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: 356532

Lon: 121°15W

Station: PELTON DAM, OR

Climate Division: OR 7

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 46.1 25.9 36.0 71 1989 30 41.4 1992 -12+1962 22 19.1 1979 899 0 .0 .0 11.8 3.3 23.9 .5 Jan 53.0 28.6 40.8 78+ 1995 24 47.3 1991 -11 1989 5 30.4 1989 677 0 .0 .0 18.2 1.1 19.3 .4 Feb Mar 61.7 31.2 46.5 86+ 1997 25 51.1 1986 10 1993 42.1 1971 576 0 .0 .0 29.3 .0 19.0 0. 27 1975 3 Apr 69.5 34.8 52.2 95 1987 57.6 1987 17 1997 12 46.3 388 .0 .5 30.0 .0 11.9 .0 May 78.3 40.5 59.4 108 +2001 23 65.0 1992 22 2001 29 55.3 1977 195 22 .4 4.0 31.0 .0 4.1 .0 29 2 10.0 .2 86.5 46.4 66.5 108 +2000 29 71.4 1987 1976 61.7 1997 66 110 1.8 30.0 .0 0. Jun Jul 95.4 50.6 73.0 114+ 1994 22 78.4 1985 36 1988 6 65.7 1993 11 259 9.6 21.5 31.0 .0 .0 .0 95.1 50.2 72.7 117 1998 4 76.4 +1986 36+ 1993 26 68.2 1980 10 247 9.0 20.8 31.0 .0 @ 0. Aug 3 Sep 86.1 43.5 64.8 108 1988 69.6 1990 25+2000 23 59.7 1985 96 90 1.2 10.2 30.0 .0 1.3 .0 29 50.4 1984 (a) Oct 72.3 36.1 54.2 103 1996 9 61.0 1988 14 1971 336 2 1.1 30.4 .0 10.0 .0 54.3 31.5 42.9 81 1999 13 48.0 1999 -2 1993 25 32.3 1985 663 0 .0 21.3 .1 Nov .0 .5 16.4 Dec 46.0 26.4 36.2 69+ 1980 25 42.1 1973 -15 1972 8 24.9 1985 893 0 .0 .0 11.8 2.7 24.1 .5 Aug Jul Dec Jan 70.4 37.1 53.8 117 1998 4 78.4 1985 -15 1972 8 19.1 1979 4810 733 22.0 68.1 305.8 130.2 1.5 7.6 Ann

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

Issue Date: February 2004 102-A

Elevation: 1,410 Feet Lat: 44°44N

⁺ Also occurred on an earlier date(s)

[@] 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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										Pı	recipi	tation	(incl	nes)										
	Mea	Precipitation Totals Means/ Medians(1) Extremes										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)			Daily Precipitation				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	1.65	1.65	.93	1990	8	3.87	1995	.15	1985	9.9	5.3	.6	.0	.32	.46	.71	.93	1.16	1.40	1.68	2.01	2.45	3.16	3.84
Feb	1.10	.94	1.15	1961	10	3.24	1983	.10	1990	9.7	3.4	.3	@	.15	.24	.40	.55	.71	.89	1.10	1.35	1.69	2.24	2.78
Mar	.95	.83	.71	1999	31	2.35	1983	.09	1973	8.6	3.2	.2	.0	.18	.27	.41	.54	.67	.81	.96	1.16	1.41	1.82	2.20
Apr	.80	.76	1.22	1978	26	2.25	1989	.03	1985	6.6	2.4	.2	.1	.07	.12	.23	.34	.46	.60	.77	.97	1.26	1.74	2.20
May	.85	.73	1.34	1998	29	4.12	1998	.00	1974	6.0	3.0	.2	.1	.05	.13	.27	.39	.52	.67	.84	1.05	1.34	1.80	2.26
Jun	.56	.47	.87	1969	9	1.53	1988	.00+	1974	4.2	1.8	.2	.0	.00	.04	.12	.21	.30	.40	.53	.69	.90	1.27	1.62
Jul	.37	.26	.89	1995	9	1.70	1987	.00+	1994	2.6	1.4	.2	.0	.00	.00	.03	.08	.15	.22	.32	.44	.62	.92	1.22
Aug	.44	.25	.78	1965	24	1.54	1976	.00+	2000	2.6	1.3	.2	.0	.00	.00	.00	.06	.15	.25	.37	.53	.77	1.17	1.58
Sep	.41	.26	1.15	1982	20	1.82	1982	.00+	1999	3.6	1.4	.1	@	.00	.00	.02	.09	.17	.26	.37	.50	.70	1.02	1.36
Oct	.65	.55	.74	1982	29	1.67	1982	.00+	1988	5.1	2.2	.2	.0	.00	.08	.19	.30	.41	.52	.65	.81	1.03	1.39	1.73
Nov	1.53	1.08	2.80	1996	19	4.78	1996	.18	1974	10.4	4.3	.6	.1	.17	.28	.50	.71	.94	1.19	1.49	1.87	2.38	3.22	4.04
Dec	1.49	1.01	2.00	1964	23	5.19	1981	.03	1976	10.1	4.7	.5	@	.12	.23	.42	.63	.86	1.12	1.42	1.81	2.35	3.25	4.13
Ann	10.80	9.68	2.80	Nov 1996	19	5.19	Dec 1981	.00+	Aug 2000	79.4	34.4	3.5	.3	5.88	6.73	7.88	8.79	9.62	10.44	11.30	12.28	13.50	15.30	16.91

