

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: ARROWROCK DAM, ID

1971-2000

COOP ID: 100448

Climate Division: ID 4

NWS Call Sign:

Elevation: 3,275 Feet Lat: 43° 37N

Lon: 115° 55W

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	34.7	21.3	28.0	55	1990	8	34.9	1998	-20+	1957	28	17.5	1979	1147	0	.0	.0	.5	11.3	28.5	1.5
Feb	41.5	24.9	33.2	67	1992	29	39.7	1995	-20	1950	3	21.9	1989	891	0	.0	.0	4.4	3.9	24.2	1.0
Mar	50.9	31.2	41.1	77	1986	28	47.1	1992	-1	1971	2	33.0	1976	742	0	.0	.0	17.2	.4	21.2	.1
Apr	60.3	36.7	48.5	92	1987	28	54.6	1987	8	1936	1	41.7	1975	495	0	.0	@	25.3	.0	9.9	.0
May	69.6	43.5	56.6	98	1919	28	61.9	1987	21	1972	1	51.0	1977	278	16	.0	.8	30.3	.0	1.3	.0
Jun	79.4	50.5	65.0	108	1940	19	71.0	1986	32+	1945	14	59.8	1993	102	100	.4	5.3	30.0	.0	.0	.0
Jul	89.2	56.8	73.0	112	1934	29	77.8	1985	37	1999	8	63.6	1993	17	266	2.3	17.0	31.0	.0	.0	.0
Aug	89.0	56.2	72.6	109	1961	3	78.0	1971	36	1932	30	67.7	1993	19	254	2.1	16.2	31.0	.0	.0	.0
Sep	77.6	46.9	62.3	105	1950	4	68.7	1990	21+	1926	25	56.0	1985	153	70	.1	3.7	30.0	.0	.6	.0
Oct	63.8	37.8	50.8	94	1992	1	58.6	1988	16+	1971	30	46.5	1985	442	2	.0	.1	28.1	.0	7.8	.0
Nov	45.3	29.8	37.6	73	1988	1	44.0	1999	-6	1955	15	29.4	1985	824	0	.0	.0	8.6	1.8	20.6	.1
Dec	35.4	22.4	28.9	59+	1999	1	34.5	1973	-18+	1990	23	18.3	1985	1118	0	.0	.0	.9	9.4	27.6	1.0
Ann	61.4	38.2	49.8	112	Jul 1934	29	78.0	Aug 1971	-20+	Jan 1957	28	17.5	Jan 1979	6228	708	4.9	43.1	237.3	26.8	141.7	3.7

+ 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: 1916-2001

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

006-A

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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	2.87	2.83	2.20	1953	18	6.55	1998	.17	1985	10.5	6.3	1.9	.4	.54	.80	1.22	1.61	2.01	2.43	2.92	3.50	4.28	5.52	6.71
Feb	2.43	2.08	1.53	1975	13	8.48	1986	.50	1991	9.4	6.1	1.2	.3	.57	.79	1.15	1.47	1.78	2.12	2.50	2.95	3.54	4.48	5.36
Mar	2.01	1.85	1.14	1998	23	4.84	1983	.14	1994	9.7	6.0	.7	.1	.48	.67	.97	1.23	1.49	1.76	2.07	2.43	2.91	3.67	4.38
Apr	1.52	1.63	1.37	1973	14	3.33	1990	.15	1987	9.0	4.6	.5	.1	.35	.49	.71	.91	1.11	1.32	1.56	1.84	2.22	2.81	3.36
May	1.41	1.22	1.26	1990	29	5.06	1998	.00	1992	8.1	4.1	.5	.1	.11	.27	.50	.70	.92	1.15	1.42	1.74	2.18	2.88	3.56
Jun	.95	.77	1.44	1938	30	2.19	1995	.19	1996	6.0	2.6	.4	@	.18	.27	.40	.53	.66	.80	.96	1.15	1.41	1.82	2.21
Jul	.40	.31	1.20	1938	5	1.53	1978	.00+	1999	3.1	1.3	.2	@	.00	.00	.05	.11	.17	.25	.35	.48	.66	.97	1.29
Aug	.33	.20	1.08	1941	12	1.99	1976	.00+	1998	2.7	1.1	.0	.0	.00	.00	.03	.07	.13	.19	.28	.39	.55	.83	1.11
Sep	.85	.70	1.69	1959	26	3.70	1986	.00+	1999	4.3	2.5	.3	.1	.00	.00	.09	.23	.38	.56	.77	1.05	1.43	2.06	2.70
Oct	1.07	1.01	1.35	1985	23	3.08	1975	.00+	1988	5.7	3.0	.4	.1	.00	.00	.37	.56	.73	.92	1.12	1.37	1.67	2.17	2.65
Nov	2.70	2.46	2.05	1971	27	6.50	1988	.06	1976	10.5	6.7	1.4	.1	.46	.69	1.08	1.45	1.84	2.25	2.72	3.30	4.06	5.31	6.49
Dec	2.96	2.87	1.68	1957	20	9.90	1996	.12	1976	10.6	7.3	1.5	.3	.32	.54	.95	1.37	1.81	2.30	2.89	3.61	4.60	6.23	7.82
Ann	19.50	19.36	2.20	Jan 1953	18	9.90	Dec 1996	.00+	Sep 1999	89.6	51.6	9.0	1.6	12.49	13.79	15.49	16.80	17.97	19.11	20.31	21.64	23.27	25.66	27.75

