

Climatology of the United States No. 20

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: KLAMATH FALLS AG STA, OR

1971-2000

COOP ID: 354511

Climate Division: OR 7

NWS Call Sign:

Elevation: 4,092 Feet Lat: 42° 11N

Lon: 121° 44W

Temperature (°F)																					
Mean (1)				Extremes										Degree Days (1) Base Temp 65		Mean Number of 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	40.4	19.9	30.2	57+	1998	1	38.3	1986	-20	1982	7	23.1	1993	1081	0	.0	.0	1.6	3.7	28.5	.6
Feb	45.2	24.9	35.1	67	1986	28	40.1	1995	-12	1950	1	26.8	1989	839	0	.0	.0	7.2	1.4	24.3	.3
Mar	50.8	27.6	39.2	73	1997	26	44.1	1986	8	1956	6	35.3	1985	800	0	.0	.0	15.9	.1	25.2	.0
Apr	57.3	30.5	43.9	85	1987	28	48.7	1987	11	1982	1	37.7	1975	633	0	.0	.0	22.1	.0	19.3	.0
May	65.9	36.4	51.2	94	1986	31	57.5	1992	18	1999	10	45.8	1977	429	1	.0	.2	29.0	.0	8.3	.0
Jun	74.4	43.3	58.9	97	1955	9	64.3	1986	22	2001	4	54.1	1980	207	22	.0	.9	29.9	.0	2.4	.0
Jul	83.1	48.2	65.7	98	1979	20	69.8	1996	31	1999	4	58.2	1993	89	107	.0	6.4	31.0	.0	.1	.0
Aug	83.1	46.1	64.6	102	1981	9	68.8	1986	29	1999	31	58.9	1976	83	70	.1	6.1	31.0	.0	@	.0
Sep	75.5	38.8	57.2	100	1998	4	61.6	1998	20	1950	30	51.5	1986	251	16	@	1.3	29.8	.0	3.0	.0
Oct	64.8	30.3	47.6	89	1996	9	53.5	1988	12	2001	24	41.7	1984	542	0	.0	.0	27.8	.0	19.2	.0
Nov	47.8	24.5	36.2	73	1996	12	42.8	1995	-7	1955	15	27.6	1985	866	0	.0	.0	11.7	1.0	24.8	.1
Dec	39.9	19.4	29.7	62+	1958	11	35.2	1981	-10+	1998	24	22.4	1990	1096	0	.0	.0	1.5	6.0	28.7	1.1
Ann	60.7	32.5	46.6	102	Aug 1981	9	69.8	Jul 1996	-20	Jan 1982	7	22.4	Dec 1990	6916	216	.1	14.9	238.5	12.2	183.8	2.1

+ Also occurred on an earlier date(s)

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

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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1949-2001

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

067-A

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NWS Call Sign:

