

# Climatography of the United States No. 20

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

Station: ARBON 2 NW, ID

1971-2000

COOP ID: 100347

Climate Division: ID10

NWS Call Sign:

Elevation: 5,210 Feet Lat: 42° 30N

Lon: 112° 35W

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	30.2	14.6	22.4	55	1990	10	30.2	1994	-28+	1984	18	11.6	1979	1320	0	.0	.0	.2	17.4	30.5	4.0
Feb	34.9	18.1	26.5	62	1963	5	35.9	1992	-32	1982	5	15.9	1985	1077	0	.0	.0	2.1	8.4	26.8	2.5
Mar	45.1	25.0	35.1	74	1986	28	42.9	1986	-8	1993	1	27.2	1985	929	0	.0	.0	10.1	1.3	26.1	.3
Apr	56.2	30.4	43.3	83+	1994	21	50.0	1987	8	1966	19	35.7	1975	650	0	.0	.0	22.8	.1	18.5	.0
May	65.8	36.9	51.4	89+	2001	25	56.2	1992	15	1972	1	47.3	1975	424	1	.0	.0	29.8	.0	7.7	.0
Jun	76.0	43.6	59.8	99	1988	25	67.3	1988	23	1989	21	54.4	1998	192	36	.0	2.6	29.9	.0	1.3	.0
Jul	84.9	49.1	67.0	101+	2000	31	71.4	1988	31+	1981	8	58.3	1993	55	117	.1	10.2	31.0	.0	.2	.0
Aug	84.2	48.5	66.4	100+	1981	8	71.0	2000	23	1992	25	62.1	1975	59	101	.1	8.8	31.0	.0	.3	.0
Sep	74.1	40.3	57.2	93+	1990	11	63.7	1990	15	2000	24	51.5	1971	253	18	.0	1.3	29.6	.0	5.1	.0
Oct	60.4	31.6	46.0	88	1992	1	53.3	1988	3	1970	27	40.0	1984	589	0	.0	.0	26.5	.2	16.7	.0
Nov	41.9	22.9	32.4	69	1999	6	40.8	1999	-15	1991	3	24.5	2000	978	0	.0	.0	8.2	4.9	26.0	.9
Dec	31.7	15.1	23.4	56	1983	9	30.6	1995	-37	1990	23	13.4	1990	1290	0	.0	.0	.6	14.6	30.4	3.2
Ann	57.1	31.3	44.2	101+	Jul 2000	31	71.4	Jul 1988	-37	Dec 1990	23	11.6	Jan 1979	7816	273	.2	22.9	221.8	46.9	189.6	10.9

+ 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](http://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: 1962-2001

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

004-A

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## No. 20 1971-2000

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**Station: ARBON 2 NW, ID**

**COOP ID: 100347**

**Climate Division: ID10**

**NWS Call Sign:**

**Elevation: 5,210 Feet Lat: 42°30N**

**Lon: 112°35W**

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	1.57	1.53	1980	13	6.23	1980	.03	1992	9.8	6.5	.6	@	.25	.40	.65	.89	1.13	1.41	1.72	2.10	2.62	3.46	4.26
Feb	1.51	1.41	2.00	1963	1	5.76	1986	.33	1990	8.6	5.5	.4	.0	.34	.48	.70	.90	1.10	1.31	1.55	1.83	2.20	2.79	3.35
Mar	1.64	1.46	1.25	1990	5	3.39	1982	.31	1999	7.9	5.4	.8	.1	.53	.68	.91	1.11	1.30	1.50	1.71	1.96	2.29	2.79	3.26
Apr	1.44	1.47	.80	1991	16	3.07	1983	.29	1977	7.7	5.0	.5	.0	.41	.54	.75	.93	1.10	1.29	1.49	1.73	2.04	2.52	2.98
May	1.95	1.58	1.63	1981	21	5.12	1996	.52	1979	9.5	6.3	.7	.2	.42	.60	.89	1.15	1.41	1.68	2.00	2.37	2.86	3.64	4.38
Jun	1.24	1.01	1.20	1973	14	2.45	1999	.06	1994	5.6	3.7	.7	@	.18	.29	.46	.64	.82	1.01	1.24	1.52	1.89	2.50	3.08
Jul	.98	.77	1.80	1983	23	3.99	1983	.00	1971	4.8	2.8	.5	.1	.03	.11	.25	.39	.55	.72	.93	1.20	1.56	2.18	2.78
Aug	.94	.75	1.25	1993	21	2.39	1993	.05	1996	5.1	3.2	.4	@	.09	.16	.29	.42	.57	.73	.92	1.15	1.47	2.01	2.53
Sep	1.00	.65	1.65	1983	8	3.80	1982	.00	1987	4.7	3.1	.4	.1	.01	.05	.15	.28	.44	.63	.87	1.19	1.64	2.44	3.24
Oct	1.11	.93	1.24	1975	26	3.20	1981	.00+	1988	5.1	3.7	.4	.1	.00	.12	.33	.50	.68	.88	1.11	1.38	1.75	2.36	2.95
Nov	1.42	1.26	1.30	2001	29	3.47	1988	.04	1976	7.3	5.3	.4	.0	.22	.34	.55	.75	.95	1.17	1.42	1.73	2.14	2.82	3.46
Dec	1.39	1.22	3.20	1964	23	3.55	1981	.13	1979	8.4	5.2	.3	.1	.15	.26	.45	.65	.85	1.09	1.36	1.70	2.16	2.93	3.67
Ann	16.34	15.91	3.20	Dec 1964	23	6.23	Jan 1980	.00+	Oct 1988	84.5	55.7	6.1	.7	9.77	10.96	12.53	13.75	14.85	15.93	17.07	18.34	19.91	22.23	24.27

