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: LONG BRANCH OAKHURST, NJ 1971-2000 COOP ID: 284987

Climate Division: NJ 3 NWS Call Sign: Elevation: 30 Feet Lat: 40°16N Lon: 74°00W

									r	Гетр	eratur	re (°F)									
	Mea	n (1)						Extr	emes					Degree Base To	Days (1) emp 65		Mean	Numb	er of I	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	22.8	31.7	76	1950	26	41.3	1998	-8	1984	22	20.6	1977	1032	0	.0	.0	6.0	6.9	25.1	.6
Feb	42.4	24.4	33.4	78	1985	25	40.3	1997	-12	1934	9	21.2	1979	885	0	.0	.0	7.0	4.9	21.6	.3
Mar	49.5	32.1	40.8	87	1945	29	46.0	2000	4	1984	10	33.9	1984	750	0	.0	.0	14.6	.8	15.6	.0
Apr	58.6	40.1	49.4	92	1929	8	53.0	1974	17	1985	11	46.0	1975	469	0	.0	.0	25.7	@	4.1	.0
May	67.9	50.2	59.1	94+	1942	30	64.3	1991	29	1978	1	55.7	1978	200	15	.0	.6	30.9	.0	.1	.0
Jun	77.1	60.0	68.6	99+	1934	29	71.3+	1989	37	1938	1	65.3	1972	26	132	.0	1.9	30.0	.0	.0	.0
Jul	82.6	65.5	74.1	106	1936	9	78.5	1999	46+	1979	6	70.5	2000	0	280	.1	4.8	31.0	.0	.0	.0
Aug	81.0	64.0	72.5	101+	1948	26	76.6	1988	43	1976	31	69.8	1992	2	236	@	2.3	31.0	.0	.0	.0
Sep	75.1	56.9	66.0	98	1983	12	68.7	2000	32	1983	25	62.6	1982	50	79	.0	.8	30.0	.0	@	.0
Oct	64.7	45.4	55.1	95	1941	5	60.6	1971	24	1983	31	51.4	1976	317	8	.0	.0	30.4	.0	1.8	.0
Nov	55.4	36.7	46.1	83+	1950	1	51.6	1985	13+	1929	30	39.6	1976	569	0	.0	.0	22.1	.1	10.0	.0
Dec	45.7	28.3	37.0	74	1984	30	42.6	1998	-2	1980	26	26.8	1989	868	0	.0	.0	10.4	2.7	21.6	.1
Ann	61.7	43.9	52.8	106	Jul 1936	9	78.5	Jul 1999	-12	Feb 1934	9	20.6	Jan 1977	5168	750	.1	10.4	269.1	15.4	99.9	1.0

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 017-A

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

⁽¹⁾ From the 1971-2000 Monthly Normals

⁽²⁾ Derived from station's available digital record: 1928-2001

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

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Climate Division: NJ 3 NWS Call Sign: Elevation: 30 Feet Lat: 40°16N Lon: 74°00W

