### 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: 075915

Station: MILFORD 2 SE, DE

**Climate Division: DE 2** 

**NWS Call Sign:** 

Elevation: 35 Feet Lat: 38°54N Lon: 75°26W

	Max   Min   Daily(2)   Mean   Daily(2)   Mean   M																				
	Mea	<b>n</b> (1)						Extr	emes						•		Mean	Numb	er of I	Days (3)	)
Month			Mean		Year	Day	Month(1)	Year		Year	Day	Month(1)	Year	Heating	Cooling	>=	>=	>=	<=	<=	Min <= 0
Jan	42.8	24.4	33.6	75+	1950	25	41.8	1990	-7	1982	18	22.7	1977	974	0	.0	.0	7.1	3.8	23.3	.3
Feb	44.9	24.9	34.9	78	2000	26	42.7	1976	-4+	1961	2	23.1	1978	842	0	.0	.0	10.4	3.2	21.8	.2
Mar	54.2	33.4	43.8	84+	1979	31	50.3	1977	4	1960	11	38.6	1984	658	0	.0	.0	21.6	.3	13.2	.0
Apr	64.0	42.2	53.1	93	1957	27	57.6	1994	20	1969	1	48.2	1975	359	2	.0	.4	29.0	.0	2.8	.0
May	73.3	52.3	62.8	96	1963	4	68.4	1991	30+	1966	11	59.1	1992	119	50	.0	.7	31.0	.0	@	.0
Jun	81.7	61.8	71.8	102	1959	29	75.0	1994	40+	1967	1	67.7	1972	10	213	.1	4.5	30.0	.0	.0	.0
Jul	86.7	66.7	76.7	103	1949	5	78.9	1999	47	1979	6	73.3	2000	0	361	.3	9.3	31.0	.0	.0	.0
Aug	84.6	64.9	74.8	103	1975	26	78.6	1980	43+	1964	15	70.8	1992	2	304	.1	5.9	31.0	.0	.0	.0
Sep	78.3	57.1	67.7	99+	1970	23	72.3	1980	34+	1963	25	65.4	1984	30	111	.0	2.2	30.0	.0	.0	.0
Oct	68.0	45.8	56.9	91+	1954	4	62.7	1984	19	1969	24	51.9	1988	268	17	.0	@	30.8	.0	1.7	.0
Nov	57.5	36.4	47.0	86	1950	1	53.7	1985	13	1955	29	40.1	1976	542	0	.0	.0	24.1	.1	8.8	.0
Dec	47.9	29.4	38.7	76	2001	5	44.8	1984	2+	1958	16	25.5	1989	818	0	.0	.0	13.7	2.1	21.3	.0
Ann	65.3	44.9	55.2	103+	Aug 1975	26	78.9	Jul 1999	-7	Jan 1982	18	22.7	Jan 1977	4622	1058	.5	23.0	289.7	9.5	92.9	.5

<sup>+</sup> Also occurred on an earlier date(s)

