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: 177037

Station: RANGELEY, ME

Climate Division: ME 1

NWS Call Sign:

Elevation: 1,530 Feet Lat: 44°58N Lon: 70°39W

									ŗ	Temp	eratui	re (°F)										
	Mea	n (1)						Extr	emes						Days (1) emp 65		Mean	Numb	nber of Days (3)			
Month	Daily Max	Min Mean Daily(2) Year		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	22.1	-3.3	9.4	56	1995	16	18.9	1990	-45	1994	20	.6	1994	1724	0	.0	.0	.3	24.5	30.8	18.2	
Feb	26.1	-2.9	11.6	60	2000	28	22.5	1984	-38+	1993	7	1.2	1979	1496	0	.0	.0	.6	19.7	28.0	17.2	
Mar	35.9	9.4	22.7	71	1998	29	30.3	1973	-36	1982	1	16.0	1984	1314	0	.0	.0	3.3	11.2	30.0	8.9	
Apr	47.4	24.7	36.1	85	1990	28	43.2	1986	-9	1977	10	30.6	1975	868	0	.0	.0	11.7	1.9	25.2	.4	
May	62.3	36.8	49.6	90	1977	23	55.4	1998	18	1986	4	43.0	1997	480	1	.0	@	26.8	.1	9.9	.0	
Jun	71.3	47.0	59.2	93	1995	20	63.3	1999	28+	1980	10	54.8	1980	184	9	.0	.1	29.7	.0	.7	.0	
Jul	76.1	52.0	64.1	93	1977	21	67.3	1975	33+	1982	4	59.9	1992	74	44	.0	.4	31.0	.0	.0	.0	
Aug	74.1	50.0	62.1	93	1975	2	67.0	1973	30	1986	29	57.8	1982	121	30	.0	.1	30.9	.0	.1	.0	
Sep	65.4	42.0	53.7	89+	1999	5	59.7	1999	19	1980	29	49.2	1978	341	1	.0	.0	29.2	.0	4.2	.0	
Oct	52.8	30.9	41.9	78+	1990	8	48.1	1971	11	1972	20	36.9	1974	717	0	.0	.0	18.5	.2	18.3	.0	
Nov	39.4	21.9	30.7	69	1982	5	35.3	1999	-12+	1989	24	26.1	1980	1032	0	.0	.0	4.9	7.5	25.6	.4	
Dec	27.5	6.3	16.9	60	2001	7	25.1	1996	-33+	1989	31	.9	1989	1492	0	.0	.0	.6	20.2	30.6	10.3	
Ann	50.0	26.2	38.2	93+	Jun 1995	20	67.3	Jul 1975	-45	Jan 1994	20	.6	Jan 1994	9843	85	.0	.6	187.5	85.3	203.4	55.4	

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 028-A

- (1) From the 1971-2000 Monthly Normals
- (2) Derived from station's available digital record: 1969-2001
- (3) Derived from 1971-2000 serially complete daily data

