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: DARRINGTON RANGER STN, WA **COOP ID: 451992**

Climate Division: WA 4 **NWS Call Sign:** **Elevation: 550 Feet** **Lat: 48˚16N** **Lon: 121˚36W**

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	41.5	29.2	35.4	74	1940	31	41.1	1983	-14	1950	25	29.2	1979	919	0	.0	.0	2.5	2.3	21.7	.2
Feb	46.8	30.9	38.9	70+	1938	28	43.8	1983	-11	1950	1	31.7	1989	733	0	.0	.0	9.0	.5	18.1	@
Mar	53.3	34.3	43.8	80+	1940	26	51.0	1992	0	1955	4	39.2	1971	657	0	.0	.0	19.4	@	14.0	.0
Apr	60.8	38.0	49.4	91+	1987	28	54.3	1992	20+	1951	20	45.1	1975	467	0	.0	@	26.6	.0	5.8	.0
May	67.8	43.8	55.8	103	1983	29	61.5	1992	25	1954	1	51.5	1974	293	7	.1	.6	30.4	.0	.6	.0
Jun	71.9	48.7	60.3	102	1942	30	64.8	1992	31+	1952	13	56.8	1976	157	15	.0	1.2	30.0	.0	.0	.0
Jul	78.1	52.2	65.2	104+	1944	18	70.1	1985	34+	1932	6	61.1	1993	68	73	.2	3.1	31.0	.0	.0	.0
Aug	78.9	51.8	65.4	105	1936	28	69.7	1981	33	1939	6	60.9	1973	71	82	.2	3.1	31.0	.0	.0	.0
Sep	73.2	46.4	59.8	104	1988	4	65.2	1995	29+	1934	27	55.0	1972	184	27	.1	.9	29.9	.0	.3	.0
Oct	61.5	39.1	50.3	90	1943	3	53.6	1988	19	1935	31	47.9	1984	456	0	.0	.0	28.0	.0	5.3	.0
Nov	47.4	34.6	41.0	77+	1949	3	44.7	1974	-4	1955	15	30.6	1985	720	0	.0	.0	11.8	.5	12.3	@
Dec	41.0	30.1	35.6	65	1980	27	40.7	1991	-10	1968	29	28.9	1983	914	0	.0	.0	2.2	2.5	22.0	.2
Ann	60.2	39.9	50.1	105	Aug 1936	28	70.1	Jul 1985	-14	Jan 1950	25	28.9	Dec 1983	5639	204	.6	8.9	251.8	5.8	100.1	.4

\+ 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: 1931-2001

(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: DARRINGTON RANGER STN, WA **COOP ID: 451992**

Climate Division: WA 4 **NWS Call Sign:** **Elevation: 550 Feet** **Lat: 48˚16N** **Lon: 121˚36W**

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	11.16	11.39	4.65	1997	2	23.19	1974	1.14	1985
Feb	9.43	9.46	6.30	1972	28	19.29	1972	.31	1993
Mar	8.39	8.37	4.52	1997	19	19.92	1997	1.25	1992
Apr	5.32	5.11	2.68	1996	24	10.10	1981	1.51	1999
May	3.96	3.61	3.20	1965	17	10.27	1984	.66	1992
Jun	3.00	2.54	2.47	2000	12	5.67	1983	.75	1996
Jul	1.80	1.54	2.44	1934	16	5.94	1983	.00+	1985
Aug	1.80	1.29	3.17	2001	23	5.35	1975	.05	1981
Sep	3.51	3.35	3.90	1931	5	9.96	1972	.01	1990
Oct	7.12	6.80	4.17	1955	25	18.87	1975	.17	1987
Nov	13.34	13.93	5.24	1999	12	26.52	1990	2.32	1979
Dec	12.15	12.32	4.43	1937	28	24.70	1979	2.27	1985
Ann	80.98	82.32	6.30	Feb 1972	28	26.52	Nov 1990	.00+	Jul 1985

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	15.0	11.6	6.7	3.5
Feb	13.8	10.6	5.5	2.7
Mar	14.9	11.5	5.3	1.9
Apr	12.6	8.6	2.4	.7
May	12.0	7.4	2.0	.5
Jun	11.6	7.0	1.4	.4
Jul	7.5	4.0	1.2	.2
Aug	7.2	4.0	1.2	.3
Sep	9.5	6.1	2.3	.9
Oct	12.1	9.0	4.8	2.0
Nov	15.8	12.8	7.7	3.5
Dec	15.2	12.3	6.2	3.2
Ann	147.2	104.9	46.7	19.8

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	3.03	4.08	5.70	7.11	8.49	9.94	11.55	13.46	15.94	19.83	23.47
Feb	2.55	3.45	4.81	6.00	7.17	8.40	9.76	11.37	13.47	16.76	19.83
Mar	2.94	3.74	4.88	5.85	6.78	7.73	8.76	9.97	11.51	13.90	16.09
Apr	2.05	2.54	3.25	3.83	4.39	4.95	5.57	6.28	7.18	8.56	9.83
May	1.24	1.62	2.18	2.65	3.12	3.60	4.12	4.74	5.54	6.78	7.93
Jun	.93	1.21	1.64	2.00	2.35	2.72	3.12	3.59	4.19	5.14	6.01
Jul	.00	.28	.63	.92	1.21	1.51	1.86	2.25	2.80	3.67	4.50
Aug	.17	.30	.54	.79	1.06	1.37	1.74	2.20	2.83	3.88	4.90
Sep	.20	.40	.82	1.29	1.83	2.47	3.24	4.23	5.62	7.99	10.35
Oct	1.01	1.60	2.62	3.61	4.64	5.78	7.09	8.70	10.88	14.42	17.83
Nov	4.32	5.58	7.45	9.04	10.57	12.16	13.90	15.93	18.55	22.62	26.38
Dec	4.31	5.45	7.11	8.51	9.84	11.21	12.70	14.43	16.65	20.07	23.22
Ann	57.18	61.78	67.67	72.15	76.13	79.98	83.96	88.36	93.71	101.46	108.17