Elevation: 4,092 Feet Lat: 42°11N

Lon: 121°44W

Precipitation (inches)																								
	Precipitation Totals									Mean Number of Days (3)				Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount										
	Means/ Medians(1)		Extremes							Daily Precipitation				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	1.72	1.68	1.43	2000	11	4.04	2000	.15	1985	14.2	7.4	1.3	.3	.33	.49	.74	.97	1.21	1.46	1.75	2.09	2.55	3.28	3.98
Feb	1.27	1.09	11.10	1951	5	4.25	1986	.15	1988	11.4	5.4	.6	@	.31	.43	.61	.77	.94	1.11	1.30	1.53	1.83	2.31	2.76
Mar	1.17	.99	.79	1957	11	2.48	1983	.26	1999	12.9	4.3	.4	@	.37	.48	.65	.79	.92	1.06	1.22	1.40	1.63	1.99	2.32
Apr	.75	.67	.89	2000	18	2.42	1978	.00	1987	10.6	3.4	.3	.0	.12	.22	.34	.45	.55	.66	.78	.92	1.11	1.41	1.69
May	.80	.66	1.13	1957	18	4.28	1998	.21	1992	9.7	4.2	.3	@	.15	.22	.33	.44	.55	.67	.81	.97	1.19	1.54	1.87
Jun	.67	.60	1.30	1958	23	1.47	1995	.00	1999	6.2	2.7	.1	.0	.09	.18	.29	.38	.48	.58	.69	.82	1.00	1.27	1.54
Jul	.33	.24	.74	1987	18	1.68	1987	.00+	1999	3.7	1.5	.2	.0	.00	.01	.04	.09	.14	.21	.29	.40	.55	.82	1.09
Aug	.58	.44	1.64	1999	11	3.02	1999	.00+	1998	3.4	1.5	.2	.1	.00	.00	.01	.06	.15	.27	.43	.65	.98	1.57	2.19
Sep	.53	.39	1.68	1957	27	2.45	1985	.00+	1999	4.0	1.8	.3	.0	.00	.04	.12	.20	.29	.39	.51	.65	.85	1.19	1.51
Oct	.77	.66	.90	1979	25	2.84	1979	.00	1978	7.2	3.7	.4	.0	.08	.17	.30	.41	.53	.65	.79	.96	1.18	1.54	1.88
Nov	1.78	1.36	1.75	1957	13	4.86	1998	.35	1976	14.2	7.0	1.0	.1	.34	.50	.76	1.01	1.25	1.51	1.81	2.17	2.64	3.41	4.13
Dec	1.59	1.26	1.12	1981	20	4.94	1983	.20	1976	14.1	7.4	1.1	.1	.24	.38	.61	.83	1.05	1.30	1.59	1.94	2.41	3.17	3.90
Ann	11.96	11.40	11.10	Feb 1951	5	4.94	Dec 1983	.00+	Sep 1999	111.6	50.3	6.2	.6	7.77	8.55	9.56	10.34	11.04	11.72	12.43	13.22	14.18	15.59	16.83

+ Also occurred on an earlier date(s)

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: 1949-2001

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

Complete documentation available from:
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COOP ID: 354511

Climate Division: OR 7

NWS Call Sign:

Elevation: 4,092 Feet

Lat: 42° 11N

Lon: 121° 44W

Snow (inches)																							
Snow Totals															Mean Number of Days (1)								
Means/Medians (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	6.2	3.5	2	1	4.1	1988	16	23.7	1988	11	1988	19	6	1988	5.4	1.9	.3	.0	.0	14.1	10.2	5.8	.5
Feb	4.8	4.0	1	#	5.0	1999	14	10.0	1984	13	1999	14	9	1999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
Mar	3.7	2.5	#	#	3.8	1982	31	10.1	1982	4	1997	3	1	1985	4.9	.6	.2	.0	.0	1.4	.4	.0	.0
Apr	2.1	1.6	#	#	6.2	1978	6	8.8	1978	6	1978	6	#+	2000	3.7	.4	.1	.1	.0	.8	.2	.1	.0
May	.4	.1	#	0	1.0	1980	10	1.2	1983	#+	2000	10	#+	2000	.9	.1	.0	.0	.0	.0	.0	.0	.0
Jun	#	.0	0	0	#	1982	5	#	1982	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	.1	1986	27	.1	1986	0	0	0	0	0	.1	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.3	.0	#	0	2.5	1979	30	3.0	1979	3	1979	30	#+	1996	.2	.1	.0	.0	.0	.1	.1	.0	.0
Nov	5.8	4.0	#	#	11.5	1979	26	15.8	1979	9	1979	26	3	1985	4.8	1.8	.4	.1	.1	4.5	1.8	1.0	.0
Dec	11.4	9.4	2	1	7.2	1987	16	34.2	1983	10+	1987	18	4	1985	7.2	3.1	.9	.4	.0	11.6	6.0	4.3	.5
Ann	34.7	25.1	N/A	N/A	11.5	Nov 1979	26	34.2	Dec 1983	13	Feb 1999	14	9	Feb 1999	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9

+ Also occurred on an earlier date(s) #Denotes trace amounts

@ 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

Complete documentation available from:

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Climate Division: OR 7

NWS Call Sign:

