

# Climatography of the United States

No. 20

1971-2000

Station: PLYMOUTH 5 E, NC

COOP ID: 316853

Climate Division: NC 8

NWS Call Sign:

Elevation: 20 Feet

Lat: 35° 52N

Lon: 76° 39W

## 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	54.0	33.1	43.6	81	1950	31	55.1	1974	-5	1985	21	33.2	1977	664	0	.0	.0	19.7	.7	16.4	@
Feb	57.6	34.4	46.0	84+	1989	3	54.1	1990	4	1979	10	34.5	1978	532	0	.0	.0	20.6	.5	14.4	.0
Mar	65.4	40.6	53.0	90	1985	30	58.3	1974	15	1950	3	47.9	1996	378	5	.0	@	28.7	.0	8.6	.0
Apr	74.2	47.6	60.9	95	1960	26	64.9	1985	25+	1973	12	57.2	1983	150	27	.0	.6	29.9	.0	1.7	.0
May	80.8	56.8	68.8	97+	1996	19	73.4	1991	31	1954	11	64.4	1992	27	145	.0	3.3	31.0	.0	.0	.0
Jun	87.0	65.0	76.0	102+	1981	15	80.6	1981	42	1965	5	72.1	1992	1	331	@	10.9	30.0	.0	.0	.0
Jul	90.1	69.6	79.9	102	1952	22	82.0	1991	47	1972	8	77.5	2000	0	460	.0	17.7	31.0	.0	.0	.0
Aug	88.3	68.0	78.2	103	1983	22	80.7	1980	39	1965	31	75.2	1981	0	407	.4	12.9	31.0	.0	.0	.0
Sep	83.6	62.6	73.1	99+	1985	8	77.3	1980	36	1951	30	70.2	1994	4	246	.0	4.6	30.0	.0	.0	.0
Oct	74.5	51.0	62.8	95	1954	6	68.7	1971	21	1962	26	57.1	1988	141	72	.0	.3	31.0	.0	.8	.0
Nov	66.0	42.6	54.3	87+	1974	3	63.0	1985	14	1951	21	46.7	1976	333	12	.0	.0	28.4	.0	6.6	.0
Dec	57.5	36.0	46.8	82+	1978	9	54.3	1971	2	1989	25	37.0	1989	569	2	.0	.0	23.5	.2	13.6	.0
Ann	73.3	50.6	62.0	103	Aug 1983	22	82.0	Jul 1991	-5	Jan 1985	21	33.2	Jan 1977	2799	1707	.4	50.3	334.8	1.4	62.1	@

+ 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/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

Issue Date: February 2004

(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

074-A

# 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: PLYMOUTH 5 E, NC

COOP ID: 316853

Climate Division: NC 8

NWS Call Sign:

Elevation: 20 Feet

Lat: 35°52N

Lon: 76°39W

Precipitation (inches)																								
	Precipitation Totals									Mean Number of Days (3)				Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount										
	Means/ Medians(1)		Extremes							Daily Precipitation				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	4.54	4.28	5.10	1960	31	8.55	1987	1.56	1981	11.9	8.4	3.3	1.2	2.04	2.45	3.01	3.46	3.88	4.31	4.76	5.29	5.94	6.94	7.84
Feb	3.45	3.01	2.36	1971	23	7.63	1983	1.17	1992	9.6	6.5	2.5	.9	1.23	1.56	2.03	2.42	2.80	3.19	3.61	4.10	4.72	5.69	6.58
Mar	4.72	4.47	4.75	1991	30	9.31	1983	1.80	1985	10.9	7.7	3.3	1.3	2.14	2.56	3.14	3.60	4.04	4.48	4.95	5.48	6.16	7.18	8.11
Apr	3.49	3.21	2.86	1975	15	7.28	1989	.67	1985	8.7	6.0	2.4	1.0	1.05	1.38	1.88	2.31	2.72	3.15	3.63	4.19	4.91	6.04	7.08
May	4.50	4.13	4.05	1977	24	9.74	1990	.97	1991	11.1	7.6	2.8	1.2	1.24	1.66	2.31	2.88	3.43	4.01	4.66	5.42	6.41	7.97	9.42
Jun	5.03	4.81	4.17	1962	30	10.00	1995	1.50	1984	10.5	7.2	3.5	1.5	2.17	2.62	3.26	3.77	4.26	4.75	5.27	5.88	6.64	7.80	8.85
Jul	5.31	5.10	4.22	1965	5	14.08	1984	.91	1993	12.3	8.6	3.7	1.5	1.54	2.04	2.80	3.46	4.10	4.77	5.51	6.38	7.50	9.27	10.91
Aug	5.60	5.48	5.04	1955	12	12.29	1981	.33	1975	11.1	7.5	3.9	1.7	1.39	1.92	2.73	3.46	4.17	4.93	5.77	6.77	8.09	10.16	12.11
Sep	5.13	4.45	5.20	1955	19	15.15	1999	.63	1978	9.1	6.4	3.0	1.6	1.18	1.66	2.41	3.08	3.75	4.46	5.26	6.22	7.47	9.46	11.33
Oct	3.86	3.27	6.05	1996	8	11.52	1971	.04	2000	7.7	4.8	2.4	1.2	.42	.71	1.25	1.78	2.36	3.01	3.77	4.71	6.00	8.13	10.20
Nov	3.18	2.92	4.20	1948	4	6.64	1977	.62	1981	8.3	5.3	2.1	.9	.94	1.24	1.69	2.09	2.47	2.86	3.30	3.82	4.48	5.52	6.49
Dec	3.20	3.16	3.12	1964	27	7.81	1973	.54	1985	10.6	6.5	2.4	.7	.91	1.22	1.68	2.08	2.46	2.87	3.32	3.85	4.54	5.62	6.62
Ann	52.01	51.44	6.05	Oct 1996	8	15.15	Sep 1999	.04	Oct 2000	121.8	82.5	35.3	14.7	40.26	42.61	45.58	47.80	49.76	51.64	53.56	55.67	58.21	61.86	64.98