										Pı	ecipi	tation	(incl	nes)										
		ans/	P	recipi	itatio	on Total					of D	Number (3))	Proba			nonthly/ onthly/Ar	annual j indic	ated am	ntion wi nount vs Probal	ll be equ	els		in the
	Medi	/													Th	ese value	s were det	ermined	from the i	incomplet	e gamma	distributi	on	
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	4.12	3.87	4.00	1991	12	9.00	1979	.41	1981	9.9	6.8	2.7	.9	1.06	1.45	2.04	2.57	3.09	3.64	4.25	4.97	5.92	7.41	8.80
Feb	3.30	3.02	3.41	1951	21	6.36	1998	1.13	1980	8.9	6.0	2.4	.9	1.43	1.73	2.14	2.48	2.80	3.12	3.46	3.86	4.36	5.12	5.81
Mar	4.16	4.01	2.95	1998	9	8.48	1983	1.51	1985	9.7	7.3	3.2	.9	1.64	2.02	2.57	3.02	3.45	3.88	4.36	4.90	5.59	6.65	7.62
Apr	4.17	4.17 4.45 2.93 1998 10 9.81 1983 1.09 1							1995	10.3	6.4	2.9	1.3	1.27	1.67	2.26	2.77	3.26	3.78	4.34	5.00	5.86	7.20	8.43
May	4.46	4.00	2.98	1984	30	9.72	1990	.91	1977	11.0	7.4	2.9	1.2	1.23	1.65	2.29	2.85	3.40	3.98	4.61	5.37	6.34	7.88	9.31
Jun	3.25	3.20	3.75	1938	27	6.77	1975	.97	1988	10.2	6.1	2.4	.8	1.05	1.36	1.81	2.20	2.57	2.96	3.38	3.88	4.52	5.51	6.42
Jul	4.47	4.33	6.08	1938	20	10.69	1984	1.05	1999	9.1	6.5	3.0	1.4	1.39	1.82	2.45	2.99	3.51	4.06	4.65	5.35	6.25	7.66	8.96
Aug	5.04	4.88	4.78	1992	18	11.80	1992	1.29	1995	9.2	6.8	3.0	1.5	1.23	1.70	2.44	3.09	3.74	4.43	5.19	6.10	7.30	9.19	10.97
Sep	4.01	3.51	4.94	1944	14	10.55	1999	1.28	1976	7.9	5.8	3.0	1.1	1.37	1.75	2.31	2.77	3.22	3.68	4.18	4.77	5.52	6.68	7.75
Oct	3.78	3.45	4.81	1943	26	7.20	1995	.79	1994	8.2	5.6	2.2	1.0	1.07	1.43	1.97	2.44	2.90	3.38	3.92	4.54	5.36	6.63	7.82
Nov	3.97	3.38	3.70	1977	8	9.94	1972	.44	1976	9.2	6.3	2.8	1.2	.89	1.26	1.84	2.36	2.89	3.44	4.07	4.81	5.79	7.36	8.83
Dec	3.90	3.23	6.65	1974	16	10.49	1974	.31	1989	9.1	6.5	2.6	1.2	.88	1.24	1.81	2.33	2.84	3.39	4.00	4.74	5.70	7.24	8.69
Ann	48.63	47.76	6.65	Dec 1974	16	11.80	Aug 1992	.31	Dec 1989	112.7	77.5	33.1	13.4	35.76	38.29	41.50	43.92	46.07	48.14	50.27	52.62	55.46	59.56	63.10

⁺ 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: 1928-2001

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COOP ID: 284987

Station: LONG BRANCH OAKHURST, NJ

Climate Division: NJ 3 NWS Call Sign: Elevation: 30 Feet Lat: 40°16N Lon: 74°00W

		Tu Tu Daily Monthly Daily																					
			S/Medians (1) Extremes (2) Snow Snow Snow Highest Highest Monthly														Mea	n Nu	mber	of Da	ys (1)		
	Mean	s/Medi	ans (1)	1					Extre	mes (2)							ow Fa					Depth esholo	
Month	Snow Fall Mean	Fall	Depth	Depth	Daily Snow	Year	Day	Monthly Snow	Year	Daily Snow	Year	Day	Monthly Mean Snow	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	5.0	4.5	1	#	7.0	1977	15	12.0	1977	23	1996	8	4	1977	2.2	1.4	.8	.1	.0	2.8	1.1	.4	.0
Feb	4.8	.9	1	#	12.0	1983	12	19.2	1974	21	1979	20	7	1978	1.8	1.1	.4	.3	.1	2.7	2.1	1.5	.5
Mar	1.9	.2	#	#	6.0	1978	4	10.1	1978	9	1978	5	3	1978	.9	.5	.2	.1	.0	1.0	.7	.3	.0
Apr	.3	.0	#	0	5.2	1982	7	5.2	1982	4	1982	7	#+	1996	.2	.1	.1	.1	.0	@	@	.0	.0
May	#	.0	0	0	#	1977	9	#	1977	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	#	1979	11	#	1979	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.1	.0	#	0	2.0	1995	29	2.0	1995	#+	1978	27	#+	1978	.1	.1	.0	.0	.0	.0	.0	.0	.0
Dec	1.4	.2	#	#	6.0	1982	12	6.0	1982	6	1982	13	1+	1995	.7	.5	.1	.1	.0	.7	.2	.1	.0
Ann	13.5	5.8	N/A	N/A	12.0	Feb 1983	12	19.2	Feb 1974	23	Jan 1996	8	7	Feb 1978	5.9	3.7	1.6	.7	.1	7.2	4.1	2.3	.5

