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: PAUL 1 ENE, ID **COOP ID: 106877**

Climate Division: ID 7 **NWS Call Sign:** **Elevation: 4,150 Feet** **Lat: 42˚38N** **Lon: 113˚46W**

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	35.1	17.7	26.4	63	1953	11	35.5	1998	-31	1949	25	14.8	1979	1196	0	.0	.0	1.8	11.2	29.5	2.6
Feb	41.7	21.5	31.6	69	1950	27	39.5	1992	-21	1950	2	20.1	1985	935	0	.0	.0	6.2	5.0	26.1	1.1
Mar	51.2	27.5	39.4	78	1986	29	45.8	1986	-3+	1993	1	28.0	1985	796	0	.0	.0	16.9	.8	24.9	.1
Apr	60.3	33.0	46.7	88	1992	30	52.2	1987	11	1967	1	39.8	1975	550	0	.0	.0	25.1	@	15.0	.0
May	68.8	40.8	54.8	95	1954	20	61.0	1992	16	1967	1	50.2	1975	323	8	.0	.3	29.7	.0	3.1	.0
Jun	78.7	48.1	63.4	102	1988	26	68.9	1986	30+	1976	14	59.0	1993	116	68	@	4.0	29.9	.0	.1	.0
Jul	87.4	53.4	70.4	104	1998	17	75.5	1998	28	1959	8	62.5	1993	24	191	.4	13.0	31.0	.0	.0	.0
Aug	87.3	51.2	69.3	104	1990	9	73.5	1998	31	1965	29	63.3	1976	38	170	.5	12.5	31.0	.0	@	.0
Sep	76.4	42.1	59.3	100	1998	5	66.6	1990	20	1965	19	53.9	1985	208	36	@	2.3	29.8	.0	2.6	.0
Oct	63.9	33.2	48.6	89+	1992	2	55.6	1988	8	1971	30	44.4	1984	511	0	.0	.0	27.6	.1	14.5	.0
Nov	46.8	25.0	35.9	74+	1999	7	42.8	1995	-15	1955	16	26.5	1985	873	0	.0	.0	11.2	2.9	25.0	.3
Dec	36.6	17.9	27.3	65	1995	2	34.0	1980	-25	1990	23	13.6	1985	1170	0	.0	.0	2.5	9.5	29.4	2.3
Ann	61.2	34.3	47.8	104+	Jul 1998	17	75.5	Jul 1998	-31	Jan 1949	25	13.6	Dec 1985	6740	473	.9	32.1	242.7	29.5	170.2	6.4

\+ 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: 1948-2001

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

Issue Date: February 2004

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: PAUL 1 ENE, ID **COOP ID: 106877**

Climate Division: ID 7 **NWS Call Sign:** **Elevation: 4,150 Feet** **Lat: 42˚38N** **Lon: 113˚46W**

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	1.02	.95	1.07	1956	16	2.92	1980	.17	1984
Feb	.74	.50	1.75	1986	18	4.27	1986	.05+	1997
Mar	.97	.69	.90	1986	9	3.28	1989	.02	1994
Apr	.89	.74	1.36	1951	29	3.09	1971	.00	1987
May	1.32	.97	1.29	1964	29	4.64	1998	.00	1992
Jun	.87	.68	1.19	1968	8	3.08	1995	.07	2000
Jul	.41	.27	.96	1952	13	1.44	1982	.00+	1991
Aug	.37	.23	1.03	1951	23	1.02	1976	.00+	1996
Sep	.65	.52	1.07	1994	30	1.92	1978	.00+	1999
Oct	.70	.55	.75	1964	30	1.99	1975	.00	1988
Nov	1.02	1.00	.98	1983	18	2.60	1988	.00	1993
Dec	.92	.62	1.50	1964	23	3.64	1996	.00	1976
Ann	9.88	9.79	1.75	Feb 1986	18	4.64	May 1998	.00+	Sep 1999

