U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: YAKIMA MUNICIPAL AP, WA **COOP ID: 459465**

Climate Division: WA 8 **NWS Call Sign: YKM** **Elevation: 1,064 Feet** **Lat: 46˚34N** **Lon: 120˚33W**

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	37.7	20.5	29.1	68+	1977	18	38.4	1981	-21	1950	31	13.3	1979	1097	0	.0	.0	4.2	9.5	27.3	1.5
Feb	45.6	24.7	35.2	69	1947	23	41.5	1991	-25	1950	1	26.4	1989	821	0	.0	.0	10.6	3.0	23.0	.6
Mar	56.0	28.9	42.5	80	1960	25	48.1	1992	-1	1960	4	36.8	1971	682	0	.0	.0	26.4	.1	19.7	.0
Apr	64.1	33.2	48.7	92	1977	24	53.4	1990	20	1985	21	43.5	1972	474	1	.0	@	29.7	.0	11.6	.0
May	72.4	40.0	56.2	102	1986	30	61.5	1993	25+	1999	10	50.2	1984	275	18	.1	1.1	31.0	.0	2.9	.0
Jun	79.6	46.2	62.9	105	1992	23	70.0	1992	30+	1984	1	57.6	1976	112	65	.2	4.2	30.0	.0	.2	.0
Jul	87.2	50.9	69.1	108	1971	31	76.1	1998	34	1971	7	63.0	1993	28	171	2.1	13.4	31.0	.0	.0	.0
Aug	86.5	50.1	68.3	110	1971	10	72.6	1986	35	1960	22	64.1	1985	30	148	1.6	11.4	31.0	.0	.0	.0
Sep	77.6	42.3	60.0	100+	1988	3	65.4	1990	24	1985	29	53.7	1985	162	28	@	2.0	30.0	.0	1.3	.0
Oct	64.3	32.9	48.6	88	1992	1	55.1	1988	11	1971	29	45.3	1985	493	0	.0	.0	30.0	.0	12.9	.0
Nov	47.7	26.3	37.0	73	1989	10	42.9	1999	-13	1985	23	21.7	1985	824	0	.0	.0	13.7	1.9	22.2	.3
Dec	37.1	20.5	28.8	67+	1980	26	35.5	1999	-17	1964	17	17.7	1985	1106	0	.0	.0	3.8	9.9	28.1	1.2
Ann	63.0	34.7	48.9	110	Aug 1971	10	76.1	Jul 1998	-25	Feb 1950	1	13.3	Jan 1979	6104	431	4.0	32.1	271.4	24.4	149.2	3.6

\+ 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/normals/usnormals.html

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1946-2001

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

Issue Date: February 2004

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: YAKIMA MUNICIPAL AP, WA **COOP ID: 459465**

Climate Division: WA 8 **NWS Call Sign: YKM** **Elevation: 1,064 Feet** **Lat: 46˚34N** **Lon: 120˚33W**

Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	1.17	1.13	1.36	1963	31	3.68	1995	.09	1985
Feb	.80	.74	.87	1961	1	1.81	1996	.00+	1988
Mar	.70	.59	.73	1987	15	1.95	1983	.01	1973
Apr	.53	.44	1.10	1974	24	1.83	1995	.00	1985
May	.51	.49	.75	1948	19	1.24	1996	.04+	1992
Jun	.62	.43	1.48	1991	20	2.53	1991	.02	1973
Jul	.22	.16	.66	1963	7	.69	1995	.00+	1988
Aug	.36	.16	1.64	1990	21	2.10	1975	.00+	2000
Sep	.39	.26	1.36	1986	15	2.07	1986	.00+	1999
Oct	.53	.39	1.01	1982	28	1.72	1997	.00	1978
Nov	1.05	.91	1.70	1996	19	2.83	1973	.00+	1990
Dec	1.38	1.08	1.38	1996	31	5.59	1996	.07	1976
Ann	8.26	7.89	1.70	Nov 1996	19	5.59	Dec 1996	.00+	Aug 2000