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

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

[@] 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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Elevation:

30 Feet

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COOP ID: 284987

Lon: 74°00W

Lat: 40°16N

Station: LONG BRANCH OAKHURST, NJ

Climate Division: NJ 3 NWS Call Sign:

				Freez	e Data							
			Spri	ng Freeze D	ates (Month/	Day)						
Freeze Data Spring Freeze Dates (Month/Day)												
Temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90			
36	5/14	5/09	5/05	5/02	4/29	4/26	4/22	4/19	4/14			
32	5/02	4/26	4/22	4/19	4/16	4/13	4/09	4/05	3/31			
28	4/18	4/12	4/08	4/04	4/01	3/28	3/25	3/20	3/15			
24	4/05	3/31	3/27	3/24	3/22	3/19	3/16	3/12	3/08			
20	3/30	3/23	3/19	3/15	3/12	3/08	3/04	2/28	2/22			
16	3/18	3/09	3/03	2/26	2/22	2/17	2/11	2/05	1/26			
<u>"</u>			Fal	l Freeze Da	tes (Month/D	ay)	1	•	•			
To (E)		Pro	bability of ea	rlier date i	n fall (beginn	ing Aug 1) t	han indicate	d(*)				
remb (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90			
36	10/02	10/07	10/11	10/15	10/18	10/21	10/24	10/28	11/03			
32	10/12	10/17	10/21	10/24	10/27	10/30	11/02	11/05	11/10			
28	10/23	10/28	11/01	11/05	11/08	11/11	11/15	11/18	11/24			
24	11/08	11/14	11/18	11/22	11/25	11/29	12/03	12/07	12/13			
20	11/17	11/24	11/29	12/03	12/07	12/11	12/15	12/20	12/27			
16	12/07	12/12	12/16	12/20	12/23	12/27	12/30	1/04	1/10			
<u>"</u>		J		Freeze F	ree Period		1		II.			
Tomp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)					
remb (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90			
36	198	189	182	177	171	166	161	154	145			
32	219	210	203	198	193	188	182	176	167			
28	247	238	231	226	221	215	210	203	194			
24	269	262	256	252	248	244	240	234	227			
20	297	287	281	275	270	264	258	252	243			
		319	1	307	303	298	293	288	280			

^{*} 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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				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1032	885	750	469	200	26	0	2	50	317	569	868	5168
60	877	745	595	320	91	4	0	0	11	189	420	713	3965
57	784	661	502	235	47	1	0	0	4	128	334	620	3316
55	722	605	440	183	28	0	0	0	2	95	280	560	2915
50	581	473	297	79	4	0	0	0	0	37	160	418	2049
32	175	108	18	0	0	0	0	0	0	0	2	71	374

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	166	147	291	521	838	1096	1302	1257	1020	715	423	225	8001
55	1	0	0	14	153	406	589	544	331	96	11	2	2147
57	0	0	0	6	110	346	527	482	274	67	5	0	1817
60	0	0	0	1	61	259	434	389	191	36	1	0	1372
65	0	0	0	0	15	132	280	236	79	8	0	0	750
70	0	0	0	0	2	45	137	104	18	1	0	0	307

										Gro	wing 1	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (M	Ionthly)								Growi	ng Degre	ee Units (Accumu	lated Mo	onthly)			
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov D												Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40													39	90	208	509	1106	1961	3021	4041	4831	5308	5535	5605
45												32	14	31	87	261	703	1408	2313	3178	3818	4145	4273	4305
50												4	1	6	27	110	399	954	1704	2414	2904	3099	3161	3165
55	0	0	7	33	161	407	595	555	343	96	24	0	0	0	7	40	201	608	1203	1758	2101	2197	2221	2221
60	0	0	2	11	79	264	440	400	211	35	5	0	0	0	2	13	92	356	796	1196	1407	1442	1447	1447
Base	ase Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)			
50/86	50/86 24 28 63 156 329 554 733 701 504 265 118 34												24	52	115	271	600	1154	1887	2588	3092	3357	3475	3509

(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