U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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

Station: PORT ARTHUR AP BEAUMONT, TX **COOP ID: 417174**

Climate Division: TX 8 **NWS Call Sign: BPT** **Elevation: 16 Feet** **Lat: 29˚57N** **Lon: 94˚01W**

Temperature (˚F)

Mean (1)				Extremes										Degree Days (1) Base Temp 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	61.5	42.9	52.2	82	2000	13	58.1	1999	14	1962	12	43.3	1978	411	11	.0	.0	26.3	.1	4.9	.0
Feb	65.3	45.9	55.6	85	1986	26	62.2	2000	13	1951	2	46.8	1978	286	16	.0	.0	25.9	@	2.7	.0
Mar	72.0	52.4	62.2	87	1974	29	67.0	1985	23	1989	6	56.8	1996	143	55	.0	.0	30.8	.0	.6	.0
Apr	77.8	58.6	68.2	94	1987	28	72.4	1981	32	1987	3	63.4	1983	41	140	.0	.3	30.0	.0	@	.0
May	84.3	66.4	75.4	97	1977	31	78.6	1978	46	1954	4	71.9	1976	1	324	.0	2.5	31.0	.0	.0	.0
Jun	89.4	72.3	80.9	100	1954	30	83.7	1998	56	1984	1	78.5	1976	0	480	.0	16.6	30.0	.0	.0	.0
Jul	91.6	73.8	82.7	103+	1980	17	84.6	1980	61+	1990	14	79.2	1972	0	553	.1	24.5	31.0	.0	.0	.0
Aug	91.7	73.2	82.5	108	2000	31	86.0	1999	60	1989	9	79.2	1971	0	546	.4	23.8	31.0	.0	.0	.0
Sep	88.0	69.4	78.7	105	2000	4	82.3	1977	45	1967	29	74.8	1974	1	417	.2	13.0	30.0	.0	.0	.0
Oct	80.5	59.6	70.1	95+	1977	1	74.0	1984	30	1993	31	62.0	1976	34	195	.0	1.5	31.0	.0	.1	.0
Nov	70.9	50.8	60.9	88+	1989	8	66.7	1978	22	1976	30	52.6	1976	181	63	.0	.0	29.4	.0	.8	.0
Dec	63.9	44.5	54.2	84+	1978	7	63.1	1984	12	1989	23	45.8	1989	349	23	.0	.0	27.8	.1	3.8	.0
Ann	78.1	59.2	68.6	108	Aug 2000	31	86.0	Aug 1999	12	Dec 1989	23	43.3	Jan 1978	1447	2823	.7	82.2	354.2	.2	12.9	.0

\+ Also occurred on an earlier date(s)

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

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

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1947-2001

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

Issue Date: February 2004

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Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	5.69	5.17	4.30	1984	9	14.87	1991	.60	1971
Feb	3.35	3.32	9.41	1952	1	7.69	1990	.21	1989
Mar	3.75	3.62	4.23	1979	19	9.35	1979	.44	1978
Apr	3.84	3.47	10.09	1973	17	15.30	1973	.26	1987
May	5.83	5.23	9.89	1989	18	13.18	1991	.08	1998
Jun	6.58	5.98	8.74	1961	19	18.90	1989	.76	1980
Jul	5.23	4.59	8.65	1979	25	15.68	1979	1.56	1998
Aug	4.85	4.52	8.32	1966	11	14.35	1983	.00	1999
Sep	6.10	4.77	12.09	1963	17	21.96	1980	.66	1995
Oct	4.67	4.26	7.96	1970	11	14.94	1984	.00	1978
Nov	4.75	4.79	5.77	1961	13	10.84	1977	.51	1994
Dec	5.25	3.90	8.04	1982	26	17.98	1982	1.94	1993
Ann	59.89	61.30	12.09	Sep 1963	17	21.96	Sep 1980	.00+	Aug 1999

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	10.2	7.3	3.5	1.7
Feb	8.6	4.9	2.2	.9
Mar	8.0	5.0	2.4	1.3
Apr	6.7	4.1	2.1	1.2
May	7.2	5.3	3.2	2.0
Jun	9.2	6.7	3.9	2.3
Jul	11.2	7.3	3.6	1.5
Aug	11.4	6.7	3.0	1.4
Sep	9.8	7.2	3.2	1.5
Oct	6.5	4.5	2.5	1.6
Nov	8.4	6.1	3.1	1.6
Dec	9.2	6.0	3.1	1.6
Ann	106.4	71.1	35.8	18.6

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	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	1.40	1.94	2.77	3.50	4.23	5.00	5.86	6.88	8.22	10.33	12.31
Feb	.50	.78	1.27	1.73	2.21	2.74	3.35	4.09	5.09	6.72	8.28
Mar	.77	1.11	1.66	2.17	2.67	3.21	3.83	4.56	5.53	7.09	8.56
Apr	.37	.65	1.17	1.71	2.29	2.94	3.72	4.69	6.02	8.22	10.38
May	.47	.86	1.62	2.43	3.32	4.34	5.56	7.09	9.21	12.77	16.27
Jun	1.26	1.85	2.81	3.70	4.61	5.58	6.68	8.01	9.78	12.62	15.31
Jul	1.53	2.03	2.78	3.42	4.05	4.71	5.43	6.28	7.38	9.10	10.71
Aug	.71	1.34	2.17	2.85	3.52	4.23	5.03	5.97	7.21	9.17	11.01
Sep	.89	1.39	2.27	3.12	4.00	4.97	6.08	7.45	9.29	12.29	15.17
Oct	.33	.81	1.55	2.24	2.96	3.74	4.65	5.76	7.27	9.72	12.09
Nov	1.19	1.63	2.32	2.94	3.54	4.18	4.89	5.74	6.85	8.60	10.24
Dec	1.31	1.80	2.57	3.25	3.92	4.62	5.41	6.35	7.57	9.51	11.32
Ann	40.66	44.32	49.04	52.64	55.86	58.98	62.23	65.82	70.20	76.58	82.13

