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: 351643

Station: CLATSKANIE, OR

Climate Division: OR 2

NWS Call Sign:

Elevation: 22 Feet Lat: 46°06N Lon: 123°12W

									ŗ	Tempe	eratu	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)	Year Nor Monual Ver Ver				Day	Lowest Month(1) Mean	Year	Heating	Cooling	Max >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0		
Jan	44.8	31.3	38.1	61	1961	20	43.2	1994	4	1950	31	29.5	1979	836	0	.0	.0	8.2	.8	12.7	.0
Feb	49.5	32.9	41.2	72	1986	28	46.8	1991	1	1989	4	33.8	1989	667	0	.0	.0	14.3	.3	10.1	.0
Mar	54.3	35.4	44.9	78+	1994	28	49.5	1992	20	1971	1	39.8	1971	624	0	.0	.0	24.2	.0	6.7	.0
Apr	58.7	37.9	48.3	86+	1987	27	52.1	1989	26	1986	18	43.6	1972	502	0	.0	.0	28.2	.0	3.2	.0
May	64.0	42.9	53.5	92+	1987	8	57.8	1993	28	1954	1	49.4	1977	357	0	.0	.1	30.9	.0	.2	.0
Jun	68.2	47.4	57.8	99	1992	23	62.2	1992	35+	1999	2	52.7	1971	222	6	.0	.4	30.0	.0	.0	.0
Jul	73.5	50.7	62.1	102	1958	27	66.3	1985	37	1955	2	58.7	1982	122	31	.0	1.3	31.0	.0	.0	.0
Aug	74.5	50.7	62.6	103+	1981	10	65.8	1986	40+	2000	28	58.3	1973	107	33	.1	1.3	31.0	.0	.0	.0
Sep	71.4	46.0	58.7	100	1988	3	62.5	1995	30	2000	23	54.3	1996	202	14	@	.3	30.0	.0	.1	.0
Oct	61.6	39.4	50.5	88	1987	2	55.0	1988	25	1991	30	47.1	1996	450	0	.0	.0	30.1	.0	2.0	.0
Nov	50.3	34.9	42.6	67	1969	1	47.9	1995	8	1955	15	35.1	1985	672	0	.0	.0	18.1	.2	6.9	.0
Dec	44.6	31.5	38.1	64	1993	10	41.7	1999	1+	1990	22	32.4	1990	836	0	.0	.0	6.9	1.2	12.6	.0
Ann	59.6	40.1	49.9	103+	Aug 1981	10	66.3	Jul 1985	1+	Dec 1990	22	29.5	Jan 1979	5597	84	.1	3.4	282.9	2.5	54.5	.0

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 021-A

- (1) From the 1971-2000 Monthly Normals
- (2) Derived from station's available digital record: 1948-2001
- (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	ecipit	tation	(incl	nes)										
	Mea	ans/	P	recip	itatio	on Total						ays (3)	Proba	ability th		nonthly/	annual j	precipita ated am	ount	ies (1)		less tha	ın the
	Medi	ans(1)				Extremes	3			և	aily Pred	cipitatio	n		Th	ese value	s were det	ermined	from the i	incomplet	te gamma	distributi	ion	
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	8.28	8.33	3.00	1972	11	16.03	1990	.38	1985	20.3	14.2	5.8	2.0	1.90	2.67	3.88	4.97	6.05	7.20	8.49	10.04	12.06	15.28	18.31
Feb	6.75	6.37	4.20	1996	8	16.74	1999	.68	1993	18.2	12.9	4.6	1.4	2.02	2.66	3.62	4.45	5.25	6.09	7.01	8.10	9.50	11.70	13.73
Mar	5.94	5.78	2.80	1983	29	11.02	1971	1.06	1992	20.3	13.6	3.7	.7	2.27	2.83	3.62	4.27	4.89	5.53	6.22	7.01	8.02	9.58	11.00
Apr	4.08	3.84	4.17	1991	5	9.54	1991	1.26	1977	17.2	10.3	2.1	.4	1.34	1.73	2.30	2.78	3.25	3.73	4.26	4.87	5.66	6.89	8.03
May	2.69	2.61	1.58	1975	3	5.47	1984	.34	1992	15.0	8.1	1.2	.1	.80	1.05	1.44	1.77	2.09	2.43	2.80	3.23	3.79	4.67	5.49
Jun	1.83	1.79	1.74	1958	6	3.83	1984	.39	1987	10.5	5.8	.8	@	.61	.79	1.04	1.26	1.46	1.68	1.91	2.18	2.53	3.08	3.58
Jul	.84	.77	1.05	1993	17	3.02	1983	.00	1984	6.6	2.1	.3	.1	.04	.11	.24	.36	.50	.64	.82	1.03	1.33	1.82	2.30
Aug	.96	.67	1.16	1977	23	4.03	1977	.04	1986	6.0	3.1	.5	@	.06	.12	.24	.37	.52	.69	.90	1.16	1.53	2.16	2.78
Sep	2.22	1.78	1.94	1978	7	7.43	1978	.01	1975	9.0	5.4	1.3	.3	.07	.16	.38	.66	1.00	1.41	1.94	2.63	3.62	5.36	7.12
Oct	4.08	3.53	3.32	1981	6	8.41	1997	.24	1987	14.1	8.5	2.4	.6	.58	.92	1.50	2.07	2.66	3.31	4.06	4.98	6.22	8.25	10.19
Nov	8.84	8.66	3.50	1950	15	18.39	1973	.92	1976	21.4	15.2	5.9	2.2	2.56	3.40	4.67	5.76	6.83	7.95	9.18	10.63	12.51	15.45	18.19
Dec	8.98	9.77	3.06	1998	2	17.33	1996	2.55	1976	21.7	14.9	6.3	2.6	2.94	3.79	5.05	6.12	7.14	8.20	9.37	10.72	12.47	15.19	17.69
Ann	55.49	57.09	4.20	Feb 1996	8	18.39	Nov 1973	.00	Jul 1984	180.3	114.1	34.9	10.4	37.00	40.49	45.02	48.48	51.58	54.60	57.73	61.21	65.45	71.65	77.05