+ 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: 1916-2001

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

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Station: ARROWROCK DAM, ID

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Climate Division: ID 4

NWS Call Sign:

Elevation: 3,275 Feet

Lat: 43°37N

Lon: 115°55W

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	12.0	10.2	7	5	12.0	1976	5	41.0	1982	36	1982	4	24	1989	4.7	3.8	1.4	.7	.2	21.7	17.5	14.3	9.7
Feb	6.5	6.0	4	2	8.0	1986	13	24.4	1990	21	1989	17	17	1989	3.1	2.6	1.0	.2	.0	15.7	12.1	9.1	4.7
Mar	2.3	.8	1	#	8.0	1972	2	16.0	1985	15	1993	1	5	1976	.9	.7	.3	.1	.0	4.9	2.9	1.5	.6
Apr	.1	.0	#	0	1.5	1982	6	2.0	1982	2	1982	6	#+	1999	.1	@	.0	.0	.0	.1	.0	.0	.0
May	#	.0	#	0	#	1986	14	#+	1986	#	1986	11	#	1986	.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	.1	.0	#	0	3.0	1975	27	3.0	1975	3	1975	27	#+	1991	.1	.1	@	.0	.0	.1	@	.0	.0
Nov	4.5	3.0	1	#	8.0	1975	27	25.5	1973	18	1973	26	4	1994	2.1	1.9	.8	.2	.0	4.0	2.3	1.4	.3
Dec	12.6	9.3	3	2	12.0	1971	5	50.0	1971	36	1971	15	16	1971	5.0	4.2	1.6	.5	.1	15.1	10.2	7.8	3.0
Ann	38.1	29.3	N/A	N/A	12.0+	Jan 1976	5	50.0	Dec 1971	36+	Jan 1982	4	24	Jan 1989	16.0	13.3	5.1	1.7	.3	61.6	45.0	34.1	18.3

+ 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

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Lat: 43° 37N

Lon: 115° 55W

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	6/03	5/31	5/27	5/24	5/21	5/18	5/14	5/09
32	5/20	5/14	5/09	5/06	5/02	4/28	4/25	4/20	4/14
28	5/02	4/24	4/19	4/14	4/10	4/05	4/01	3/26	3/18
24	4/11	4/02	3/26	3/21	3/15	3/10	3/05	2/26	2/17
20	3/22	3/14	3/08	3/04	2/27	2/23	2/18	2/12	2/04
16	3/08	3/01	2/23	2/19	2/14	2/10	2/06	1/31	1/24
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	9/14	9/19	9/22	9/25	9/28	10/01	10/04	10/07	10/12
32	9/21	9/26	9/30	10/03	10/06	10/09	10/13	10/17	10/22
28	10/03	10/09	10/14	10/18	10/21	10/25	10/29	11/03	11/09
24	10/24	10/29	11/03	11/06	11/10	11/13	11/17	11/21	11/27
20	11/06	11/11	11/15	11/18	11/22	11/25	11/28	12/02	12/07
16	11/13	11/20	11/24	11/28	12/02	12/05	12/09	12/14	12/20
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	143	137	133	129	126	122	119	115	109
32	182	173	167	162	157	152	146	140	131
28	222	212	205	199	194	188	182	175	166
24	272	261	252	245	239	232	225	217	205
20	292	283	277	272	267	262	256	250	242
16	320	309	302	295	289	283	277	269	259

* 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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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	1147	891	742	495	278	102	17	19	153	442	824	1118	6228
60	992	751	587	352	159	42	3	4	76	296	674	963	4899
57	899	667	494	271	105	21	1	1	44	218	584	870	4175
55	837	611	435	222	75	12	0	0	29	172	525	808	3726
50	684	480	295	122	25	2	0	0	8	81	382	653	2732
32	219	116	21	0	0	0	0	0	0	0	48	183	587

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	95	149	302	496	761	988	1272	1258	908	584	213	88	7114
55	0	0	3	28	123	310	559	545	246	42	1	0	1857
57	0	0	1	17	90	259	497	484	202	27	0	0	1577
60	0	0	0	7	52	190	407	394	143	11	0	0	1204
65	0	0	0	0	16	100	266	254	70	2	0	0	708
70	0	0	0	0	3	41	150	140	27	0	0	0	361

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	14	86	254	500	731	1009	993	650	334	56	2	0	14	100	354	854	1585	2594	3587	4237	4571	4627	4629
45	0	1	26	142	352	581	854	838	502	202	13	0	0	1	27	169	521	1102	1956	2794	3296	3498	3511	3511
50	0	0	5	70	216	433	699	683	360	104	1	0	0	0	5	75	291	724	1423	2106	2466	2570	2571	2571
55	0	0	0	26	122	295	544	528	231	38	0	0	0	0	0	26	148	443	987	1515	1746	1784	1784	1784
60	0	0	0	9	56	176	393	377	123	12	0	0	0	0	0	9	65	241	634	1011	1134	1146	1146	1146
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	10	61	167	310	450	624	618	418	225	26	0	0	10	71	238	548	998	1622	2240	2658	2883	2909	2909

(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