+ 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: 1962-2001

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

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

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Station: ARBON 2 NW, ID

COOP ID: 100347

Climate Division: ID10

NWS Call Sign:

Elevation: 5,210 Feet

Lat: 42° 30N

Lon: 112° 35W

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	14.0	10.0	13	11	16.0	1979	11	29.0	1971	40	1982	22	35	1982	3.8	3.6	2.0	1.0	.2	-9.9	-9.9	-9.9	-9.9
Feb	12.1	12.0	9	3	12.0	1986	13	23.0	1986	38	1982	2	25	1982	2.7	2.7	1.4	.4	.1	-9.9	-9.9	-9.9	-9.9
Mar	4.2	3.0	1	0	8.0	1985	2	12.0	1990	8	1988	16	4	1976	1.5	1.5	.9	.3	.0	-9.9	-9.9	-9.9	-9.9
Apr	1.8	.0	#	0	6.0	1973	1	9.0	1971	6	1973	1	#+	1999	.6	.4	.2	.1	.0	.2	.1	.1	.0
May	.6	.0	#	0	4.0	1975	4	4.0	1975	4	1975	4	#+	1991	.2	.2	.1	.0	.0	.1	.1	.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	.1	.0	0	0	3.0	1982	30	3.0	1982	0	0	0	0	0	@	@	@	.0	.0	.0	.0	.0	.0
Oct	1.3	.0	#	0	6.0	1975	23	10.0	1975	4	1996	24	#+	1999	.4	.3	.2	@	.0	.1	.0	.0	.0
Nov	12.6	14.0	1	#	9.0	1991	29	18.0	1975	15	1975	30	7	1992	2.2	2.1	1.2	.3	.0	-9.9	-9.9	-9.9	-9.9
Dec	5.8	-99.9	6	2	13.0	1990	25	29.0	1987	30	1971	28	24	1992	3.2	2.9	1.8	.8	.2	-9.9	-9.9	-9.9	-9.9
Ann	52.5	-9.9	N/A	N/A	16.0	Jan 1979	11	29.0+	Dec 1987	40	Jan 1982	22	35	Jan 1982	14.6	13.7	7.8	2.9	.5	-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/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

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**NWS Call Sign:**

**Elevation: 5,210 Feet**

**Lat: 42° 30N**

**Lon: 112° 35W**

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	7/15	7/09	7/05	7/01	6/28	6/24	6/21	6/17	6/11
32	7/04	6/27	6/21	6/17	6/12	6/08	6/03	5/29	5/21
28	6/09	6/02	5/28	5/24	5/20	5/15	5/11	5/06	4/29
24	5/26	5/19	5/13	5/09	5/05	5/01	4/26	4/21	4/14
20	5/01	4/25	4/21	4/17	4/14	4/10	4/06	4/02	3/27
16	4/17	4/08	4/01	3/26	3/21	3/16	3/10	3/03	2/22
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	8/12	8/19	8/23	8/27	8/31	9/03	9/07	9/11	9/18
32	8/24	8/30	9/04	9/07	9/11	9/14	9/18	9/23	9/29
28	9/08	9/13	9/17	9/20	9/23	9/26	9/29	10/03	10/08
24	9/15	9/22	9/26	10/01	10/04	10/08	10/12	10/17	10/24
20	9/26	10/03	10/07	10/11	10/15	10/19	10/23	10/27	11/03
16	10/07	10/14	10/19	10/23	10/26	10/30	11/03	11/08	11/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	91	81	74	68	63	57	52	45	35
32	120	110	102	96	90	84	77	70	59
28	152	143	136	131	126	121	115	109	100
24	178	169	163	157	152	147	141	134	125
20	206	198	193	188	184	180	175	169	162
16	255	243	234	226	219	211	204	195	182

\* 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: ID10      NWS Call Sign:      Elevation: 5,210 Feet    Lat: 42° 30N      Lon: 112° 35W**

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	1320	1077	929	650	424	192	55	59	253	589	978	1290	7816
60	1165	937	774	502	277	99	15	15	142	435	828	1135	6324
57	1072	853	681	417	198	59	5	5	91	345	738	1042	5506
55	1010	797	619	362	152	39	2	2	64	288	678	980	4993
50	855	657	473	237	66	10	0	0	21	164	531	825	3839
32	344	226	87	14	0	0	0	0	0	3	124	312	1110

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	47	74	181	354	600	834	1085	1065	755	437	136	45	5613
55	0	0	1	12	39	183	374	354	129	9	0	0	1101
57	0	0	0	7	23	143	315	295	96	4	0	0	883
60	0	0	0	1	9	93	232	212	57	1	0	0	605
65	0	0	0	0	1	36	117	101	18	0	0	0	273
70	0	0	0	0	0	10	43	32	4	0	0	0	89

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	0	3	38	159	376	616	865	844	538	244	32	0	0	3	41	200	576	1192	2057	2901	3439	3683	3715	3715
45	0	0	5	77	234	468	710	689	396	130	9	0	0	0	5	82	316	784	1494	2183	2579	2709	2718	2718
50	0	0	0	27	122	323	555	534	259	53	0	0	0	0	0	27	149	472	1027	1561	1820	1873	1873	1873
55	0	0	0	8	51	195	401	380	143	13	0	0	0	0	0	8	59	254	655	1035	1178	1191	1191	1191
60	0	0	0	0	13	97	254	233	60	1	0	0	0	0	0	0	13	110	364	597	657	658	658	658
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	5	36	136	268	412	560	556	389	202	26	0	0	5	41	177	445	857	1417	1973	2362	2564	2590	2590

(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](http://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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)