\+ 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: 1931-2001
(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: DARRINGTON RANGER STN, WA **COOP ID: 451992**

Climate Division: WA 4 **NWS Call Sign:** **Elevation: 550 Feet** **Lat: 48°16N** **Lon: 121°36W**

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	8.9	.5	3	1	13.0	1972	11	49.5	1972	33	1972	26	24	1972	2.3	1.6	.9	.7	.2	-9.9	-9.9	-9.9	-9.9
Feb	4.3	1.8	2	#	10.0	1986	17	21.3	1971	30	1985	10	21	1972	1.9	1.3	.7	.3	@	1.5	1.0	.3	.0
Mar	1.5	.0	1	#	15.0	1971	4	15.0	1971	22	1989	3	17	1989	.7	.4	.2	.1	@	1.5	.8	.4	.1
Apr	.0	.0	#	0	.4	1982	15	.4	1982	4	1976	12	#+	1988	.1	.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	.5	1971	30	.5	1971	0	0	0	0	0	@	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.7	.0	1	0	12.5	1985	27	12.5	1985	16	1985	27	7	1993	.4	.3	@	@	@	.3	.1	.0	.0
Dec	3.2	.0	1	#	8.5	1975	13	13.3	1975	23	1996	31	9	1971	1.3	.8	.4	.1	.0	.9	.7	.4	.0
Ann	18.6	2.3	N/A	N/A	15.0	Mar 1971	4	49.5	Jan 1972	33	Jan 1972	26	24	Jan 1972	6.7	4.4	2.2	1.2	.2	-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:
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: DARRINGTON RANGER STN, WA **COOP ID: 451992**

Climate Division: WA 4 **NWS Call Sign:** **Elevation: 550 Feet** **Lat: 48˚16N** **Lon: 121˚36W**

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	6/08	6/02	5/28	5/25	5/21	5/17	5/14	5/09	5/03
32	5/15	5/08	5/03	4/29	4/25	4/22	4/18	4/13	4/06
28	4/21	4/11	4/04	3/30	3/24	3/19	3/13	3/06	2/25
24	3/25	3/14	3/07	2/28	2/22	2/16	2/10	2/03	1/23
20	3/05	2/24	2/18	2/12	2/07	2/02	1/27	1/19	1/04
16	2/27	2/16	2/07	1/31	1/24	1/16	1/07	12/25	0/00

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	9/12	9/18	9/22	9/26	9/29	10/02	10/06	10/10	10/16
32	9/30	10/05	10/08	10/11	10/14	10/16	10/19	10/23	10/27
28	10/12	10/21	10/27	11/02	11/07	11/12	11/17	11/24	12/03
24	10/26	11/05	11/11	11/17	11/23	11/28	12/04	12/10	12/20
20	11/05	11/18	11/27	12/06	12/13	12/21	12/30	1/10	1/31
16	11/26	12/08	12/17	12/24	1/01	1/09	1/18	2/02	0/00

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	153	145	139	135	130	126	121	116	108
32	194	186	180	175	171	166	161	155	147
28	266	253	243	235	227	219	210	201	187
24	319	303	291	282	272	263	254	242	226
20	>365	347	331	320	311	302	293	283	269
16	>365	>365	>365	361	343	330	319	307	292

***** 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: DARRINGTON RANGER STN, WA **COOP ID: 451992**

Climate Division: WA 4 **NWS Call Sign:** **Elevation: 550 Feet** **Lat: 48˚16N** **Lon: 121˚36W**

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	919	733	657	467	293	157	68	71	184	456	720	914	5639
60	764	593	502	319	164	62	15	18	88	302	570	759	4156
57	671	509	409	234	106	27	5	7	47	214	480	666	3375
55	609	453	351	182	74	14	1	2	28	160	421	604	2899
50	454	318	213	80	22	1	0	0	5	57	283	451	1884
32	52	18	4	0	0	0	0	0	0	0	17	55	146

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	157	209	370	523	737	848	1028	1034	833	567	287	165	6758
55	0	0	4	15	98	172	316	323	171	14	2	0	1115
57	0	0	0	7	68	125	258	266	130	6	0	0	860
60	0	0	0	2	33	70	175	184	81	1	0	0	546
65	0	0	0	0	7	15	73	82	27	0	0	0	204
70	0	0	0	0	0	1	17	22	6	0	0	0	46

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	15	47	127	264	461	590	760	766	576	297	84	20	15	62	189	453	914	1504	2264	3030	3606	3903	3987	4007
45	0	7	44	139	306	440	605	611	426	158	25	1	0	7	51	190	496	936	1541	2152	2578	2736	2761	2762
50	0	0	5	57	178	292	450	456	281	65	2	0	0	0	5	62	240	532	982	1438	1719	1784	1786	1786
55	0	0	0	21	82	160	297	303	149	16	0	0	0	0	0	21	103	263	560	863	1012	1028	1028	1028
60	0	0	0	3	34	73	169	164	63	2	0	0	0	0	0	3	37	110	279	443	506	508	508	508
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	1	28	78	159	268	331	456	463	346	171	26	1	1	29	107	266	534	865	1321	1784	2130	2301	2327	2328

(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