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	8.7	3.3	.3	.0
Feb	6.6	2.4	.1	@
Mar	7.7	3.2	.3	.0
Apr	7.4	2.9	.2	@
May	8.0	3.7	.5	.1
Jun	5.7	2.5	.3	.0
Jul	2.8	1.4	.1	.0
Aug	3.7	1.2	.1	.0
Sep	4.1	2.0	.3	@
Oct	5.1	2.5	.2	.0
Nov	8.5	3.3	.2	.0
Dec	7.7	2.8	.3	.0
Ann	76.0	31.2	2.9	.1

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	.15	.23	.38	.52	.67	.83	1.01	1.24	1.54	2.04	2.52
Feb	.05	.09	.18	.28	.40	.53	.69	.90	1.19	1.68	2.16
Mar	.06	.11	.23	.36	.51	.69	.90	1.17	1.55	2.20	2.85
Apr	.05	.13	.27	.40	.54	.69	.87	1.10	1.40	1.91	2.40
May	.09	.22	.43	.62	.82	1.05	1.31	1.62	2.05	2.76	3.44
Jun	.06	.11	.22	.34	.47	.63	.81	1.05	1.38	1.93	2.48
Jul	.00	.01	.05	.11	.17	.25	.36	.49	.68	1.02	1.36
Aug	.00	.02	.08	.14	.20	.27	.35	.46	.61	.86	1.10
Sep	.00	.00	.15	.27	.38	.50	.65	.82	1.06	1.45	1.82
Oct	.04	.11	.22	.32	.43	.55	.69	.86	1.09	1.48	1.85
Nov	.08	.19	.35	.50	.66	.83	1.02	1.26	1.58	2.10	2.60
Dec	.01	.06	.16	.28	.43	.60	.82	1.10	1.51	2.20	2.90
Ann	5.74	6.48	7.46	8.22	8.92	9.60	10.32	11.13	12.13	13.60	14.91

\+ 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: 1948-2001
(3) Derived from 1971-2000 serially complete daily data

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

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

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: PAUL 1 ENE, ID **COOP ID: 106877**

Climate Division: ID 7 **NWS Call Sign:** **Elevation: 4,150 Feet** **Lat: 42°38N** **Lon: 113°46W**

Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

Snow Fall >= Thresholds

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	3.4	3.3	1	#	8.5	1996	19	8.5	1996	13	1993	9	6	1993	3.5	1.9	.3	.1	.0	7.0	2.3	1.6	.1
Feb	2.3	1.8	#	#	6.0	1972	24	11.0	1984	9	1984	17	4	1984	1.6	1.1	.2	.1	.0	.8	.0	.0	.0
Mar	1.6	.5	#	#	7.0	1974	2	8.0	1985	8	1985	4	1	1985	1.0	.5	.2	.1	.0	1.3	.3	.3	.0
Apr	.2	.0	#	0	1.0	1971	19	1.4	1986	4	1999	8	#+	1999	.3	.1	.0	.0	.0	.1	.0	.0	.0
May	.2	.0	#	0	2.0	1975	20	2.8	1975	8	1975	6	#+	1978	.2	.1	.0	.0	.0	.1	.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	#	1978	18	#	1978	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.1	.0	#	0	1.0	1971	28	2.0	1971	1	1995	22	#+	1997	.1	.1	.0	.0	.0	.1	.0	.0	.0
Nov	2.6	1.4	#	#	6.0	1977	22	8.0	1979	8	1977	22	2	1985	1.9	1.0	.2	.1	.0	1.8	.9	.1	.0
Dec	3.0	1.5	1	#	8.0	1992	30	12.5	1971	10	1983	4	7	1994	3.1	1.6	.2	.1	.0	3.7	.6	.2	.0
Ann	13.4	8.5	N/A	N/A	8.5	Jan 1996	19	12.5	Dec 1971	13	Jan 1993	9	7	Dec 1994	11.7	6.4	1.1	.5	.0	14.9	4.1	2.2	.1