Mean Number of Days (3)

Month	Daily Precipitation >= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	9.4	4.0	.4	.0
Feb	7.7	3.0	.1	.0
Mar	6.9	2.5	.1	.0
Apr	5.0	1.5	.1	@
May	5.6	1.6	.1	.0
Jun	4.8	1.7	.2	.1
Jul	2.6	.7	.0	.0
Aug	2.7	1.1	.1	.1
Sep	3.5	1.2	.1	@
Oct	4.5	1.7	.2	@
Nov	8.8	3.4	.3	.1
Dec	9.4	4.3	.4	.1
Ann	70.9	26.7	2.1	.4

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
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.14	.23	.39	.56	.73	.92	1.15	1.43	1.81	2.44	3.04
Feb	.00	.15	.31	.44	.56	.69	.83	1.00	1.23	1.59	1.93
Mar	.06	.10	.19	.29	.40	.52	.67	.85	1.11	1.53	1.96
Apr	.01	.03	.09	.17	.25	.35	.48	.64	.87	1.27	1.67
May	.06	.10	.17	.24	.31	.40	.50	.63	.80	1.08	1.36
Jun	.02	.05	.12	.20	.30	.41	.55	.74	1.00	1.45	1.91
Jul	.00	.00	.03	.06	.10	.15	.20	.27	.37	.52	.68
Aug	.00	.00	.01	.05	.11	.18	.28	.41	.61	.97	1.35
Sep	.00	.00	.04	.10	.16	.24	.34	.47	.66	.98	1.31
Oct	.01	.05	.12	.20	.28	.38	.50	.65	.86	1.21	1.56
Nov	.00	.23	.45	.62	.77	.93	1.11	1.31	1.58	2.01	2.42
Dec	.10	.19	.37	.56	.77	1.02	1.31	1.68	2.19	3.06	3.92
Ann	4.77	5.40	6.22	6.87	7.46	8.04	8.65	9.34	10.19	11.45	12.56

\+ 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: 1946-2001
(3) Derived from 1971-2000 serially complete daily data

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

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Services

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: YAKIMA MUNICIPAL AP, WA **COOP ID: 459465**

Climate Division: WA 8 **NWS Call Sign: YKM** **Elevation: 1,064 Feet** **Lat: 46°34N** **Lon: 120°33W**

Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	7.0	6.1	3	1	10.4	1979	10	17.8	2000	21	1997	1	11+	1997	5.2	2.5	.6	.1	@	15.8	12.1	7.8	2.8
Feb	3.3	1.9	1	1	7.5	1994	24	11.4	1989	11+	1980	16	7	1980	2.6	1.1	.3	@	.0	6.0	4.0	2.9	.4
Mar	1.3	.0	#	0	3.9	1989	5	11.5	1971	6+	1993	3	1	1993	1.1	.5	.1	.0	.0	.5	.2	.1	.0
Apr	.0	.0	0	0	.2	1993	6	.2	1993	#	1972	8	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
May	#	.0	#	0	#	1986	10	#+	1986	0	0	0	#	1997	.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	.2	.0	0	0	2.4	1973	31	2.9	1991	#+	1992	16	0	0	.2	.1	.0	.0	.0	.0	.0	.0	.0
Nov	3.3	1.2	#	0	14.8	1996	19	23.5	1996	16	1996	19	5	1996	2.0	.9	.4	.1	.1	1.7	1.3	.7	.4
Dec	9.5	7.2	2	1	12.0	1996	29	34.5	1996	27	1996	29	11	1996	5.6	2.9	1.1	.4	@	12.6	9.0	5.6	1.0
Ann	24.6	16.4	N/A	N/A	14.8	Nov 1996	19	34.5	Dec 1996	27	Dec 1996	29	11+	Jan 1997	16.7	8.0	2.5	.6	.1	36.6	26.6	17.1	4.6