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

Issue Date: February 2004 003-A

- (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

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

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**COOP ID: 075915** 

Station: MILFORD 2 SE, DE

Climate Division: DE 2 NWS Call Sign: Elevation: 35 Feet Lat: 38°54N Lon: 75°26W

										Pı	recipi	tation	(incl	hes)										
		ans/	P	recip	itatio	on Total  Extremes					ean N of D	ays (3	)	Proba		M	nonthly/ onthly/Ar	annual j indic	precipitated am	ount vs Proba	ies (1)  Il be equ	els		ın the
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	4.08	3.74	2.22	1987	2	7.69	1987	.79	1981	8.6	5.8	2.2	.8	1.44	1.82	2.38	2.85	3.30	3.76	4.26	4.85	5.60	6.76	7.82
Feb	3.17	2.74	1.82	1988	12	7.44	1979	1.14	1978	9.2	6.0	2.2	.7	1.11	1.41	1.84	2.21	2.56	2.92	3.31	3.77	4.36	5.26	6.10
Mar	4.51	4.08	3.71	2000	22	9.04	1994	1.56	1986	8.4	5.8	2.5	.9	1.59	2.01	2.63	3.15	3.65	4.16	4.71	5.36	6.19	7.47	8.65
Apr	3.50	3.27	2.14	1952	27	7.07	1983	.54	1985	11.1	6.9	2.8	.6	1.27	1.60	2.07	2.47	2.85	3.24	3.66	4.15	4.78	5.74	6.63
May	4.03	4.13	2.91	1990	5	9.38	1990	.69	1986	12.1	7.3	2.6	.9	1.29	1.67	2.24	2.72	3.19	3.67	4.20	4.82	5.62	6.87	8.01
Jun	3.31	2.99	4.41	1969	15	7.36	1972	.85	1976	7.6	5.1	1.6	.5	1.07	1.38	1.85	2.24	2.63	3.02	3.45	3.96	4.61	5.63	6.56
Jul	3.69	3.15	4.00	1959	10	10.81	1975	1.05	1974	10.2	6.2	2.2	.9	.95	1.30	1.84	2.31	2.77	3.26	3.81	4.45	5.30	6.63	7.87
Aug	4.61	4.51	6.50	1958	25	9.62	1985	1.01	1987	9.9	6.5	2.9	1.4	1.56	2.00	2.64	3.18	3.70	4.23	4.81	5.49	6.37	7.72	8.97
Sep	4.08	3.84	7.23	1960	12	9.97	1999	.39	1986	9.1	5.8	2.5	1.2	1.19	1.58	2.16	2.67	3.16	3.67	4.24	4.91	5.77	7.12	8.38
Oct	3.48	3.13	4.08	1953	28	8.34	1976	.10	2000	6.5	4.1	1.8	.7	.80	1.12	1.63	2.09	2.54	3.03	3.57	4.22	5.07	6.43	7.71
Nov	3.32	3.54	3.03	1956	1	6.72	1997	.84	1974	7.0	4.5	1.9	.6	.93	1.25	1.73	2.14	2.55	2.97	3.44	4.00	4.72	5.85	6.91
Dec	3.59	3.03	2.78	1986	25	7.46	1996	.41	1988	7.9	4.8	1.8	.6	.80	1.13	1.66	2.13	2.61	3.11	3.68	4.36	5.25	6.67	8.01
Ann	45.37	43.58	7.23	Sep 1960	12	10.81	Jul 1975	.10	Oct 2000	107.6	68.8	27.0	9.8	34.64	36.78	39.49	41.52	43.32	45.04	46.81	48.75	51.09	54.45	57.34

<sup>+</sup> Also occurred on an earlier date(s)

Complete documentation available from:

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

<sup>#</sup> Denotes amounts of a trace

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>\*\*</sup> Statistics not computed because less than six years out of thirty had measurable precipitation

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1948-2001

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**COOP ID: 075915** 

Station: MILFORD 2 SE, DE

Climate Division: DE 2 NWS Call Sign: Elevation: 35 Feet Lat: 38°54N Lon: 75°26W

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nu	mber	of Day	ys (1)		
	Mean	s/Medi	ians (1)	1					Extre	mes (2)							ow Fa					Depth esholo	
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	5.6	5.0	1	#	13.0	1987	26	19.5	1987	17	1987	26	3	1987	2.2	2.0	.8	.3	.1	4.1	2.4	.9	.2
Feb	6.9	3.3	1	#	18.0	1979	19	31.3	1979	24	1979	19	7	1979	2.0	1.8	.8	.4	.2	4.3	2.5	1.9	.6
Mar	1.2	.0	#	#	6.5	1978	3	11.5	1978	7	1980	2	2	1978	.4	.4	.1	.1	.0	.9	.4	.3	.0
Apr	.3	.0	#	0	1.0	1982	7	2.0	1982	#+	2000	9	#+	2000	.2	.2	.0	.0	.0	.0	.0	.0	.0
May	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.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	1979	10	1.0	1979	#	1979	10	#	1979	.1	.1	.0	.0	.0	.0	.0	.0	.0
Nov	.5	.0	#	0	6.0	1989	23	6.0	1989	6	1989	23	#+	1989	.2	.2	.1	.1	.0	.2	.1	.1	.0
Dec	1.8	.0	#	#	8.0	1982	12	10.3	1989	8	1982	12	2	1989	.7	.6	.2	.1	.0	1.8	.5	.3	.0
Ann	16.4	8.3	N/A	N/A	18.0	Feb 1979	19	31.3	Feb 1979	24	Feb 1979	19	7	Feb 1979	5.8	5.3	2.0	1.0	.3	11.3	5.9	3.5	.8

<sup>+</sup> Also occurred on an earlier date(s) #Denotes trace amounts

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

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>-9/-9.9</sup> represents missing values Annual statistics for Mean/Median snow depths are not appropriate

