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 CREEK, OR 1971-2000 COOP ID: 355020

Climate Division: OR 8 NWS Call Sign: LOGO Elevation: 3,720 Feet Lat: 44°43N Lon: 119°06W

									r	Гетр	eratur	re (°F)									
	Mea	n (1)						Extr	emes					Degree Base To	•		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	37.5	19.1	28.3	61+	1981	22	35.7	1986	-23	1962	21	14.7	1979	1138	0	.0	.0	3.8	7.0	26.2	1.8
Feb	43.0	23.1	33.1	69	1995	20	40.3	1992	-21	1989	4	20.9	1989	895	0	.0	.0	7.7	2.6	23.3	.8
Mar	48.8	26.9	37.9	76+	1966	29	43.1	1986	2+	1989	3	31.2	1975	843	0	.0	.0	16.3	.3	24.0	@
Apr	55.2	30.5	42.9	88	1962	22	48.7	1987	9	1964	18	36.7	1975	665	0	.0	.0	22.9	@	19.2	.0
May	63.2	35.6	49.4	94	2001	24	55.3+	1993	17	1964	23	44.5	1977	484	0	.0	.2	29.0	.0	9.9	.0
Jun	71.5	40.1	55.8	97+	1961	17	61.0	1992	25	1962	4	51.3	1980	285	9	.0	.8	29.8	.0	2.3	.0
Jul	80.7	44.5	62.6	105+	1967	12	69.1	1998	28	1962	2	55.6	1993	130	56	.1	6.4	31.0	.0	.3	.0
Aug	80.5	44.0	62.3	108	1961	4	67.0	1986	26	1965	30	56.8	1980	143	57	.2	6.7	31.0	.0	.2	.0
Sep	71.3	37.4	54.4	98	1969	1	61.2	1998	17	1965	17	46.9	1986	339	19	.0	1.1	29.8	.0	5.8	.0
Oct	60.1	31.8	46.0	88+	2001	2	54.0	1988	2	1971	29	40.4	1971	590	0	.0	.0	26.9	.2	14.6	.0
Nov	44.9	25.1	35.0	75	1980	4	45.6	1999	-10+	1993	24	23.5	1985	900	0	.0	.0	11.8	1.8	21.9	.3
Dec	37.9	19.5	28.7	65	1980	30	34.0	1980	-25+	1990	30	20.1	1990	1125	0	.0	.0	4.4	5.4	27.4	1.6
Ann	57.9	31.5	44.7	108	Aug 1961	4	69.1	Jul 1998	-25+	Dec 1990	30	14.7	Jan 1979	7537	141	.3	15.2	244.4	17.3	175.1	4.5

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 071-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: 1957-2001