Elevation: 4,092 Feet

Lat: 42° 11N

Lon: 121° 44W

Freeze Data									
Spring Freeze Dates (Month/Day)									
Temp (F)	Probability of later date in spring (thru Jul 31) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	7/12	7/07	7/03	6/30	6/27	6/25	6/21	6/18	6/13
32	6/29	6/23	6/18	6/14	6/11	6/07	6/03	5/30	5/24
28	6/17	6/09	6/03	5/29	5/24	5/19	5/14	5/08	4/29
24	5/26	5/18	5/12	5/07	5/02	4/27	4/21	4/15	4/07
20	5/04	4/23	4/16	4/09	4/03	3/28	3/22	3/14	3/03
16	4/08	3/26	3/17	3/10	3/03	2/23	2/16	2/07	1/25
Fall Freeze Dates (Month/Day)									
Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	8/27	9/01	9/04	9/07	9/10	9/12	9/15	9/18	9/23
32	9/05	9/10	9/14	9/17	9/21	9/24	9/27	10/01	10/06
28	9/21	9/26	9/29	10/02	10/05	10/07	10/10	10/13	10/18
24	10/02	10/07	10/11	10/14	10/18	10/21	10/24	10/28	11/02
20	10/18	10/23	10/27	10/30	11/02	11/05	11/08	11/12	11/17
16	10/29	11/05	11/10	11/15	11/19	11/23	11/27	12/02	12/09
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	96	88	83	78	73	69	64	59	51
32	127	118	112	106	101	96	90	84	75
28	158	150	143	138	133	128	123	117	108
24	203	191	182	175	168	161	154	146	134
20	249	236	227	219	212	205	197	188	175
16	304	289	278	269	260	252	243	232	217

* 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 documentation available from:

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Climate Division: OR 7

NWS Call Sign:

Elevation: 4,092 Feet Lat: 42° 11N Lon: 121° 44W

Degree Days to Selected Base Temperatures (° F)													
Base	Heating Degree Days (1)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1081	839	800	633	429	207	89	83	251	542	866	1096	6916
60	926	699	645	483	283	104	31	23	140	390	716	941	5381
57	833	615	552	395	205	60	14	9	90	304	626	848	4551
55	771	559	490	338	159	38	8	3	63	251	566	786	4032
50	616	419	340	206	72	9	0	0	20	139	421	631	2873
32	161	57	15	3	0	0	0	0	0	2	58	154	450

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	103	142	239	361	595	805	1042	1011	755	483	182	81	5799
55	0	0	0	5	41	153	337	301	129	20	0	0	986
57	0	0	0	2	24	115	281	244	95	11	0	0	772
60	0	0	0	0	10	69	204	166	55	4	0	0	508
65	0	0	0	0	1	22	107	70	16	0	0	0	216
70	0	0	0	0	0	4	41	18	3	0	0	0	66

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	3	24	64	163	360	562	796	785	541	257	43	2	3	27	91	254	614	1176	1972	2757	3298	3555	3598	3600
45	0	2	16	80	226	416	641	630	395	144	11	0	0	2	18	98	324	740	1381	2011	2406	2550	2561	2561
50	0	0	0	32	120	275	487	475	259	57	0	0	0	0	0	32	152	427	914	1389	1648	1705	1705	1705
55	0	0	0	5	55	161	340	321	142	16	0	0	0	0	0	5	60	221	561	882	1024	1040	1040	1040
60	0	0	0	0	19	77	196	178	57	1	0	0	0	0	0	0	19	96	292	470	527	528	528	528
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	22	62	137	256	378	504	501	387	242	43	0	0	22	84	221	477	855	1359	1860	2247	2489	2532	2532

(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

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

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.
Complete documentation for the 1971-2000 Normals is available on the internet from:
www.ncdc.noaa.gov/oa/climate/normal/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 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.

- | | |
|---|---|
| <ol style="list-style-type: none">a. Temperature/ Precipitation Tables<ol style="list-style-type: none">1. 1971-2000 Monthly Normals2. Cooperative Summary of the Day3. National Weather Service station records4. 1971-2000 serially complete daily datab. Degree Day Table<ol style="list-style-type: none">1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data | <ol style="list-style-type: none">c. Snow Tables<ol style="list-style-type: none">1. Snow Climatology2. Cooperative Summary of the Dayd. Freeze Data Table
1971-2000 serially complete daily data |
|---|---|

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normal.html
U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normal/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