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

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										Pı	recipi	tation	(incl	nes)										
	Ma	1	P	recip	itatio	on Total	s			M	ean N	Numbo Pays (3		Proba	ability th		nonthly/	annual j indic	precipita ated an	nount	ll be equ		· less tha	in the
		ans/ ans(1)				Extremes	5			D	aily Pre	cipitatio	n	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	3.23	3.13	2.78	1986	27	7.41	1978	.41	1985	14.3	6.4	1.9	.6	.75	1.05	1.52	1.95	2.37	2.81	3.32	3.91	4.70	5.95	7.12
Feb	2.17	2.22	1.48	1974	23	3.94	1996	.44	1987	10.6	4.9	1.2	.3	.81	1.01	1.30	1.55	1.78	2.01	2.27	2.57	2.95	3.53	4.06
Mar	3.15	3.04	2.13	1999	23	6.61	1999	.97	1988	12.7	6.5	1.8	.4	1.33	1.62	2.02	2.35	2.66	2.97	3.30	3.69	4.18	4.92	5.60
Apr	3.18	3.01	2.94	1987	1	6.05	1987	.57	1999	11.9	6.9	1.5	.4	1.23	1.53	1.95	2.29	2.63	2.96	3.33	3.75	4.28	5.10	5.85
May	3.40	3.32	1.98	1984	30	6.76	1984	.71	1992	13.5	7.3	2.1	.5	1.21	1.53	1.99	2.38	2.76	3.14	3.55	4.04	4.65	5.61	6.48
Jun	4.07	4.11	1.82	1992	21	9.43	1998	1.15	1995	14.9	9.2	2.7	.7	1.77	2.14	2.65	3.06	3.45	3.85	4.27	4.75	5.36	6.29	7.13
Jul	3.88	3.82	2.35	1983	6	7.18	1996	1.41	1977	13.7	8.3	2.9	.5	1.73	2.07	2.55	2.94	3.31	3.67	4.06	4.51	5.08	5.94	6.71
Aug	3.99	3.57	3.46	1991	20	9.76	1991	.95	1996	13.5	7.9	2.8	.6	1.22	1.60	2.17	2.65	3.12	3.61	4.15	4.78	5.59	6.86	8.04
Sep	3.64	3.47	4.91	1999	11	12.00	1999	1.01	1972	13.1	7.1	2.3	.7	1.34	1.69	2.18	2.59	2.98	3.38	3.81	4.31	4.96	5.94	6.85
Oct	3.46	3.12	2.88	1995	22	9.00	1995	1.02	1994	13.9	7.2	2.2	.7	1.17	1.49	1.97	2.38	2.77	3.17	3.61	4.12	4.77	5.79	6.73
Nov	3.44	3.25	1.69	1969	6	7.97	1983	1.60	1978	14.7	7.2	2.3	.6	1.50	1.81	2.24	2.59	2.92	3.25	3.61	4.01	4.53	5.32	6.03
Dec	3.00	2.53	1.99	2000	18	8.21	1973	1.39	1992	15.2	7.0	1.4	.3	1.13	1.41	1.81	2.15	2.46	2.79	3.14	3.55	4.07	4.88	5.61
Ann	40.61	39.56	4.91	Sep 1999	11	12.00	Sep 1999	.41	Jan 1985	162.0	85.9	25.1	6.3	33.46	34.92	36.75	38.11	39.30	40.43	41.58	42.84	44.34	46.49	48.31

⁺ 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: 1969-2001

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

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Climate Division: ME 1 NWS Call Sign: Elevation: 1,530 Feet Lat: 44°58N Lon: 70°39W

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nui	mber	of Day	VS (1)		
	Mean	s/Medi	ians (1))					Extre	mes (2)							ow Fa			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	30.7	28.7	12	13	19.3	1994	18	60.6	1978	36	1979	31	26	1982	12.1	6.8	2.9	1.8	.3	-9.9	-9.9	-9.9	-9.9
Feb	19.9	16.8	16	14	23.2	1978	8	42.4	1993	39	1979	1	36	1979	9.4	5.3	2.5	1.1	.2	-9.9	-9.9	-9.9	-9.9
Mar	19.1	18.3	15	12	20.0	1993	14	41.9	1997	44	1982	8	31	1982	9.4	4.9	2.3	1.2	.2	-9.9	-9.9	-9.9	-9.9
Apr	9.0	7.3	3	2	16.5	1996	11	35.9	1996	32	1982	8	12	1982	4.7	2.6	1.0	.5	.1	8.6	4.6	2.8	1.2
May	.3	.0	#	0	2.0	1986	5	2.5	1997	2	1987	1	#+	1997	.3	.2	.0	.0	.0	.2	.0	.0	.0
Jun	#	.0	0	0	#	1980	10	#	1980	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	#	1992	30	#+	1992	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	1.7	.3	#	0	8.5	2000	30	13.0	2000	9	2000	30	1	2000	1.2	.6	.2	.1	.0	1.0	.2	.1	.0
Nov	10.0	9.5	1	1	13.0	1971	26	22.0	1971	12+	1986	22	3	1997	7.1	3.1	.9	.3	@	8.4	3.9	1.4	.2
Dec	21.1	18.9	7	6	11.7	2000	31	48.8	1981	33	1995	22	17+	1995	12.4	6.6	2.5	1.2	.2	25.1	17.9	12.9	3.4
Ann	111.8	99.8	N/A	N/A	23.2	Feb 1978	8	60.6	Jan 1978	44	Mar 1982	8	36	Feb 1979	56.6	30.1	12.3	6.2	1.0	-9.9	-9.9	-9.9	-9.9

