994	601	402	11648		
55	3	25	107	275	544	780	847	784	589	296	48	6	4304		
57	1	14	74	224	482	720	785	722	529	242	29	3	3825		
60	0	5	38	156	390	630	692	629	441	167	12	1	3161		
65	0	2	8	72	262	497	552	483	305	71	2	0	2254		
70	0	0	1	20	123	331	382	320	165	18	0	0	1360		

Growing Degree Units (2)																										
Base					Growin	g Degree	Units (M	(Ionthly)					Growing Degree Units (Accumulated Monthly)													
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec J													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
40	182	305	509	717	1016	1243	1321	1261	1045	755	377	192	182	487	996	1713	2729	3972	5293	6554	7599	8354	8731	8923		
45	82	180	359	568	861	1093	1166	1106	895	600	242	88	82	262	621	1189	2050	3143	4309	5415	6310	6910	7152	7240		
50	25	84	222	423	706	943	1011	951	745	450	132	28	25	109	331	754	1460	2403	3414	4365	5110	5560	5692	5720		
55	0	31	112	284	551	793	856	796	595	305	53	2	0	31	143	427	978	1771	2627	3423	4018	4323	4376	4378		
60	0	4	42	164	398	643	701	641	446	174	14	0	0	4	46	210	608	1251	1952	2593	3039	3213	3227	3227		
Base	Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)				
50/86	147	220	343	475	661	782	863	833	688	488	258	149	147	367	710	1185	1846	2628	3491	4324	5012	5500	5758	5907		

(1) Derived from the 1971-2000 Monthly Normals

(2) Derived from 1971-2000 serially complete daily data

Note: For corn, temperatures below 50 are set to 50, and temperatures above 86 are set to 86

Notes

- a. The monthly means are simple arithmetic averages computed by summing the monthly values for the period 1971-2000 and dividing by thirty. Prior to averaging, the data are adjusted if necessary to compensate for data quality issues, station moves or changes in station reporting practices. Missing months are replaced by estimates based on neighboring stations.
- b. The median is defined as the middle value in an ordered set of values. The median is being provided for the snow and precipitation elements because the mean can be a misleading value for precipitation normals.
 - c. Only observed validated values were used to select the extreme daily values.
 - d. Extreme monthly temperature/precipitation means were selected from the monthly normals data.

Monthly snow extremes were calculated from daily values quality controlled to be consistent with the Snow Climatology.

e. Degree Days were derived using the same techniques as the 1971-2000 normals.

Compete documentation for the 1971-2000 Normals is available on the internet from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

f. Mean "number of days statistics" for temperature and precipitation were calculated from a serially complete daily data set .

Documentation of the serially complete data set is available from the link below:

g. Snowfall and snow depth statistics were derived from the Snow Climatology.

Documentation for the Snow Climatology project is available from the link under references.

Data Sources for Tables

Several different data sources were used to create the Clim20 climate summaries. In some cases the daily extremes appear inconsistent with the monthly extremes and or the mean number of days statistics. For example, a high daily extreme value may not be reflected in the highest monthly value or the mean number of days threshold that is less than and equal to the extreme value. Some of these difference are caused by different periods of record. Daily extremes are derived from the station's entire period of record while the serial data and normals data were are for the 1971-2000 period. Therefore extremes observed before 1971 would not be included in the 1971-2000 normals or the 1971-2000 serial daily data set. Inconsistencies can also occur when monthly values are adjusted to reflect the current observing conditions or were replaced during the 1971-2000 Monthly Normals processing and are not reconciled with the Summary of the Day data.

- a. Temperature/ Precipitation Tables
 - 1. 1971-2000 Monthly Normals
 - 2. Cooperative Summary of the Day
 - 3. National Weather Service station records
 - 4. 1971-2000 serially complete daily data

- c. Snow Tables
 - 1. Snow Climatology
 - 2. Cooperative Summary of the Day
- d. Freeze Data Table

1971-2000 serially complete daily data

- b. Degree Day Table
 - 1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
 - 2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html

U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/usnormalsprods.html

Snow Climatology Project Description, www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html

Eischeid, J. K., P. Pasteris, H. F. Diaz, M. Plantico, and N. Lott, 2000: Creating a serially complete, national daily time series of temperature and precipitation for the Western United States. J. Appl. Meteorol., 39, 1580-1591,

www1.ncdc.noaa.gov/pub/data/special/ serialcomplete_jam_0900.pdf