\+ Also occurred on an earlier date(s)
\# 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: 1947-2001
(3) Derived from 1971-2000 serially complete daily data

Complete documentation available from:
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Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	.2	.0	#	0
Feb	.1	.0	0	0
Mar	.0	.0	0	0
Apr	.0	.0	0	0
May	.0	.0	#	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.0	.0	0	0
Oct	.0	.0	0	0
Nov	#	.0	0	0
Dec	.0	.0	0	0
Ann	.3	.0	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	3.0	1973	11	3.0	1973	1	1973	12	#	1973
Feb	.7	1980	2	.7	1980	#+	1985	3	0	0
Mar	.0	0	0	.0	0	0	0	0	0	0
Apr	.0	0	0	.0	0	0	0	0	0	0
May	.0	0	0	.0	0	0	0	0	#	1995
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	.0	0	0	.0	0	0	0	0	0	0
Oct	.0	0	0	.0	0	0	0	0	0	0
Nov	#	1976	28	#	1976	0	0	0	0	0
Dec	.7	1989	22	.7	1989	0	0	0	0	0
Ann	3.0	Jan 1973	11	3.0	Jan 1973	1	Jan 1973	12	#+	May 1995

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	.1	.1	.1	.0	.0
Feb	.1	.0	.0	.0	.0
Mar	.0	.0	.0	.0	.0
Apr	.0	.0	.0	.0	.0
May	.0	.0	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.0	.0	.0	.0	.0
Oct	.0	.0	.0	.0	.0
Nov	.0	.0	.0	.0	.0
Dec	.1	.0	.0	.0	.0
Ann	.3	.1	.1	.0	.0

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	@	.0	.0	.0
Feb	.0	.0	.0	.0
Mar	.0	.0	.0	.0
Apr	.0	.0	.0	.0
May	.0	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	.0	.0	.0	.0
Nov	.0	.0	.0	.0
Dec	.0	.0	.0	.0
Ann	.0	.0	.0	.0

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

@ 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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Freeze Data

Spring Freeze Dates (Month/Day)

Temp (F)	Probability of later date in spring (thru Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	3/28	3/20	3/14	3/09	3/04	2/27	2/22	2/16	2/07
32	3/21	3/09	2/28	2/21	2/14	2/07	1/31	1/22	1/10
28	3/01	2/19	2/12	2/05	1/30	1/23	1/15	1/03	0/00
24	2/09	1/28	1/18	1/09	12/29	12/09	0/00	0/00	0/00
20	1/17	1/06	12/24	0/00	0/00	0/00	0/00	0/00	0/00
16	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00

Fall Freeze Dates (Month/Day)

Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/30	11/05	11/10	11/14	11/18	11/22	11/26	12/01	12/08
32	11/10	11/19	11/26	12/01	12/06	12/12	12/17	12/24	1/02
28	11/29	12/07	12/14	12/19	12/25	12/30	1/06	1/17	0/00
24	12/09	12/22	1/02	1/12	1/24	2/14	0/00	0/00	0/00
20	12/28	1/08	1/21	0/00	0/00	0/00	0/00	0/00	0/00
16	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00	0/00

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	290	279	272	265	259	252	245	238	227
32	339	324	313	303	295	286	277	266	250
28	>365	>365	>365	340	328	318	309	299	287
24	>365	>365	>365	>365	>365	>365	344	325	309
20	>365	>365	>365	>365	>365	>365	>365	>365	>365
16	>365	>365	>365	>365	>365	>365	>365	>365	>365

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

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

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Degree Days to Selected Base Temperatures (˚F)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	411	286	143	41	1	0	0	0	1	34	181	349	1447
60	286	165	50	8	0	0	0	0	0	6	106	226	847
57	222	115	23	2	0	0	0	0	0	2	69	166	599
55	185	87	13	0	0	0	0	0	0	1	49	132	467
50	107	35	2	0	0	0	0	0	0	0	18	62	224
32	0	0	0	0	0	0	0	0	0	0	0	0	0

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	628	663	939	1089	1349	1470	1577	1570	1408	1186	870	692	13441
55	86	116	253	402	636	780	864	857	718	476	227	114	5529
57	64	87	203	344	574	720	802	795	658	416	185	89	4937
60	38	54	137	262	481	630	709	702	568	328	132	58	4099
65	11	16	55	140	324	480	553	546	417	195	63	23	2823
70	1	2	13	54	181	330	399	392	275	95	21	4	1767

Growing Degree Units (2)

Base	Growing Degree Units (Monthly)												Growing Degree Units (Accumulated Monthly)											
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
40	402	475	701	858	1113	1238	1337	1335	1179	944	639	461	402	877	1578	2436	3549	4787	6124	7459	8638	9582	10221	10682
45	275	343	547	708	958	1088	1182	1180	1029	789	492	323	275	618	1165	1873	2831	3919	5101	6281	7310	8099	8591	8914
50	167	223	402	558	803	938	1027	1025	879	635	354	204	167	390	792	1350	2153	3091	4118	5143	6022	6657	7011	7215
55	94	128	264	410	648	788	872	870	729	482	234	120	94	222	486	896	1544	2332	3204	4074	4803	5285	5519	5639
60	41	59	145	270	493	638	717	715	579	334	136	66	41	100	245	515	1008	1646	2363	3078	3657	3991	4127	4193
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	232	276	432	567	791	881	934	930	826	637	400	267	232	508	940	1507	2298	3179	4113	5043	5869	6506	6906	7173

(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

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

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

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

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   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