Climatography of the United States No. 20

National Climatic Data Center Federal Building 151 Patton Avenue Asheville, North Carolina 28801 www.ncdc.noaa.gov

COOP ID: 179151

Station: WATERVILLE TREATMENT PLT, ME

1971-2000

Climate Division: ME 2 NWS Call Sign: Elevation: 73 Feet Lat: 44°32N Lon: 69°39W

									ŗ	Temp	eratui	re (°F)									
	Mea	n (1)						Extr	emes						Days (1) emp 65		Mean	Numb	er of I	Days (3)	
Month	Daily Max	Daily Min	Mean	Highest Daily(2)	Daily(2) Year Day Monm(1) Year Daily(Year	Day	Lowest Month(1) Mean	Year	Heating	Cooling	Max >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0
Jan	28.3	5.2	16.8	57+	1990	18	25.0	1990	-32+	1994	21	6.7	1994	1497	0	.0	.0	.9	17.3	30.6	10.1
Feb	31.6	7.2	19.4	61+	1981	18	27.8	1998	-31	1962	2	10.3	1993	1278	0	.0	.0	1.4	11.1	27.1	6.9
Mar	41.1	19.3	30.2	75+	1981	29	36.9	1977	-17	1982	1	24.0	1984	1079	0	.0	.0	7.4	4.0	27.1	1.5
Apr	53.1	30.8	42.0	91	1990	27	45.9	1986	8	1992	15	38.2	1972	690	0	.0	@	21.6	.2	17.1	.0
May	66.4	41.9	54.2	98	1977	22	59.1	1998	21+	1985	9	49.4	1974	342	4	.0	.5	30.4	.0	3.1	.0
Jun	75.3	51.6	63.5	96+	1995	20	68.3	1999	34	1967	1	59.8	1982	91	44	.0	1.6	30.0	.0	.0	.0
Jul	80.7	57.2	69.0	96+	1999	18	72.6	1994	39	1991	1	64.8	1992	15	137	.0	3.2	31.0	.0	.0	.0
Aug	78.8	55.3	67.1	101+	1975	2	71.2	1973	35	1982	30	63.9	1982	32	95	.1	2.1	31.0	.0	.0	.0
Sep	70.3	46.9	58.6	95+	1999	4	65.2	1999	23	1980	29	55.8	1978	204	11	.0	.3	30.0	.0	1.0	.0
Oct	58.5	35.1	46.8	84+	1990	8	53.0	1971	17	1972	21	42.0	1980	564	0	.0	.0	27.3	.0	10.6	.0
Nov	45.5	26.2	35.9	73	1990	3	41.0	1999	-1	1989	24	32.0	1986	874	0	.0	.0	10.7	1.5	21.2	@
Dec	33.5	13.4	23.5	67	1982	4	31.7	1996	-27	1980	26	7.3	1989	1287	0	.0	.0	1.9	11.5	29.6	4.2
Ann	55.3	32.5	43.9	101+	Aug 1975	2	72.6	Jul 1994	-32+	Jan 1994	21	6.7	Jan 1994	7953	291	.1	7.7	223.6	45.6	167.4	22.7

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 033-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: 1958-2001