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

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

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

(2) Derived from 1971-2000 daily data

-9/-9.9 represents missing values

Annual statistics for Mean/Median snow depths are not appropriate

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

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: PAUL 1 ENE, ID **COOP ID: 106877**

Climate Division: ID 7 **NWS Call Sign:** **Elevation: 4,150 Feet** **Lat: 42˚38N** **Lon: 113˚46W**

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	6/25	6/19	6/14	6/10	6/07	6/03	5/30	5/26	5/19
32	6/01	5/26	5/22	5/18	5/14	5/11	5/07	5/03	4/27
28	5/13	5/08	5/04	5/01	4/29	4/26	4/23	4/19	4/14
24	5/01	4/24	4/20	4/16	4/12	4/08	4/05	3/31	3/25
20	4/17	4/10	4/05	3/31	3/27	3/23	3/19	3/13	3/06
16	3/22	3/14	3/08	3/03	2/27	2/22	2/17	2/11	2/03

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	8/29	9/03	9/07	9/11	9/14	9/17	9/20	9/24	9/30
32	9/10	9/14	9/18	9/21	9/24	9/26	9/29	10/03	10/07
28	9/19	9/25	9/30	10/04	10/07	10/11	10/15	10/20	10/26
24	10/10	10/14	10/17	10/20	10/22	10/25	10/27	10/31	11/04
20	10/19	10/25	10/29	11/02	11/05	11/09	11/12	11/17	11/23
16	10/30	11/05	11/10	11/14	11/18	11/22	11/26	11/30	12/07

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	125	116	110	104	99	93	88	81	72
32	159	149	143	137	132	126	120	114	104
28	190	180	173	167	161	156	150	143	133
24	213	206	201	197	192	188	184	179	172
20	253	243	235	228	222	216	210	202	192
16	295	284	276	270	264	257	251	243	232

***** 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

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

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: PAUL 1 ENE, ID **COOP ID: 106877**

Climate Division: ID 7 **NWS Call Sign:** **Elevation: 4,150 Feet** **Lat: 42˚38N** **Lon: 113˚46W**

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	1196	935	796	550	323	116	24	38	208	511	873	1170	6740
60	1041	795	641	404	194	47	4	10	111	359	723	1015	5344
57	948	711	548	322	131	23	1	3	69	272	633	922	4583
55	886	655	488	269	97	13	0	1	47	220	573	860	4109
50	733	524	347	158	37	2	0	0	14	111	434	706	3066
32	260	148	37	3	0	0	0	0	0	1	81	239	769

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	87	137	264	443	707	942	1190	1155	819	513	198	92	6547
55	0	0	2	19	92	265	477	444	175	20	0	0	1494
57	0	0	0	12	64	215	416	384	137	10	0	0	1238
60	0	0	0	4	33	149	327	297	90	3	0	0	903
65	0	0	0	0	8	68	191	170	36	0	0	0	473
70	0	0	0	0	1	21	92	80	11	0	0	0	205

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	1	17	80	217	455	697	938	908	579	285	51	5	1	18	98	315	770	1467	2405	3313	3892	4177	4228	4233
45	0	1	28	116	307	548	783	753	432	164	14	0	0	1	29	145	452	1000	1783	2536	2968	3132	3146	3146
50	0	0	1	53	188	398	628	598	291	80	0	0	0	0	1	54	242	640	1268	1866	2157	2237	2237	2237
55	0	0	0	18	97	261	473	444	176	25	0	0	0	0	0	18	115	376	849	1293	1469	1494	1494	1494
60	0	0	0	2	39	150	323	297	83	4	0	0	0	0	0	2	41	191	514	811	894	898	898	898
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	0	15	67	166	295	436	591	574	396	226	48	3	0	15	82	248	543	979	1570	2144	2540	2766	2814	2817

(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