⁺ 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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Station: RANGELEY, ME

Climate Division: ME 1 NWS Call Sign:

NWS Call Sign: Elevation: 1,530 Feet Lat: 44°58N

				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((*)	
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/29	6/23	6/18	6/15	6/11	6/08	6/04	5/31	5/25
32	6/12	6/07	6/04	6/01	5/29	5/26	5/23	5/20	5/15
28	5/30	5/25	5/22	5/20	5/17	5/15	5/12	5/09	5/05
24	5/12	5/09	5/07	5/05	5/03	5/01	4/29	4/26	4/23
20	5/03	4/29	4/26	4/24	4/21	4/19	4/17	4/14	4/10
16	4/23	4/19	4/16	4/13	4/11	4/08	4/05	4/02	3/29
		-	Fal	l Freeze Da	tes (Month/D	ay)			•
Town (F)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	d(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	8/24	8/29	9/01	9/05	9/07	9/10	9/14	9/17	9/22
32	9/02	9/07	9/11	9/14	9/17	9/20	9/23	9/27	10/02
28	9/23	9/26	9/29	10/01	10/03	10/05	10/07	10/09	10/13
24	9/30	10/05	10/08	10/11	10/14	10/16	10/19	10/22	10/27
20	10/09	10/15	10/19	10/22	10/25	10/29	11/01	11/05	11/11
16	10/25	10/31	11/04	11/07	11/10	11/13	11/16	11/20	11/26
		-	1	Freeze F	ree Period				•
Torrer (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	112	104	98	93	88	83	78	71	63
32	132	125	119	115	110	106	101	96	88
28	153	148	144	141	138	135	131	128	122
24	181	175	171	167	163	160	156	152	146
20	209	202	196	191	186	182	177	171	164
16	235	227	222	217	213	208	203	198	190

^{*} 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 do

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	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1724	1496	1314	868	480	184	74	121	341	717	1032	1492	9843		
60	1569	1356	1159	718	333	77	13	39	203	562	882	1337	8248		
57	1476	1272	1066	628	252	38	3	15	134	470	792	1244	7390		
55	1414	1216	1004	568	204	21	0	6	96	410	732	1182	6853		
50	1259	1076	849	422	107	3	0	0	34	268	582	1027	5627		
32	703	578	326	56	1	0	0	0	0	8	111	499	2282		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	2	6	35	178	544	815	994	932	650	315	69	30	4570
55	0	0	0	0	34	146	281	225	55	3	0	0	744
57	0	0	0	0	20	103	222	171	34	1	0	0	551
60	0	0	0	0	8	52	139	103	13	0	0	0	315
65	0	0	0	0	1	9	44	30	1	0	0	0	85
70	0	0	0	0	0	0	6	4	0	0	0	0	10

										Gro	wing l	Degre	e Uni	ts (2)										
Base					Growing	g Degree	Units (N	(Ionthly)					Growing Degree Units (Accumulated Monthly)											
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov De												Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	0 0 5 53 313 580 748 692 417 137 26												0	0	5	58	371	951	1699	2391	2808	2945	2971	2971
45	0 0 1 18 190 433 593 537 275 63 5											0	0	0	1	19	209	642	1235	1772	2047	2110	2115	2115
50	0	0	0	7	100	290	439	385	155	20	1	0	0	0	0	7	107	397	836	1221	1376	1396	1397	1397
55	0	0	0	0	40	167	291	237	76	5	0	0	0	0	0	0	40	207	498	735	811	816	816	816
60	0	0	0	0	14	75	155	118	25	0	0	0	0	0	0	0	14	89	244	362	387	387	387	387
Base	Growing Degree Units for Corn (Monthly)											Growing Degree Units for Corn (Accumulated Monthly)												
50/86	50/86 0 0 8 51 209 350 467 425 250 92 13 0											0	0	0	8	59	268	618	1085	1510	1760	1852	1865	1865

(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