⁺ 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: 1948-2001

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

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Climate Division: OR 2 NWS Call Sign: Elevation: 22 Feet Lat: 46°06N Lon: 123°12W

										Snov	w (incl	hes)											
						Sn	ow To	tals									Mea	ın 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	2.8	.5	#	0	8.0	1971	13	21.5	1971	14	1971	14	2	1971	1.3	1.0	.4	.2	.0	1.8	.6	.4	.1
Feb	1.5	.0	#	0	6.0	1971	27	9.5	1971	15	1986	14	2	1986	.8	.6	.2	.1	.0	.4	.1	.1	.0
Mar	.4	.0	#	0	4.0	1971	4	5.0	1971	4	1971	4	1	1971	.3	.2	@	.0	.0	.2	.1	.0	.0
Apr	#	.0	0	0	#	1972	17	#	1972	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	.4	.0	#	0	4.0	1978	19	6.0	1978	6	1978	20	1	1985	.3	.2	@	.0	.0	.6	.2	.1	.0
Dec	1.5	.5	#	0	3.0	1971	29	8.0	1972	6	1972	14	2	1972	1.2	.8	.1	.0	.0	1.4	.5	.2	.0
Ann	6.6	1.0	N/A	N/A	8.0	Jan 1971	13	21.5	Jan 1971	15	Feb 1986	14	2+	Feb 1986	3.9	2.8	.7	.3	.0	4.4	1.5	.8	.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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				Freez	e Data										
			Spri	ng Freeze D	ates (Month/	Day)									
Tomn (F)	Probability of later date in spring (thru Jul 31) than indicated(*) Probability of later date in spring (thru Jul 31) than indicated(*) 10														
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	5/28	5/22	5/17	5/14	5/10	5/06	5/03	4/28	4/22						
32	5/04	4/29	4/24	4/21	4/17	4/14	4/11	4/06	4/01						
28	4/04	3/24	3/16	3/09	3/03	2/24	2/18	2/10	1/30						
24	3/05	2/20	2/11	2/03	1/26	1/17	1/07	12/23	0/00						
20	2/15	2/05	1/28	1/21	1/14	1/04	0/00	0/00	0/00						
16	2/03	1/19	1/06	12/22	0/00	0/00	0/00	0/00	0/00						
			Fal	l Freeze Da	tes (Month/D	ay)									
Tomn (F)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	ed(*)							
Temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	9/25	10/01	10/06	10/09	10/13	10/16	10/20	10/24	10/31						
32	10/05	10/13	10/19	10/23	10/28	11/02	11/06	11/12	11/20						
28	10/25	11/03	11/10	11/15	11/21	11/26	12/01	12/08	12/17						
24	11/12	11/25	12/04	12/12	12/21	12/29	1/08	1/24	0/00						
20	12/04	12/18	12/28	1/07	1/17	1/31	0/00	0/00	0/00						
16	12/13	12/28	1/09	1/24	0/00	0/00	0/00	0/00	0/00						
				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	178	170	164	160	155	151	146	140	132						
32	226	215	207	199	193	186	179	171	159						
28	308	292	281	271	262	253	243	232	216						
24	>365	>365	>365	351	332	318	304	289	270						
20	>365	>365	>365	>365	>365	>365	365	332	307						
16	>365	>365	>365	>365	>365	>365	>365	>365	330						

^{*} 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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				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	836	667	624	502	357	222	122	107	202	450	672	836	5597
60	681	527	469	352	213	103	40	31	96	296	522	681	4011
57	588	443	376	265	139	55	15	10	51	210	435	588	3175
55	526	387	317	211	99	31	7	5	30	157	378	526	2674
50	380	256	179	98	31	4	0	0	5	60	246	375	1634
32	37	9	0	0	0	0	0	0	0	0	12	25	83

Base						Coolin	g Degree I	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	224	266	399	489	666	774	932	949	802	573	330	212	6616
55	0	0	3	9	52	115	226	240	142	18	6	0	811
57	0	0	0	4	30	78	172	184	103	8	3	0	582
60	0	0	0	0	11	37	104	111	57	2	0	0	322
65	0	0	0	0	0	6	31	33	14	0	0	0	84
70	0	0	0	0	0	0	5	5	2	0	0	0	12

										Gro	wing	Degre	e Uni	ts (2)										
Base					Growing	g Degree	Units (M	(Ionthly)								Growi	ng Degre	e 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	75	113	194	284	454	574	726	745	613	382	156	70	75	188	382	666	1120	1694	2420	3165	3778	4160	4316	4386
45												23	17	53	128	275	576	1000	1571	2161	2624	2856	2917	2940
50												0	0	4	24	80	236	510	926	1361	1674	1779	1792	1792
55	0	0	0	14	66	130	261	280	174	29	0	0	0	0	0	14	80	210	471	751	925	954	954	954
60	0	0	0	1	23	45	121	137	69	3	0	0	0	0	0	1	24	69	190	327	396	399	399	399
Base	e Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	10	39	88	144	237	304	423	446	50/86 10 39 88 144 237 304 423 446 356 197 48												2047	2244	2292	2300

(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