

Climatology of the United States

No. 20

1971-2000

Station: TOMS RIVER, NJ

COOP ID: 288816

Climate Division: NJ 2

NWS Call Sign:

Elevation: 100 Feet Lat: 39° 57N Lon: 74° 13W

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	40.6	21.8	31.2	72	1995	14	40.6	1998	-19	1982	17	19.8	1977	1049	0	.0	.0	7.3	6.0	27.0	1.0
Feb	42.8	23.1	33.0	75	1985	24	40.1	1998	-14	1961	2	21.9	1979	898	0	.0	.0	8.0	4.4	23.4	.5
Mar	51.2	30.5	40.9	87	1990	17	45.7	2000	3	1993	15	34.8	1984	748	0	.0	.0	17.8	.5	18.5	.0
Apr	61.4	38.2	49.8	93+	1960	25	53.8	1994	12+	1982	5	45.0	1975	457	0	.0	.3	27.1	.0	7.7	.0
May	71.9	48.2	60.1	99	1996	21	65.7	1991	26	1966	5	56.7	1971	177	24	.0	1.2	30.9	.0	.3	.0
Jun	81.0	57.3	69.2	102	1994	20	72.3	1994	39+	1966	3	66.0+	1992	21	146	.1	4.6	30.0	.0	.0	.0
Jul	86.1	63.8	75.0	105	1999	19	78.8	1999	43	1966	18	70.9	2000	0	309	.6	9.7	31.0	.0	.0	.0
Aug	84.2	63.3	73.8	102	2001	10	76.6	1988	38	1965	31	70.6	1994	0	271	.1	6.3	31.0	.0	.0	.0
Sep	77.7	56.4	67.1	99	1983	12	70.1	1971	31	1963	25	64.0	1988	34	95	.0	2.0	30.0	.0	.0	.0
Oct	66.9	43.9	55.4	91	1997	7	61.2	1971	19	1969	24	50.0	1988	312	13	.0	.1	30.6	.0	4.8	.0
Nov	56.5	35.1	45.8	85	1982	3	51.0	1999	9	1989	25	39.3	1976	576	0	.0	.0	23.4	.1	15.1	.0
Dec	45.5	26.3	35.9	76	1984	30	41.5	1998	-3	1989	24	21.4	1989	901	0	.0	.0	11.8	2.7	23.9	.2
Ann	63.8	42.3	53.1	105	Jul 1999	19	78.8	Jul 1999	-19	Jan 1982	17	19.8	Jan 1977	5173	858	.8	24.2	278.9	13.7	120.7	1.7

+ 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

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

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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: TOMS RIVER, NJ

COOP ID: 288816

Climate Division: NJ 2

NWS Call Sign:

Elevation: 100 Feet Lat: 39°57N

Lon: 74°13W

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	4.22	3.66	3.36	1999	4	9.65	1999	.48	1981	9.8	7.4	3.0	1.1	1.00	1.39	2.01	2.56	3.11	3.69	4.34	5.12	6.14	7.75	9.27
Feb	3.35	2.93	3.32	1998	23	7.15	1998	.32	1987	8.8	6.0	2.3	.9	.92	1.24	1.72	2.14	2.56	2.99	3.47	4.03	4.77	5.93	7.01
Mar	4.34	3.88	3.35	1984	14	8.73	1994	1.27	1981	10.1	7.0	3.5	1.1	1.41	1.82	2.43	2.94	3.44	3.96	4.52	5.18	6.03	7.35	8.56
Apr	4.02	3.95	3.03	1970	15	8.54	1980	1.10	1985	10.6	6.9	3.0	1.1	1.26	1.65	2.21	2.70	3.17	3.65	4.18	4.81	5.61	6.87	8.03
May	4.17	3.73	4.02	1968	29	11.95	1998	1.12	1993	11.0	7.2	2.9	.9	1.17	1.57	2.17	2.69	3.20	3.73	4.32	5.01	5.92	7.33	8.65
Jun	3.52	3.54	3.40	1984	14	8.46	1981	1.02	1976	10.2	6.8	2.2	.9	1.02	1.36	1.86	2.30	2.72	3.16	3.65	4.23	4.97	6.14	7.23
Jul	4.56	4.06	7.07	1991	14	10.60	1991	.83	1999	9.0	6.5	3.0	1.4	1.41	1.85	2.49	3.04	3.58	4.13	4.74	5.46	6.38	7.82	9.15
Aug	5.00	4.48	6.00	1997	21	9.73	1992	1.28	1995	9.1	6.4	2.9	1.7	1.71	2.19	2.87	3.46	4.01	4.59	5.22	5.95	6.88	8.34	9.67
Sep	3.95	3.64	6.21	1984	15	8.18	1984	1.19	1976	8.2	5.8	2.4	1.1	1.21	1.59	2.15	2.62	3.09	3.57	4.10	4.73	5.53	6.79	7.95
Oct	3.55	3.71	4.40	1972	7	8.14	1972	.52	1994	8.2	5.8	2.1	1.1	.94	1.27	1.79	2.24	2.69	3.15	3.67	4.29	5.09	6.35	7.53
Nov	4.05	3.78	4.30	1977	8	9.77	1977	.60	1976	9.4	6.4	2.9	1.4	.82	1.19	1.78	2.32	2.87	3.46	4.12	4.92	5.98	7.67	9.28
Dec	4.08	3.15	3.70	1992	11	8.71	1996	.36	1989	9.7	7.3	2.8	1.3	.99	1.38	1.97	2.50	3.02	3.58	4.20	4.94	5.90	7.43	8.86
Ann	48.81	48.94	7.07	Jul 1991	14	11.95	May 1998	.32	Feb 1987	114.1	79.5	33.0	14.0	36.50	38.93	42.01	44.33	46.38	48.36	50.39	52.62	55.31	59.20	62.54