+ 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:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: YAKIMA MUNICIPAL AP, WA **COOP ID: 459465**

Climate Division: WA 8 **NWS Call Sign: YKM** **Elevation: 1,064 Feet** **Lat: 46˚34N** **Lon: 120˚33W**

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	6/29	6/22	6/17	6/12	6/08	6/04	5/31	5/26	5/18
32	6/01	5/26	5/22	5/18	5/14	5/11	5/07	5/02	4/26
28	5/09	5/03	4/29	4/26	4/22	4/19	4/16	4/11	4/06
24	4/24	4/15	4/09	4/04	3/30	3/25	3/19	3/13	3/04
20	3/28	3/18	3/11	3/04	2/26	2/20	2/14	2/06	1/27
16	2/28	2/19	2/13	2/07	2/02	1/28	1/22	1/16	1/07

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	9/03	9/08	9/11	9/14	9/17	9/19	9/22	9/26	9/30
32	9/21	9/24	9/27	9/29	10/01	10/03	10/06	10/08	10/12
28	10/01	10/06	10/09	10/12	10/15	10/18	10/20	10/24	10/29
24	10/13	10/18	10/22	10/26	10/29	11/01	11/05	11/09	11/14
20	10/19	10/27	11/02	11/07	11/12	11/17	11/22	11/28	12/06
16	11/01	11/10	11/16	11/21	11/26	12/01	12/06	12/13	12/21

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	122	114	109	104	100	95	90	85	77
32	160	153	148	143	139	135	131	126	119
28	199	191	185	180	175	170	165	159	150
24	245	234	226	219	213	206	199	191	180
20	297	284	274	266	258	250	242	232	219
16	338	322	311	302	294	287	278	268	255

***** 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:
www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: YAKIMA MUNICIPAL AP, WA **COOP ID: 459465**

Climate Division: WA 8 **NWS Call Sign: YKM** **Elevation: 1,064 Feet** **Lat: 46˚34N** **Lon: 120˚33W**

Degree Days to Selected Base Temperatures (˚F)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1097	821	682	474	275	112	28	30	162	493	824	1106	6104
60	958	696	545	345	167	51	11	11	107	356	690	968	4905
57	865	612	452	263	112	25	4	3	66	267	602	875	4146
55	803	556	391	212	81	14	1	2	45	213	546	813	3677
50	660	422	246	109	28	2	0	0	14	100	409	661	2651
32	226	72	5	0	0	0	0	0	0	1	80	211	595

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	82	158	354	530	784	961	1182	1157	862	537	207	69	6883
55	0	0	0	24	127	277	469	444	194	23	1	0	1559
57	0	0	0	14	93	224	408	383	149	13	0	0	1284
60	0	0	0	6	55	155	320	293	93	5	0	0	927
65	0	0	0	1	18	65	171	148	28	0	0	0	431
70	0	0	0	0	4	21	86	70	4	0	0	0	185

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	10	37	137	302	544	729	942	916	630	304	65	7	10	47	184	486	1030	1759	2701	3617	4247	4551	4616	4623
45	0	8	46	170	391	579	787	761	480	170	19	2	0	8	54	224	615	1194	1981	2742	3222	3392	3411	3413
50	0	0	7	75	244	429	632	606	336	74	2	0	0	0	7	82	326	755	1387	1993	2329	2403	2405	2405
55	0	0	0	23	132	283	478	451	200	25	0	0	0	0	0	23	155	438	916	1367	1567	1592	1592	1592
60	0	0	0	4	61	159	328	302	100	7	0	0	0	0	0	4	65	224	552	854	954	961	961	961
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	6	29	111	224	358	467	591	576	420	234	46	4	6	35	146	370	728	1195	1786	2362	2782	3016	3062	3066

(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.
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

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

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   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