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: 177479

Lon: 70°47W

Station: SANFORD 2 NNW, ME

Climate Division: ME 3 NWS Call Sign:

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 32.0 11.7 21.9 62 1974 27 29.8 1990 -28 1957 18 13.4 1982 1337 0 .0 .0 1.5 14.9 30.1 6.3 Jan 22 36.0 14.0 25.0 68 1997 32.3 1984 -25 1967 13 17.3 1993 1121 0 .0 .0 2.5 9.6 26.6 4.2 Feb Mar 45.2 23.6 34.4 88 1998 31 39.5 1977 -13 1967 19 27.9 1984 949 0 .0 .0 9.5 2.7 26.1 .6 33.1 92 27 40.2 1972 Apr 57.1 45.1 1962 49.0 1991 -10 1982 8 597 0 .0 .1 22.6 .1 14.5 .0 May 69.6 43.3 56.5 97 1962 19 61.1 1991 22 +1981 18 51.3 1974 272 7 .0 .8 30.6 .0 2.3 .0 97 70.3 31 3 60.2 2.2 .0 77.8 52.6 65.2 1991 28 1976 1986 1982 66 71 .0 30.0 .0 @ Jun Jul 82.5 58.1 70.3 98+ 20 73.7 1994 38+ 1962 3 66.7 2000 8 172 3.7 31.0 0. .0 1991 .0 .0 80.4 56.8 68.6 101 1975 2 71.8 1988 31 1965 30 65.7 1986 18 131 .1 2.0 31.0 .0 .0 .0 Aug 23 Sep 72.1 48.5 60.3 95+ 1960 8 64.9 1999 1965 28 57.4 1978 157 16 .0 .2 30.0 .0 1.1 .0 7 55.4 31 44.2 1974 Oct 61.1 37.4 49.3 89 1963 1971 12 1966 489 0 .0 .0 28.3 .0 10.5 .0 47.9 29.4 38.7 75 1974 1 43.7 1999 -1 1989 24 33.8 1976 790 0 .0 .0 12.2 19.7 @ Nov 1.1 Dec 36.6 18.5 27.6 73 1998 7 33.6 1996 -20 1963 31 14.0 1989 1161 0 .0 .0 3.1 9.6 28.7 2.1 Aug Jul Jan Jan 58.2 35.6 46.9 101 1975 2 73.7 1994 -28 1957 18 13.4 1982 6965 397 9.0 232.3 38.0 159.6 13.2 .1 Ann

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

Issue Date: February 2004 030-A

(1) From the 1971-2000 Monthly Normals

Elevation: 280 Feet Lat: 43°28N

- (2) Derived from station's available digital record: 1953-2001
- (3) Derived from 1971-2000 serially complete daily data

⁺ Also occurred on an earlier date(s)

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

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COOP ID: 177479

Climate Division: ME 3 NWS Call Sign: Elevation: 280 Feet Lat: 43°28N Lon: 70°47W