+ 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:
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1971-2000

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Station: TOMS RIVER, NJ

COOP ID: 288816

Climate Division: NJ 2

NWS Call Sign:

Elevation: 100 Feet

Lat: 39°57N

Lon: 74°13W

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	2.0	1.5	#	0	3.0	1976	21	8.0	1976	3+	1976	21	#+	1976	.8	.5	.1	.0	.0	.6	.1	.0	.0
Feb	4.5	2.1	#	0	15.0	1978	7	20.0	1978	8	1974	9	3	1986	.8	.7	.3	.2	.1	1.1	.4	.1	.0
Mar	.7	.0	#	0	6.0	1976	10	8.0	1976	6	1976	10	1	1976	.1	.1	.1	.1	.0	.0	.0	.0	.0
Apr	.0	.0	#	0	.2	1974	10	.2	1974	#+	1983	20	#+	1983	.1	.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	#	1996	14	#+	1996	#+	1996	14	#+	1996	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.3	.0	#	0	2.3	1975	22	2.3	1975	4	1985	21	#+	1990	.1	.1	.0	.0	.0	.0	.0	.0	.0
Ann	7.5	3.6	N/A	N/A	15.0	Feb 1978	7	20.0	Feb 1978	8	Feb 1974	9	3	Feb 1986	1.9	1.4	.5	.3	.1	1.7	.5	.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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Climate Division: NJ 2

NWS Call Sign:

Elevation: 100 Feet

Lat: 39° 57N

Lon: 74° 13W

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	5/21	5/17	5/14	5/11	5/08	5/06	5/03	4/30	4/25
32	5/07	5/03	4/30	4/28	4/25	4/23	4/21	4/18	4/14
28	4/27	4/23	4/20	4/17	4/15	4/12	4/09	4/06	4/02
24	4/13	4/08	4/04	3/31	3/28	3/25	3/21	3/17	3/11
20	4/01	3/27	3/23	3/21	3/18	3/15	3/12	3/09	3/04
16	3/26	3/20	3/16	3/13	3/09	3/06	3/02	2/26	2/20
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	9/24	9/28	10/01	10/04	10/06	10/09	10/12	10/15	10/19
32	10/05	10/09	10/12	10/15	10/18	10/20	10/23	10/26	10/30
28	10/16	10/21	10/25	10/28	10/31	11/03	11/06	11/10	11/15
24	10/26	11/01	11/06	11/09	11/13	11/17	11/20	11/25	12/01
20	11/14	11/20	11/24	11/27	11/30	12/04	12/07	12/11	12/17
16	11/23	11/30	12/05	12/09	12/14	12/18	12/22	12/27	1/03
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	170	163	158	154	150	146	142	137	131
32	194	187	182	178	174	171	167	162	155
28	217	211	206	202	199	195	191	187	181
24	253	245	239	234	229	225	220	214	206
20	275	269	264	260	257	253	249	245	239
16	307	297	290	284	279	273	267	260	250

* 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:

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Climate Division: NJ 2 NWS Call Sign: Elevation: 100 Feet Lat: 39°57N Lon: 74°13W

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	1049	898	748	457	177	21	0	0	34	312	576	901	5173
60	894	758	593	310	78	3	0	0	7	189	428	746	4006
57	801	674	500	227	41	0	0	0	2	131	342	653	3371
55	739	618	439	177	24	0	0	0	1	99	289	597	2983
50	593	485	294	78	4	0	0	0	0	42	170	454	2120
32	167	111	17	0	0	0	0	0	0	0	4	96	395

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	142	137	291	533	870	1115	1332	1294	1051	724	418	218	8125
55	0	0	0	20	180	425	619	581	361	111	13	6	2316
57	0	0	0	10	135	365	557	519	303	80	6	0	1975
60	0	0	0	3	80	277	464	426	217	46	2	0	1515
65	0	0	0	0	24	146	309	271	95	13	0	0	858
70	0	0	0	0	4	54	165	132	21	2	0	0	378

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	34	42	133	324	644	893	1087	1031	790	467	217	68	34	76	209	533	1177	2070	3157	4188	4978	5445	5662	5730
45	13	18	66	196	489	743	932	876	640	319	120	30	13	31	97	293	782	1525	2457	3333	3973	4292	4412	4442
50	2	4	30	105	335	593	777	721	490	190	59	8	2	6	36	141	476	1069	1846	2567	3057	3247	3306	3314
55	0	0	9	47	203	443	622	566	342	92	26	2	0	0	9	56	259	702	1324	1890	2232	2324	2350	2352
60	0	0	3	16	101	295	468	411	210	38	6	0	0	0	3	19	120	415	883	1294	1504	1542	1548	1548
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	27	35	88	199	388	581	736	698	509	296	139	44	27	62	150	349	737	1318	2054	2752	3261	3557	3696	3740

(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.
Complete documentation for the 1971-2000 Normals is available on the internet from:
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">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/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