+ 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

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Station: PLYMOUTH 5 E, NC

COOP ID: 316853

Climate Division: NC 8

NWS Call Sign:

Elevation: 20 Feet

Lat: 35° 52N

Lon: 76° 39W

Snow (inches)																							
Snow Totals															Mean Number of Days (1)								
Means/Medians (1)					Extremes (2)										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	.8	.0	#	0	4.8	1973	8	7.5	1980	5	1973	8	1	1973	.2	.2	.1	.0	.0	.4	.2	@	.0
Feb	1.9	.0	#	0	10.5	1980	6	11.5	1980	12	1980	6	2	1980	.5	.5	.2	.1	@	.2	.2	.1	.0
Mar	1.0	.0	#	0	6.5	1980	2	15.0	1980	15	1980	3	1	1980	.3	.3	.1	.1	.0	@	.0	.0	.0
Apr	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.3	.0	#	0	6.0	1989	24	6.0	1989	6	1989	24	1	2000	.1	.1	@	@	.0	.1	@	@	.0
Ann	4.0	.0	N/A	N/A	10.5	Feb 1980	6	15.0	Mar 1980	15	Mar 1980	3	2	Feb 1980	1.1	1.1	.4	.2	@	.7	.4	.1	.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

Complete documentation available from:

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**NWS Call Sign:**

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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	5/07	5/03	4/29	4/26	4/23	4/21	4/18	4/14	4/09
32	4/22	4/17	4/13	4/10	4/07	4/04	4/01	3/28	3/23
28	4/11	4/04	3/30	3/26	3/22	3/18	3/13	3/08	3/01
24	3/22	3/15	3/11	3/07	3/04	2/28	2/24	2/20	2/14
20	3/10	3/02	2/24	2/19	2/15	2/10	2/05	1/31	1/23
16	2/19	2/11	2/05	1/30	1/24	1/18	1/08	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	10/08	10/13	10/17	10/20	10/23	10/26	10/29	11/02	11/07
32	10/14	10/20	10/24	10/28	10/31	11/04	11/07	11/11	11/17
28	10/28	11/04	11/08	11/12	11/16	11/20	11/24	11/28	12/05
24	11/10	11/18	11/23	11/28	12/03	12/07	12/12	12/18	12/25
20	11/22	12/02	12/10	12/17	12/23	12/29	1/04	1/12	1/22
16	12/17	12/25	1/01	1/06	1/12	1/19	1/29	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	205	197	191	187	182	178	173	167	159
32	230	222	216	211	207	202	197	191	183
28	272	261	252	245	239	232	225	217	206
24	301	291	284	279	273	268	262	255	246
20	347	330	320	313	306	299	293	285	274
16	>365	>365	>365	>365	360	345	335	325	313

\* 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/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

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No. 20  
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**COOP ID: 316853**

**Climate Division: NC 8      NWS Call Sign:      Elevation: 20 Feet      Lat: 35°52N      Lon: 76°39W**

Degree Days to Selected Base Temperatures (°F)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	664	532	378	150	27	1	0	0	4	141	333	569	2799
60	522	403	240	62	4	0	0	0	0	68	210	426	1935
57	438	328	171	30	1	0	0	0	0	39	151	344	1502
55	385	281	133	16	0	0	0	0	0	25	117	294	1251
50	268	182	61	2	0	0	0	0	0	7	53	189	762
32	30	12	0	0	0	0	0	0	0	0	0	11	53

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	389	404	650	867	1141	1320	1483	1430	1232	954	669	467	11006
55	31	29	70	193	428	630	770	717	542	266	96	37	3809
57	22	20	46	147	366	570	708	655	482	217	70	25	3328
60	13	11	22	89	277	480	615	562	392	154	39	14	2668
65	0	0	5	27	145	331	460	407	246	72	12	2	1707
70	0	0	0	4	54	190	305	253	116	24	2	0	948

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	181	221	395	620	885	1071	1225	1178	993	702	432	242	181	402	797	1417	2302	3373	4598	5776	6769	7471	7903	8145
45	98	128	265	470	730	921	1070	1023	843	547	298	142	98	226	491	961	1691	2612	3682	4705	5548	6095	6393	6535
50	46	70	156	326	575	771	915	868	693	395	187	76	46	116	272	598	1173	1944	2859	3727	4420	4815	5002	5078
55	19	32	84	203	421	621	760	713	543	261	100	35	19	51	135	338	759	1380	2140	2853	3396	3657	3757	3792
60	1	10	36	109	275	471	605	558	393	143	43	10	1	11	47	156	431	902	1507	2065	2458	2601	2644	2654
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	115	149	257	398	578	727	847	817	675	449	268	147	115	264	521	919	1497	2224	3071	3888	4563	5012	5280	5427

(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/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/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.  
Complete documentation for the 1971-2000 Normals is available on the internet from:  
[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/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 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.

- |   |   |
|---|---|
| <ol style="list-style-type: none"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
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## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)