⁺ 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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Climate Division: OR 7 NWS Call Sign: Elevation: 1,410 Feet Lat: 44°44N Lon: 121°15W

										Snov	w (inc	hes)													
						Sn	ow To	tals									Mea	ın Nu	mber	of Day	ys (1)				
	Mean	s/Medi	ians (1))	Extremes (2)											Snow Fall >= Thresholds						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	1.3	.0	#	0	5.0	1981	27	5.0	1981	9	1993	17	7	1993	.6	.5	.1	.1	.0	.3	.1	.0	.0		
Feb	.5	.0	1	0	7.0	1975	8	7.0	1975	18	1986	13	17	1986	.1	.0	.0	.0	.0	.0	.0	.0	.0		
Mar	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.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	0	.0	0	0	.0	0	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	1.2	.0	#	0	8.0	1977	22	8.5	1977	11	1977	22	#	1977	.4	.3	.1	.1	.0	.1	.0	.0	.0		
Dec	1.7	.5	#	0	6.0	1985	1	11.0	1985	5	1972	12	2	1972	.8	.7	.2	.1	.0	.1	.0	.0	.0		
Ann	4.7	.5	N/A	N/A	8.0	Nov 1977	22	11.0	Dec 1985	18	Feb 1986	13	17	Feb 1986	1.9	1.5	.4	.3	.0	.5	.1	.0	.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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				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	an indicated(*)							
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	6/26	6/21	6/17	6/13	6/10	6/07	6/04	5/31	5/25						
32	6/05	5/31	5/27	5/23	5/20	5/17	5/14	5/10	5/04						
28	5/15	5/10	5/06	5/03	4/30	4/27	4/24	4/20	4/14						
24	5/01	4/23	4/17	4/12	4/07	4/03	3/29	3/23	3/15						
20	4/06	3/27	3/20	3/13	3/08	3/02	2/23	2/16	2/06						
16	3/05	2/22	2/14	2/07	1/31	1/25	1/18	1/09	12/27						
•			Fal	l Freeze Da	tes (Month/D	ay)		•	•						
To (E)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	8/28	9/02	9/07	9/10	9/14	9/17	9/20	9/25	10/01						
32	9/12	9/18	9/22	9/26	9/29	10/02	10/06	10/10	10/16						
28	9/24	9/30	10/05	10/08	10/12	10/15	10/19	10/24	10/30						
24	10/12	10/18	10/23	10/27	10/31	11/04	11/08	11/13	11/19						
20	10/28	11/07	11/14	11/20	11/25	12/01	12/06	12/13	12/23						
16	11/05	11/17	11/26	12/03	12/10	12/17	12/25	1/03	1/18						
				Freeze F	ree Period										
Temp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)								
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	118	110	104	99	95	90	85	80	72						
32	156	148	141	136	131	126	121	114	106						
28	188	180	174	169	164	160	155	149	140						
24	238	227	219	212	206	199	193	185	174						
20	303	289	279	270	262	254	245	235	220						
16	>365	>365	337	320	308	297	286	274	258						

^{*} 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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	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	899	677	576	388	195	66	11	10	96	336	663	893	4810		
60	744	537	421	250	93	20	1	1	36	195	514	738	3550		
57	654	453	329	178	51	8	0	0	16	125	430	645	2889		
55	597	401	270	137	31	3	0	0	9	88	375	584	2495		
50	454	273	140	60	6	0	0	0	0	30	250	440	1653		
32	97	20	0	0	0	0	0	0	0	0	20	75	212		

Base	Cooling Degree Days (1)													
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann	
32	221	268	447	605	851	1034	1272	1260	983	690	347	205	8183	
55	8	4	4	52	169	348	559	547	302	64	13	1	2071	
57	4	0	1	33	127	292	497	485	250	40	8	0	1737	
60	0	0	0	15	76	214	404	393	179	17	2	0	1300	
65	0	0	0	3	22	110	259	247	90	2	0	0	733	
70	0	0	0	0	4	43	137	125	34	0	0	0	343	

	Growing Degree Units (2)																							
Base	Growing Degree Units (Monthly)											Growing Degree Units (Accumulated Monthly)												
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct													Nov	Dec									
40	53	101	198	356	591	776	1005	990	720	431	138	57	53	154	352	708	1299	2075	3080	4070	4790	5221	5359	5416
45	14	34	87	217	436	626	850	835	570	285	60	21	14	48	135	352	788	1414	2264	3099	3669	3954	4014	4035
50	1	5	27	110	288	476	695	680	420	158	18	2	1	6	33	143	431	907	1602	2282	2702	2860	2878	2880
55	0	0	0	46	164	328	540	525	281	68	1	0	0	0	0	46	210	538	1078	1603	1884	1952	1953	1953
60	0	0	0	11	78	193	388	372	157	21	0	0	0	0	0	11	89	282	670	1042	1199	1220	1220	1220
Base				Gro	wing De	gree Unit	s for Co	rn (Mont	hly)						Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	39	77	174	283	409	495	581	580	476	330	91	37	39	116	290	573	982	1477	2058	2638	3114	3444	3535	3572

(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