										Pı	recipi	tation	(incl	nes)												
	Mea	ans/	P	recip	itatio	on Total						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												
	Medi	ans(1)		EAUCINES							aily Pre	стриацо	n	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	4.16	3.99	2.37	1983	11	11.03	1979	.47	1981	9.9	7.2	2.8	1.0	.91	1.30	1.91	2.46	3.01	3.60	4.26	5.05	6.09	7.75	9.31		
Feb	3.51	3.18	3.32	1977	25	10.58	1981	.02	1987	7.5	5.8	2.5	.9	.57	.87	1.38	1.86	2.36	2.90	3.53	4.28	5.30	6.94	8.51		
Mar	4.51	4.09	3.27	2001	22	12.10	1983	1.28	1981	10.1	7.5	3.1	1.3	1.58	2.01	2.62	3.14	3.64	4.15	4.71	5.36	6.19	7.47	8.65		
Apr	4.50	3.99	3.50	1980	10	8.55	1973	.55	1999	10.2	7.1	3.2	1.1	1.36	1.79	2.42	2.97	3.51	4.06	4.67	5.39	6.32	7.77	9.12		
May	3.92	3.48	4.27	1954	9	10.41	1984	1.03	1993	11.5	8.0	2.6	.9	1.12	1.49	2.05	2.54	3.02	3.52	4.07	4.72	5.56	6.88	8.12		
Jun	3.53	3.14	4.45	1998	14	13.67	1998	.87	1979	10.5	6.7	2.2	.7	.84	1.17	1.68	2.14	2.60	3.08	3.63	4.27	5.12	6.45	7.71		
Jul	3.91	3.55	2.68	1963	19	8.69	2000	1.37	1977	10.3	7.0	3.0	.8	1.48	1.85	2.37	2.80	3.21	3.63	4.09	4.61	5.28	6.32	7.26		
Aug	3.63	2.91	4.71	1991	19	12.79	1991	.37	1996	9.0	6.3	2.2	.8	.88	1.22	1.75	2.23	2.69	3.19	3.74	4.40	5.26	6.62	7.91		
Sep	3.75	3.19	7.00	1960	12	12.03	1999	.51	1978	9.2	6.1	2.6	1.1	.84	1.19	1.74	2.24	2.73	3.26	3.85	4.55	5.48	6.96	8.35		
Oct	4.27	3.94	4.48	1962	7	9.61	1977	.26	1994	9.5	6.3	2.8	1.4	1.20	1.60	2.22	2.75	3.28	3.82	4.43	5.14	6.07	7.53	8.89		
Nov	4.82	4.40	3.87	1988	2	14.05	1983	.68	1976	10.3	7.4	3.4	1.3	1.58	2.03	2.71	3.28	3.83	4.40	5.03	5.76	6.69	8.15	9.50		
Dec	4.28	3.73	2.92+	1993	21	9.52	1973	.77	1980	10.2	7.3	2.9	1.1	1.13	1.54	2.16	2.70	3.24	3.80	4.42	5.16	6.13	7.64	9.06		
Ann	48.79	49.78	7.00	Sep 1960	12	14.05	Nov 1983	.02	Feb 1987	118.2	82.7	33.3	12.4	37.63	39.86	42.68	44.79	46.65	48.43	50.26	52.27	54.69	58.16	61.13		

⁺ 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: 1953-2001

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

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COOP ID: 177479

Station: SANFORD 2 NNW, ME

Climate Division: ME 3 NWS Call Sign: Elevation: 280 Feet Lat: 43°28N Lon: 70°47W

										Snov	v (incl	hes)												
						Sno	ow To	tals									Mea	n Nui	mber	of Day	ys (1)			
	Mean	s/Medi	ans (1))		Extremes (2)												Snow Fall >= 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	13.1	14.1	12	7	14.0	1977	10	20.8	1990	63	1971	23	55	1971	3.3	3.0	2.0	1.0	.2	-9.9	-9.9	-9.9	-9.9	
Feb	14.0	7.5	9	7	16.0	1972	19	38.0	1972	58	1971	6	29	1971	2.0	1.7	1.0	.7	.1	12.3	10.9	6.7	4.2	
Mar	11.1	4.0	3	1	16.0	1972	15	29.0	1971	29	1993	18	19	1993	2.0	1.7	1.0	.6	.1	-9.9	-9.9	-9.9	-9.9	
Apr	1.8	.0	#	0	8.0	1971	7	8.5	1971	8	1971	7	1	1993	.6	.5	.3	.1	.0	.8	.4	.2	.0	
May	#	.0	#	0	#	1996	6	#+	1996	#+	1997	6	#+	1997	.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	#	.0	0	0	#	1988	30	#	1988	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
Nov	2.1	.0	#	0	12.0	1971	25	18.0	1971	12	1971	25	2	1971	.8	.6	.2	.1	.1	1.3	.5	.4	.1	
Dec	13.8	15.0	3	3	10.0	1976	29	29.0	1971	17	1975	31	9	1981	2.7	2.3	1.8	1.0	.1	14.1	10.8	8.4	3.2	
Ann	55.9	40.6	N/A	N/A	16.0+	Mar 1972	15	38.0	Feb 1972	63	Jan 1971	23	55	Jan 1971	11.4	9.8	6.3	3.5	.6	-9.9	-9.9	-9.9	-9.9	

