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: 355050

Lon: 122°46W

Station: LOOKOUT POINT DAM, OR

Climate Division: OR 2 NWS Call Sign:

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 47.5 34.6 41.1 70 1961 8 45.6 1998 6+ 1979 2 32.1 1979 743 0 .0 .0 12.0 .6 11.1 0. Jan 51.7 36.6 44.2 73 +1995 20 49.5 1992 7 1989 5 36.8 1989 584 0 .0 .0 17.0 .2 5.9 0. Feb Mar 55.6 38.8 47.2 77 1987 5 52.0 1992 23 1971 2 43.1 1971 552 0 .0 .0 25.2 .0 2.4 0. 30 28 29 45.5 1975 Apr 59.7 41.4 50.6 84 +1998 54.9 1992 1970 434 0 .0 .0 27.7 .0 .5 .0 May 65.6 45.2 55.4 91 2001 23 61.1 1992 30 1987 19 51.2 1977 301 4 .0 .1 30.8 .0 @ .0 49.5 1992 23 @ Jun 71.7 60.6 101 65.2 1992 36+ 1976 4 56.9 1976 152 20 .6 30.0 .0 .0 .0 Jul 79.7 53.3 66.5 13 70.5 1985 40 15 62.2 1993 52 99 **(**a) 3.9 31.0 .0 .0 101 1961 1969 .0 1975 80.6 53.3 67.0 106 1981 10 70.8 1986 42 1973 18 63.8 36 95 .2 4.0 31.0 .0 .0 .0 Aug 33 @ Sep 75.4 50.2 62.8 101 1987 1 66.3 1974 1999 27 58.8 1985 112 45 .9 30.0 .0 .0 .0 7 58.7 28 Oct 64.6 45.1 54.9 89+ 1987 1988 1985 9 51.0 1971 316 1 .0 .0 30.2 .0 .3 .0 52.8 39.8 46.3 72 1967 50.8 1999 16+ 1955 16 39.3 1985 560 0 .0 .0 21.0 3.0 .0 Nov 1 .1 Dec 46.9 35.2 41.1 72 1979 18 45.3 1979 3 1990 21 34.6 1990 742 0 .0 .0 11.2 .8 9.3 .0 Aug Aug Dec Jan 43.6 53.1 106 1981 10 70.8 1986 3 1990 21 32.1 1979 4584 264 .2 9.5 297.1 1.7 32.5 .0 62.7 Ann

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

Issue Date: February 2004 072-A

(1) From the 1971-2000 Monthly Normals

Elevation: 712 Feet Lat: 43°55N

- (2) Derived from station's available digital record: 1955-2001
- (3) Derived from 1971-2000 serially complete daily data

⁺ Also occurred on an earlier date(s)

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

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										Pı	recipi	tation	(incl	nes)												
	Mea	Precipitation Totals Means/ Extremes										Jumbo ays (3)	Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount Monthly/Annual Precipitation vs Probability Levels												
	Medi	ans(1)				Extremes	•			"	any 116	приано	11	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	6.03	6.63	3.56	1966	4	11.23	2000	.74	1985	19.2	12.6	4.0	1.1	1.52	2.09	2.97	3.75	4.51	5.32	6.22	7.29	8.69	10.90	12.97		
Feb	5.21	4.71	4.05	1961	10	9.96	1986	1.52	1988	18.1	12.0	3.2	.6	1.97	2.45	3.15	3.73	4.28	4.84	5.45	6.16	7.06	8.44	9.71		
Mar	5.05	4.81	1.55	1997	2	10.25	1989	1.59	1992	19.9	13.0	3.1	.5	2.28	2.73	3.35	3.85	4.32	4.79	5.29	5.87	6.60	7.70	8.70		
Apr	4.23	4.08	2.54	1992	10	7.82	1993	1.66	1987	18.4	11.8	2.4	.2	1.80	2.18	2.72	3.16	3.57	3.99	4.43	4.95	5.60	6.59	7.49		
May	3.47	3.17	1.59	1991	8	7.32	1998	.67	1982	14.6	9.2	2.1	.3	1.00	1.33	1.83	2.26	2.68	3.12	3.60	4.18	4.92	6.08	7.16		
Jun	2.12	1.77	1.34	1969	26	4.94	1993	.58	1977	9.3	5.9	1.3	.1	.69	.89	1.19	1.44	1.68	1.94	2.21	2.54	2.95	3.60	4.20		
Jul	.79	.49	1.49	1987	19	3.52	1987	.01	1972	4.9	2.2	.4	.1	.02	.06	.14	.24	.36	.51	.69	.94	1.29	1.91	2.53		
Aug	1.10	.73	2.07	1989	23	4.07	1989	.00+	2000	5.4	2.6	.8	.1	.00	.00	.05	.21	.41	.65	.95	1.34	1.89	2.83	3.80		
Sep	1.76	1.62	2.32	1981	27	4.54	1986	.09	1991	7.4	4.8	1.0	.1	.10	.20	.42	.65	.92	1.24	1.63	2.12	2.81	3.99	5.17		
Oct	3.28	2.97	2.00	1955	10	7.11	1996	.12	1987	12.2	7.6	2.2	.3	.57	.85	1.33	1.78	2.24	2.74	3.31	4.00	4.92	6.40	7.83		
Nov	7.11	6.10	5.50	1996	19	16.92	1973	2.09	1993	20.1	14.1	4.8	1.5	2.25	2.93	3.93	4.78	5.61	6.46	7.40	8.50	9.91	12.12	14.16		
Dec	6.57	5.36	4.62	1981	6	15.43	1981	1.23	1976	20.1	13.6	4.3	1.1	1.73	2.35	3.30	4.14	4.96	5.83	6.79	7.94	9.42	11.77	13.96		
Ann	46.72	46.22	5.50	Nov 1996	19	16.92	Nov 1973	.00+	Aug 2000	169.6	109.4	29.6	6.0	34.04	36.52	39.68	42.08	44.19	46.24	48.35	50.67	53.48	57.55	61.06		