<sup>(1)</sup> Derived from Snow Climatology and 1971-2000 daily data

<sup>(2)</sup> Derived from 1971-2000 daily data

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**COOP ID: 075915** 

**Station: MILFORD 2 SE, DE** 

**Climate Division: DE 2** 

**NWS Call Sign:** 

Elevation: 35 Feet Lat: 38°54N Lon: 75°26W

				Freez	e Data				
			Spri	ng Freeze D	ates (Month/	(Day)			
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated	(*)	
icinp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	5/08	5/01	4/26	4/22	4/18	4/14	4/10	4/05	3/29
32	4/25	4/19	4/15	4/12	4/09	4/06	4/02	3/29	3/24
28	4/13	4/08	4/04	4/01	3/29	3/26	3/22	3/18	3/13
24	4/01	3/26	3/22	3/18	3/15	3/12	3/08	3/04	2/26
20	3/26	3/18	3/12	3/07	3/02	2/25	2/20	2/13	2/03
16	3/13	3/05	2/27	2/22	2/17	2/12	2/06	1/31	1/21
			Fal	ll Freeze Da	tes (Month/D	Day)			
Temp (F)		Pro	bability of ea	arlier date i	n fall (beginn	ning Aug 1) t	han indicate	ed(*)	
remb (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/30	10/06	10/10	10/13	10/16	10/19	10/23	10/27	11/01
32	10/09	10/15	10/19	10/22	10/25	10/28	11/01	11/04	11/10
28	10/21	10/27	10/31	11/04	11/07	11/11	11/14	11/19	11/25
24	11/01	11/11	11/18	11/25	12/01	12/07	12/13	12/21	12/31
20	11/21	11/29	12/05	12/10	12/15	12/20	12/25	1/01	1/11
16	11/29	12/09	12/16	12/22	12/28	1/03	1/09	1/17	1/29
				Freeze F	ree Period	•			
Temp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)	)	
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	211	201	193	187	181	174	168	160	150
32	227	217	210	204	199	193	187	180	170
28	250	241	234	228	223	218	212	206	196
24	293	282	273	266	260	254	247	238	227
20	335	314	303	294	286	279	271	261	249
16	>365	338	325	316	309	302	295	287	276

<sup>\*</sup> 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.

Complete documentation available from:

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**Station: MILFORD 2 SE, DE** 

COOP ID: 075915

Climate Division: DE 2 NWS Call Sign: Elevation: 35 Feet Lat: 38°54N Lon: 75°26W

				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	974	842	658	359	119	10	0	2	30	268	542	818	4622
60	819	702	503	222	44	1	0	0	5	153	395	663	3507
57	726	618	413	152	20	0	0	0	1	101	313	575	2919
55	665	566	356	112	10	0	0	0	0	73	260	518	2560
50	522	436	224	43	1	0	0	0	0	27	149	378	1780
32	129	98	11	0	0	0	0	0	0	0	3	60	301

Base						Coolin	g Degree I	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	178	180	376	633	954	1193	1384	1326	1071	772	451	265	8783
55	1	4	8	55	251	503	671	613	381	132	18	10	2647
57	0	0	3	34	199	443	609	551	322	98	10	6	2275
60	0	0	0	14	131	354	516	458	236	57	3	0	1769
65	0	0	0	2	50	213	361	304	111	17	0	0	1058
70	0	0	0	0	12	100	208	165	32	3	0	0	520

	Growing Degree Units (2)  Base Growing Degree Units (Monthly) Growing																							
Base														Growing Degree Units (Accumulated Monthly)										
	Jan         Feb         Mar         Apr         May         Jun         Jul         Aug         Sep         Oct         Nov         Dec           0         51         78         210         426         750         979         1148         1101         871         570         288         104													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	51 78 210 426 750 979 1148 1101 871 570 288 22 38 116 282 595 829 993 946 721 418 177													129	339	765	1515	2494	3642	4743	5614	6184	6472	6576
45													22	60	176	458	1053	1882	2875	3821	4542	4960	5137	5184
50	7 17 61 156 440 679 838 791 571 273 98												7	24	85	241	681	1360	2198	2989	3560	3833	3931	3954
55	0	2	27	71	290	529	683	636	422	153	44	5	0	2	29	100	390	919	1602	2238	2660	2813	2857	2862
60	0	0	9	27	159	380	528	482	279	68	13	0	0	0	9	36	195	575	1103	1585	1864	1932	1945	1945
Base	Growing Degree Units for Corn (Monthly)											Growing Degree Units for Corn (Accumulated Monthly)												
50/86	<b>50/86</b> 29 54 127 251 460 666 797 767 574 345 163 58												29	83	210	461	921	1587	2384	3151	3725	4070	4233	4291

(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