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

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COOP ID: 179151

Climate Division: ME 2 NWS Call Sign: Elevation: 73 Feet Lat: 44°32N Lon: 69°39W

										Pı	recipi	tation	(incl	nes)										
			P	recip	itatio	on Total	S			M	ean N	Numbo Pays (3		Proba	ability tl	nat the r	nonthly/	annual j	precipita ated an	nount	ll be equ		less tha	ın the
		ans/				Extremes	3			D	aily Pre	cipitatio	n		Th	M ese value	•		•	vs Probal incomplet	•		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	3.33	3.23	2.30	1990	30	9.17	1979	.63	1980	10.2	6.8	2.4	.7	.78	1.09	1.58	2.01	2.44	2.90	3.42	4.03	4.84	6.11	7.32
Feb	2.41	2.35	2.12	1996	22	5.50	1971	.18	1991	7.6	5.3	1.5	.4	.53	.75	1.10	1.42	1.74	2.09	2.47	2.93	3.54	4.50	5.41
Mar	3.63	3.52	3.23	1972	23	7.38	1972	.09	1988	9.8	6.5	2.4	.8	.99	1.33	1.86	2.32	2.77	3.24	3.76	4.38	5.19	6.45	7.63
Apr	3.39	3.09	3.30	1983	25	9.34	1983	.62	1999	10.4	6.9	2.3	.7	.95	1.27	1.76	2.18	2.60	3.03	3.52	4.08	4.82	5.99	7.07
May	3.70	3.40	2.40	1984	31	9.88	1984	.49	1992	11.6	7.3	2.7	.9	.90	1.25	1.79	2.27	2.74	3.24	3.80	4.47	5.35	6.73	8.03
Jun	3.76	3.56	2.74	1972	1	8.00	1984	.64	1979	11.4	7.3	2.5	.8	1.23	1.59	2.11	2.56	2.99	3.43	3.92	4.49	5.22	6.36	7.41
Jul	3.59	3.89	3.20	1990	23	8.95	1976	.52	1989	10.5	7.1	2.2	.8	.92	1.26	1.78	2.24	2.70	3.18	3.71	4.34	5.16	6.46	7.68
Aug	3.37	3.31	3.10	1990	11	7.25	1991	.34	1995	9.8	6.3	2.1	.6	.91	1.23	1.71	2.14	2.56	3.00	3.48	4.06	4.81	5.99	7.09
Sep	3.78	3.51	5.68	1999	17	11.23	1999	.83	1988	9.7	6.2	2.6	.8	1.17	1.53	2.06	2.52	2.96	3.43	3.93	4.53	5.30	6.49	7.60
Oct	3.90	3.52	2.80	1990	24	8.06	1981	1.03	1986	9.8	6.6	2.7	1.2	1.23	1.60	2.15	2.62	3.07	3.54	4.06	4.66	5.44	6.66	7.78
Nov	3.59	3.39	3.78	1966	3	6.45	1983	1.61	1996	10.3	6.9	2.6	.9	1.81	2.11	2.52	2.84	3.14	3.44	3.76	4.12	4.57	5.25	5.85
Dec	3.19	2.69	3.92	1969	27	10.73	1973	.28	1989	9.9	6.6	2.5	.7	.56	.84	1.31	1.74	2.19	2.67	3.22	3.89	4.77	6.20	7.57
Ann	41.64	41.26	5.68	Sep 1999	17	11.23	Sep 1999	.09	Mar 1988	121.0	79.8	28.5	9.3	28.96	31.40	34.52	36.90	39.02	41.07	43.20	45.55	48.41	52.57	56.17

⁺ 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: 1958-2001

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COOP ID: 179151

Station: WATERVILLE TREATMENT PLT, ME

Climate Division: ME 2 NWS Call Sign: Elevation: 73 Feet Lat: 44°32N Lon: 69°39W

		Snow (inches) Snow Totals Ins/Medians (1) Extremes (2) Highest Highest Monthly																					
		Snow Fall Median Snow Depth Median Median Median Median Median Snow Fall Snow Snow Fall Snow Snow Fall Snow Depth Snow Depth															Mea	n Nu	mber	of Day	ys (1)		
	Mean	s/Medi	ians (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	17.4	14.5	9	8	10.0	1973	29	36.6	1994	26	1977	11	20	1977	5.4	4.2	2.2	1.1	.2	23.8	20.9	18.3	12.9
Feb	11.7	11.3	8	6	13.0	1995	5	21.0	1971	34	1971	24	25	1971	4.1	3.1	1.5	.5	@	23.0	19.1	14.5	7.8
Mar	11.2	10.0	5	3	13.5	1993	14	26.7	1999	32	1971	11	21	1971	3.2	2.5	1.2	.6	.1	13.8	10.9	8.6	5.5
Apr	2.5	.1	#	#	12.0	1982	7	12.0+	1982	12	1982	7	2	1975	.8	.7	.4	.1	@	1.3	.6	.3	.2
May	#	.0	0	0	#	1978	2	#	1978	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	.2	.0	#	0	3.0	2000	30	4.0	2000	4	2000	30	#+	2000	.1	.1	@	.0	.0	.1	@	.0	.0
Nov	3.4	2.2	#	#	8.2	1989	21	12.0	1987	9	1980	19	2	1989	1.0	.8	.3	.2	.0	2.4	1.0	.6	.0
Dec	15.2	15.0	4	3	11.0	1975	27	32.5	1981	20	1972	31	11	1995	4.7	4.0	2.4	1.1	.1	16.1	12.5	8.2	3.1
Ann	61.6	53.1	N/A	N/A	13.5	Mar 1993	14	36.6	Jan 1994	34	Feb 1971	24	25	Feb 1971	19.3	15.4	8.0	3.6	.4	80.5	65.0	50.5	29.5