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

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										Pı	recipi	tation	(incl	ies)										
	Mea	ans/	P	recip	itatio	on Total					ean N of D	ays (3	3)	Proba	ability th		nonthly/	annual j	precipita ated an		l be equ		less tha	ın the
	Medi	ans(1)				Extremes	,				any 116	стриано	11		Th	ese value	s were det	termined	from the	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	1.66	1.54	.95	1998	19	4.19	1984	.35	1974	10.7	6.3	.5	.0	.46	.62	.86	1.07	1.27	1.49	1.72	2.00	2.36	2.93	3.46
Feb	1.29	1.05	.75	1984	14	3.41	1984	.31	1990	8.6	4.5	.5	.0	.29	.41	.60	.77	.94	1.12	1.33	1.57	1.89	2.41	2.89
Mar	1.68	1.45	1.41	1986	28	4.88	1984	.35	1985	11.0	5.6	.7	.1	.42	.58	.82	1.04	1.26	1.48	1.74	2.04	2.43	3.06	3.64
Apr	1.71	1.59	1.48	1978	1	3.95	1995	.12	1973	10.7	6.0	.4	.1	.40	.56	.81	1.04	1.26	1.49	1.76	2.07	2.48	3.13	3.74
May	1.91	1.87	1.22	1989	9	4.34	1994	.02	1976	9.7	5.9	.9	.1	.27	.43	.70	.97	1.24	1.55	1.90	2.33	2.91	3.86	4.77
Jun	1.35	1.36	1.19	1982	4	3.64	1982	.00	1973	7.3	4.2	.6	@	.18	.35	.58	.77	.96	1.16	1.39	1.66	2.01	2.58	3.11
Jul	.82	.53	1.30	1994	24	2.52	1992	.00+	1995	3.9	2.2	.5	.1	.00	.00	.06	.22	.38	.56	.77	1.03	1.40	2.00	2.62
Aug	.90	.65	1.60	1984	31	3.78	1989	.00+	2000	3.2	2.2	.5	.3	.00	.00	.08	.20	.34	.53	.76	1.07	1.52	2.31	3.11
Sep	.81	.72	.96	1966	14	2.70	1995	.00+	1999	4.3	2.5	.2	.0	.00	.00	.11	.26	.41	.57	.77	1.01	1.35	1.91	2.46
Oct	1.21	1.23	.75	1975	26	3.55	1975	.00	1978	6.6	3.6	.4	.0	.08	.21	.40	.57	.76	.96	1.20	1.49	1.88	2.52	3.14
Nov	1.80	1.69	2.05	1982	27	3.38	1995	.32	1974	10.7	6.1	.5	.1	.55	.73	.98	1.20	1.41	1.63	1.87	2.16	2.52	3.09	3.62
Dec	1.64	1.45	1.50	1981	15	4.27	1981	.19	1999	9.5	5.1	.5	@	.34	.48	.73	.94	1.17	1.40	1.67	1.99	2.42	3.10	3.74
Ann	16.78	15.95	2.05	Nov 1982	27	4.88	Mar 1984	.00+	Aug 2000	96.2	54.2	6.2	.8	9.54	10.82	12.53	13.87	15.09	16.29	17.56	18.98	20.74	23.35	25.67

⁺ 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: 1957-2001

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Climate Division: OR 8 NWS Call Sign: LOGO Elevation: 3,720 Feet Lat: 44°43N Lon: 119°06W

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nu	mber	of Day	yS (1)		
	Mean	s/Medi	ians (1))					Extre	mes (2)							ow Fa					Depth esholo	
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	6.1	4.5	2	1	8.5	1998	11	24.3	1993	11	1982	11	8	1993	3.7	3.0	1.0	.2	.0	6.5	3.9	1.8	.0
Feb	4.6	3.0	1	#	8.0	1984	16	15.1	1999	9	1995	13	3	1999	3.0	2.1	.6	.1	.0	2.6	1.2	.3	.0
Mar	4.6	4.0	#	#	7.5	1982	18	20.4	1982	9+	2000	6	1+	2000	2.6	1.6	.6	.1	.0	.6	.2	.1	.0
Apr	2.9	1.1	#	#	5.0	1975	5	26.0	1975	4	1975	6	#+	1999	1.6	.9	.4	.1	.0	.3	.1	.0	.0
May	.4	.0	#	0	4.0	1972	8	4.0+	1981	#+	2000	31	#+	2000	.3	.1	@	.0	.0	.0	.0	.0	.0
Jun	.1	.0	#	0	1.5	1999	8	1.5	1999	#	1988	15	#	1988	@	@	.0	.0	.0	.0	.0	.0	.0
Jul	.0	.0	#	0	.0	0	0	.0	0	#	1999	24	#	1999	.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	#	1978	18	#+	1978	#	1983	10	#	1983	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.5	.0	#	0	3.5	1991	29	4.5	1975	7	1971	31	1	1971	.4	.3	.1	.0	.0	.1	.1	.0	.0
Nov	3.1	1.0	#	#	9.0	1981	24	17.3	1973	9	1981	24	3	1985	2.2	1.6	.5	@	.0	2.0	1.2	.8	.0
Dec	5.8	3.1	1	#	6.5	1984	16	22.2	1983	11	1985	1	5	1984	3.0	2.2	.8	.2	.0	4.1	2.7	1.7	.1
Ann	28.1	16.7	N/A	N/A	9.0	Nov 1981	24	26.0	Apr 1975	11+	Dec 1985	1	8	Jan 1993	16.8	11.8	4.0	.7	.0	16.2	9.4	4.7	.1