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

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[@] 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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COOP ID: 177479

Lon: 70°47W

Lat: 43°28N

Elevation: 280 Feet

Station: SANFORD 2 NNW, ME

Climate Division: ME 3 NWS Call Sign:

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 6/08 6/03 5/30 5/27 5/24 5/22 5/19 5/15 5/10 32 5/22 5/18 5/15 5/12 5/10 5/07 5/05 5/02 4/27 28 5/09 5/05 5/02 4/29 4/27 4/25 4/22 4/19 4/15 4/15 3/30 24 5/02 4/26 4/22 4/18 4/12 4/08 4/04 20 4/16 4/11 4/08 4/05 4/02 3/30 3/27 3/24 3/19 4/04 3/25 3/22 16 4/10 3/31 3/28 3/19 3/15 3/10 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 36 9/08 9/12 9/14 9/17 9/19 9/21 9/23 9/26 9/30 32 9/21 9/24 9/26 9/28 9/30 10/02 10/04 10/06 10/09 28 9/27 10/02 10/05 10/08 10/10 10/13 10/16 10/19 10/24 24 10/13 10/18 10/22 10/25 10/28 10/31 11/03 11/07 11/12 20 10/21 10/28 11/01 11/06 11/09 11/13 11/17 11/22 11/29 11/04 11/19 11/23 11/26 16 11/10 11/15 11/30 12/05 12/11 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 135 129 124 120 117 113 109 104 36 98 32 159 153 149 146 142 139 136 132 126 28 179 174 170 162 157 152 146 186 166 24 218 210 204 199 195 190 186 180 172

226

247

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

231

252

Derived from 1971-2000 serially complete daily data

246

268

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Complete documentation available from:

210

231

204

224

196

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221

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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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Station: SANFORD 2 NNW, ME

COOP ID: 177479

Climate Division: ME 3 NWS Call Sign: Elevation: 280 Feet Lat: 43°28N Lon: 70°47W

				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree 1	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1337	1121	949	597	272	66	8	18	157	489	790	1161	6965
60	1182	981	794	447	147	16	0	1	61	339	640	1006	5614
57	1089	897	701	359	89	5	0	0	29	255	550	913	4887
55	1027	841	639	301	60	2	0	0	16	205	490	851	4432
50	872	701	484	173	16	0	0	0	2	103	344	696	3391
32	346	238	70	1	0	0	0	0	0	0	27	225	907

Base						Coolin	g Degree I	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	31	42	144	394	758	996	1187	1136	848	534	227	87	6384
55	0	0	0	4	105	308	474	423	174	26	0	0	1514
57	0	0	0	2	72	251	412	361	127	14	0	0	1239
60	0	0	0	0	37	172	319	269	70	5	0	0	872
65	0	0	0	0	7	71	172	131	16	0	0	0	397
70	0	0	0	0	1	17	62	40	1	0	0	0	121

Growing Degree Units (2) Base Growing Degree Units (Monthly) Growing Degree Units (Accumulated Monthly)																									
Base					Growin	g Degree	Units (N	(Ionthly)					Growing Degree Units (Accumulated Monthly)												
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
40	0	5	48	191	524	770	958	905	625	312	91	9	0	5	53	244	768	1538	2496	3401	4026	4338	4429	4438	
45	0	0	15	98	372	620	803	750	477	188	43	3	0	0	15	113	485	1105	1908	2658	3135	3323	3366	3369	
50	0	0	5	45	230	470	648	595	331	91	15	0	0	0	5	50	280	750	1398	1993	2324	2415	2430	2430	
55	0	0	3	17	121	323	493	440	200	36	3	0	0	0	3	20	141	464	957	1397	1597	1633	1636	1636	
60	0	0	1	6	55	194	338	293	106	7	0	0	0	0	1	7	62	256	594	887	993	1000	1000	1000	
Base	Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)				
50/86	0 2 43 136 326 488 636 600 394 197 53 7											0	2	45	181	507	995	1631	2231	2625	2822	2875	2882		

(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