⁺ 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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				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((*)	
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/07	6/02	5/29	5/26	5/24	5/21	5/18	5/14	5/09
32	5/21	5/17	5/15	5/13	5/11	5/09	5/07	5/04	5/01
28	5/09	5/05	5/02	4/30	4/28	4/26	4/24	4/21	4/17
24	5/02	4/26	4/22	4/19	4/16	4/13	4/09	4/05	3/31
20	4/17	4/13	4/10	4/07	4/05	4/02	3/31	3/28	3/23
16	4/11	4/07	4/03	3/31	3/29	3/26	3/23	3/20	3/15
		•	Fal	l Freeze Da	tes (Month/D	ay)		•	
Tomp (F)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	ed(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/09	9/13	9/16	9/19	9/21	9/23	9/26	9/29	10/03
32	9/19	9/23	9/26	9/29	10/01	10/03	10/06	10/08	10/12
28	10/02	10/06	10/09	10/11	10/14	10/16	10/18	10/21	10/25
24	10/08	10/14	10/19	10/22	10/26	10/29	11/02	11/07	11/13
20	10/23	10/29	11/02	11/06	11/09	11/13	11/16	11/20	11/26
16	11/07	11/12	11/16	11/19	11/22	11/25	11/28	12/01	12/06
•			•	Freeze F	ree Period		•	•	1
Tomp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	138	132	127	123	120	116	112	107	101
32	159	153	149	146	142	139	136	131	126
28	185	179	175	171	168	164	160	156	150
24	219	210	203	198	193	187	182	175	166
20	241	233	227	223	218	213	208	203	195
16	259	251	246	241	237	233	228	223	215

^{*} 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.

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Climate Division: ME 2 NWS Call Sign: Elevation: 73 Feet Lat: 44°32N Lon: 69°39W

				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	1497	1278	1079	690	342	91	15	32	204	564	874	1287	7953
60	1342	1138	924	540	206	27	1	3	96	412	724	1132	6545
57	1249	1054	831	451	139	9	0	0	53	324	634	1039	5783
55	1187	998	769	391	101	4	0	0	33	269	574	977	5303
50	1032	858	614	249	37	0	0	0	7	150	424	822	4193
32	487	368	137	4	0	0	0	0	0	1	46	327	1370

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	14	15	80	304	686	944	1145	1087	797	460	162	62	5756
55	0	0	0	1	74	258	432	374	141	15	0	0	1295
57	0	0	0	0	49	203	370	312	100	8	0	0	1042
60	0	0	0	0	23	130	278	222	53	2	0	0	708
65	0	0	0	0	4	44	137	95	11	0	0	0	291
70	0	0	0	0	0	7	44	23	1	0	0	0	75

										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 De													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	1	0	26	149	484	740	928	878	586	276	70	3	1	1	27	176	660	1400	2328	3206	3792	4068	4138	4141
45												0	0	0	6	77	409	999	1772	2495	2931	3086	3112	3112
50												0	0	0	1	25	218	658	1276	1844	2136	2209	2216	2216
55	0	0	0	10	98	290	463	415	169	25	0	0	0	0	0	10	108	398	861	1276	1445	1470	1470	1470
60	0	0	0	1	38	165	308	264	81	5	0	0	0	0	0	1	39	204	512	776	857	862	862	862
Base	Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)			
50/86	50/86 0 0 25 115 301 469 611 571 363 171 40 0												0	0	25	140	441	910	1521	2092	2455	2626	2666	2666

(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