⁺ 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: 3,720 Feet Lat: 44°43N Lon: 119°06W

				Freez	e Data				
			Spri	ng Freeze D	ates (Month	/Day)			
Temp (F)		P	robability of	later date i	n spring (thr	ru Jul 31) tha	n indicated((*)	
Temp (I')	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	7/24	7/19	7/15	7/11	7/08	7/05	7/02	6/28	6/22
32	7/08	6/30	6/25	6/20	6/15	6/11	6/06	6/01	5/24
28	6/14	6/06	5/31	5/26	5/21	5/16	5/12	5/06	4/28
24	5/17	5/10	5/04	4/30	4/26	4/22	4/17	4/12	4/05
20	4/27	4/20	4/15	4/10	4/06	4/02	3/29	3/24	3/17
16	4/06	3/28	3/22	3/16	3/11	3/06	3/01	2/22	2/13
			Fal	ll Freeze Da	tes (Month/I	Day)			
Tomp (F)		Pro	bability of e	arlier date i	n fall (beginr	ning Aug 1) t	han indicate	ed(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	8/06	8/12	8/17	8/20	8/24	8/27	8/31	9/04	9/10
32	8/27	8/31	9/04	9/07	9/10	9/12	9/15	9/19	9/24
28	9/10	9/15	9/19	9/22	9/25	9/28	10/01	10/05	10/10
24	9/26	10/02	10/06	10/09	10/12	10/16	10/19	10/23	10/29
20	10/05	10/13	10/19	10/24	10/29	11/03	11/08	11/13	11/21
16	10/27	11/04	11/10	11/16	11/20	11/25	12/01	12/07	12/15
			•	Freeze F	ree Period			П	•
Tomas (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days))	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	71	62	56	51	46	41	35	29	21
32	111	102	96	91	86	80	75	69	60
28	157	146	139	132	126	120	114	106	96
24	195	186	180	174	169	164	158	152	143
20	234	224	217	211	205	199	193	186	176
16	288	276	267	260	253	247	239	231	219

^{*} 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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				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	1138	895	843	665	484	285	130	143	339	590	900	1125	7537
60	983	755	688	515	334	162	53	65	221	437	750	970	5933
57	890	671	595	426	251	106	25	34	163	348	660	877	5046
55	828	615	533	369	200	75	14	21	130	292	603	815	4495
50	679	479	381	234	100	24	2	5	63	168	463	661	3259
32	228	103	28	7	0	0	0	0	0	3	99	194	662

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	113	132	208	332	539	714	949	937	670	436	188	91	5309
55	0	0	0	4	26	99	250	245	110	12	2	0	748
57	0	0	0	1	15	70	199	196	83	5	0	0	569
60	0	0	0	0	5	36	134	133	51	2	0	0	361
65	0	0	0	0	0	9	56	57	19	0	0	0	141
70	0	0	0	0	0	1	15	16	6	0	0	0	38

										Gro	wing]	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (N	(Ionthly)								Growi	ng Degre	ee Units (Accumu	lated Mo	nthly)			
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	16	33	69	161	344	520	751	747	488	262	61	15	16	49	118	279	623	1143	1894	2641	3129	3391	3452	3467
45	0 6 27 75 208 370 596 592 344 145 22												0	6	33	108	316	686	1282	1874	2218	2363	2385	2386
50	0 0 0 28 103 230 441 437 214 65 2											0	0	0	0	28	131	361	802	1239	1453	1518	1520	1520
55	0	0	0	5	41	120	292	285	110	21	0	0	0	0	0	5	46	166	458	743	853	874	874	874
60	0 0 0 0 12 49 160 157 41 2 0										0	0	0	0	0	12	61	221	378	419	421	421	421	
Base	e Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)	•	
50/86	0/86 2 25 59 126 246 349 493 491 355 206 39												2	27	86	212	458	807	1300	1791	2146	2352	2391	2391

(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