⁺ 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: 1955-2001

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

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Climate Division: OR 2 NWS Call Sign: Elevation: 712 Feet Lat: 43°55N Lon: 122°46W

										Snov	w (incl	hes)											
						Sno	ow To	tals									Mea	n Nu	mber	of Day	ys (1)		
	Mean	s/Medi	ans (1)	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	1.4	.0	#	0	6.6	1971	14	9.1	1971	8	1971	14	#+	1993	.7	.5	.1	.1	.0	.2	.1	@	.0
Feb	1.3	.0	#	0	4.4	1989	2	6.6	1989	6	1989	2	1	1989	.6	.4	.1	.0	.0	.5	.2	.1	.0
Mar	.0	.0	#	0	.0	0	0	.0	0	2	1971	1	#	1971	.0	.0	.0	.0	.0	.0	.0	.0	.0
Apr	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
May	#	.0	0	0	#	1971	17	#	1971	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	#	1983	20	#	1983	#	1983	20	#	1983	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	1.4	.0	#	0	4.5	1990	19	6.9	1972	5+	1990	19	1	1990	.9	.4	.2	.0	.0	.9	.4	.1	.0
Ann	4.1	.0	N/A	N/A	6.6	Jan 1971	14	9.1	Jan 1971	8	Jan 1971	14	1+	Dec 1990	2.2	1.3	.4	.1	.0	1.6	.7	.2	.0

⁺ 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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Freeze Data Spring Freeze Dates (Month/Day) Probability of later date in spring (thru Jul 31) than indicated(*) Temp (F) .10 .20 .30 .40 .60 .70 .80 .90 36 5/21 5/14 5/08 5/03 4/29 4/24 4/20 4/14 4/06 32 4/10 4/01 3/19 4/21 3/25 3/12 3/05 2/25 2/13 28 3/03 2/20 2/12 2/05 1/30 1/23 1/16 12/20 1/06 1/23 0/00 24 2/15 2/06 1/30 1/16 1/08 12/25 0/00 20 2/08 1/27 1/17 1/08 12/28 12/10 0/00 0/00 0/00 1/22 16 1/03 0/00 0/00 0/00 0/00 0/00 0/00 0/00 Fall Freeze Dates (Month/Day) Probability of earlier date in fall (beginning Aug 1) than indicated(*) Temp (F) .20 .30 .40 .50 .70 .10 .60 .80 .90 10/23 36 10/08 10/17 10/28 11/02 11/07 11/12 11/19 11/27 32 10/26 11/03 11/08 11/13 11/18 11/22 11/27 12/02 12/10 28 11/09 11/19 11/26 12/02 12/08 12/14 12/20 12/29 1/13 24 11/28 12/10 12/20 12/28 1/07 1/19 0/00 0/00 0/00 20 12/06 12/21 1/01 1/12 1/24 2/15 0/00 0/00 0/00 12/27 1/14 0/00 0/00 0/00 16 0/00 0/00 0/00 0/00 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 220 209 200 193 187 180 173 164 153 36 32 285 271 260 251 243 235 226 215 201 28 357 334 321 311 302 293 282 268 >365 24 >365 >365 >365 >365 >365 359 337 322 307 347 20 >365 >365 >365 >365 >365 >365 >365 326

>365

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

>365

Derived from 1971-2000 serially complete daily data

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Complete documentation available from:

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^{*} Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

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	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree 1	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	743	584	552	434	301	152	52	36	112	316	560	742	4584		
60	588	444	397	287	166	59	11	5	39	174	411	587	3168		
57	495	360	310	206	104	26	3	0	16	105	327	494	2446		
55	435	308	252	157	72	13	1	0	7	70	273	433	2021		
50	293	183	132	67	19	1	0	0	0	18	156	288	1157		
32	14	2	0	0	0	0	0	0	0	0	2	10	28		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	294	342	471	556	725	858	1070	1082	923	708	432	291	7752
55	2	4	10	23	84	181	357	369	240	65	13	1	1349
57	0	0	5	12	55	134	298	308	188	38	7	0	1045
60	0	0	0	4	24	77	213	220	122	14	1	0	675
65	0	0	0	0	4	20	99	95	45	1	0	0	264
70	0	0	0	0	0	2	30	23	10	0	0	0	65

Growing Degree Units (2) Base Growing Degree Units (Monthly) Growing Degree Units (Accumulated Monthly)																										
Base					Growing	g Degree	Units (N	(Ionthly)					Growing Degree Units (Accumulated Monthly)													
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec														Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
40	105	156	238	332	488	630	832	843	692	473	217	106	105	261	499	831	1319	1949	2781	3624	4316	4789	5006	5112		
45	38	61	111	187	335	480	677	688	542	319	100	33	38	99	210	397	732	1212	1889	2577	3119	3438	3538	3571		
50	1	15	35	86	196	330	522	533	393	176	35	3	1	16	51	137	333	663	1185	1718	2111	2287	2322	2325		
55	0	0	4	34	92	191	367	378	246	74	5	0	0	0	4	38	130	321	688	1066	1312	1386	1391	1391		
60	0	0	0	5	32	84	222	227	120	18	0	0	0	0	0	5	37	121	343	570	690	708	708	708		
Base		Growing Degree Units for Corn (Monthly)													Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)	•			
50/86	6 31 60 105 160 262 356 514 524 412 240 71 30												31	91	196	356	618	974	1488	2012	2424	2664	2735	2765		

(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