

Climatology of the United States

No. 20

1971-2000

Station: IDAHO FALLS 46 W, ID

COOP ID: 104460

Climate Division: ID 9

NWS Call Sign:

Elevation: 4,938 Feet Lat: 43° 32N

Lon: 112° 57W

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	27.9	4.5	16.2	51	1974	16	24.7	1981	-40	1962	21	6.1	1979	1513	0	.0	.0	.1	20.9	30.7	11.3
Feb	34.0	10.2	22.1	60	1992	28	33.3	1992	-36	1985	1	7.1	1985	1201	0	.0	.0	1.2	11.4	27.8	6.5
Mar	44.8	20.7	32.8	73	1986	28	41.2	1992	-28	1960	1	18.2	1985	999	0	.0	.0	9.7	2.8	29.0	1.2
Apr	56.9	27.9	42.4	86	1992	30	49.4	1987	6	1997	12	35.8	1975	677	0	.0	.0	22.4	.0	21.3	.0
May	66.3	36.1	51.2	91	1954	19	58.2	1992	13	1972	1	47.2	1977	429	1	.0	@	29.2	.0	9.3	.0
Jun	76.8	43.2	60.0	100+	1988	25	66.8	1988	23	1979	8	54.7	1993	193	43	.1	2.9	29.9	.0	1.7	.0
Jul	86.6	48.5	67.6	101+	1998	17	71.6	1988	28	1986	6	58.5	1993	57	137	.1	12.3	31.0	.0	.2	.0
Aug	85.7	46.7	66.2	101+	2000	1	70.0	1971	24	1992	26	61.2	1993	64	101	.2	10.8	31.0	.0	.5	.0
Sep	74.6	36.8	55.7	96	1955	6	61.7	1990	12	1970	25	50.6	1985	294	14	.0	1.4	29.6	.0	7.9	.0
Oct	60.9	25.9	43.4	87	1992	2	50.4	1988	1	1991	30	39.3	1984	670	0	.0	.0	25.9	.2	23.0	.0
Nov	41.4	15.9	28.7	67+	1980	6	35.0	1999	-24+	1993	26	19.8	1985	1091	0	.0	.0	6.6	6.1	28.2	2.2
Dec	29.4	4.8	17.1	57	1995	1	26.0	1980	-47	1983	23	7.6	1990	1485	0	.0	.0	.2	18.2	30.6	10.6
Ann	57.1	26.8	42.0	101+	Aug 2000	1	71.6	Jul 1988	-47	Dec 1983	23	6.1	Jan 1979	8673	296	.4	27.4	216.8	59.6	210.2	31.8

+ 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: 1954-2001

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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	.64	.66	.79	1969	19	1.20	1996	.01	1992	6.6	2.2	.1	.0	.08	.13	.21	.30	.40	.50	.62	.78	.98	1.32	1.65	
Feb	.62	.54	.79	1986	18	2.36	1986	.00+	1991	5.0	2.4	.1	.0	.00	.07	.18	.28	.38	.49	.62	.77	.98	1.32	1.65	
Mar	.69	.72	.89	1991	4	2.03	1995	.00	1994	6.3	2.4	.1	.0	.06	.14	.25	.35	.46	.57	.70	.86	1.07	1.41	1.73	
Apr	.79	.56	1.51	1981	20	1.99	1975	.00	1977	6.2	2.5	.3	@	.05	.12	.25	.36	.49	.62	.78	.98	1.24	1.68	2.10	
May	1.24	1.16	.95	1987	16	2.34	1995	.31	1992	8.6	4.2	.3	.0	.39	.51	.68	.83	.98	1.12	1.29	1.48	1.73	2.11	2.47	
Jun	1.08	.88	1.64	1969	10	4.64	1995	.01	1994	6.2	3.1	.4	@	.08	.15	.29	.44	.61	.80	1.03	1.31	1.72	2.39	3.06	
Jul	.66	.47	1.25	1979	23	2.29	1985	.00	1999	4.2	1.7	.4	@	.01	.05	.13	.22	.33	.45	.60	.80	1.07	1.53	1.99	
Aug	.44	.38	.80	1960	22	1.13	1997	.02	1985	3.8	1.3	.2	.0	.03	.05	.11	.17	.24	.31	.41	.53	.70	.99	1.27	
Sep	.73	.66	1.55	1961	18	2.08	1971	.00+	1987	4.1	2.2	.3	@	.00	.02	.10	.20	.31	.46	.64	.87	1.20	1.78	2.36	
Oct	.57	.51	.74	1956	27	1.67	1983	.00	1977	4.2	2.1	.2	.0	.03	.08	.16	.24	.33	.43	.55	.70	.90	1.23	1.56	
Nov	.69	.63	.71	1970	29	1.74	1988	.00	1976	5.9	2.5	.1	.0	.07	.15	.26	.36	.46	.57	.70	.85	1.05	1.37	1.67	
Dec	.67	.64	1.07	1964	22	1.91	1982	.00	1991	6.0	2.5	.1	.0	.02	.06	.15	.25	.35	.48	.63	.82	1.08	1.52	1.97	
Ann	8.82	8.54	1.64	Jun 1969	10	4.64	Jun 1995	.00+	Jul 1999	67.1	29.1	2.6	.0	5.63	6.21	6.98	7.58	8.11	8.63	9.17	9.77	10.51	11.60	12.55	

+ 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: 1954-2001

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Lon: 112° 57W

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	5.8	5.6	5	4	5.0	1972	23	11.4	1996	25	1993	22	20	1993	4.9	2.4	.5	.1	.0	23.6	17.6	12.6	4.2
Feb	4.8	2.9	5	4	7.2	1971	19	16.1	1998	30	1993	28	25	1993	3.4	1.9	.5	.2	.0	16.0	11.9	8.9	2.9
Mar	2.4	1.8	3	#	8.6	1973	22	10.2	1973	30	1993	5	20	1985	2.2	1.0	.2	.1	.0	5.8	3.7	3.5	2.7
Apr	.9	.2	#	#	4.5	1976	27	6.0	1976	12	1985	1	1	1985	1.0	.4	@	.0	.0	.5	.1	.1	@
May	.5	.0	#	0	4.0	1975	20	7.0	1979	4	1979	29	#+	1999	.3	.2	.1	.0	.0	.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	.0	.0	0	0	.2	1971	30	.2	1971	0	0	0	0	0	@	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.6	.0	#	0	4.5	1971	1	7.2	1971	2+	1996	25	#+	1997	.6	.2	@	.0	.0	.5	.0	.0	.0
Nov	4.1	4.4	1	#	6.5	1981	24	10.8	1988	9	1985	30	4	1985	3.2	1.7	.5	.1	.0	5.7	2.9	.7	.0
Dec	6.0	5.4	4	3	8.0	1992	30	22.3	1971	18	1992	31	12	1985	4.8	2.5	.7	.1	.0	17.9	14.0	7.0	1.9
Ann	25.1	20.3	N/A	N/A	8.6	Mar 1973	22	22.3	Dec 1971	30+	Mar 1993	5	25	Feb 1993	20.4	10.3	2.5	.6	.0	70.1	50.2	32.8	11.7

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

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-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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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	7/17	7/11	7/07	7/03	6/30	6/27	6/23	6/19	6/13
32	7/06	6/28	6/23	6/19	6/15	6/11	6/06	6/01	5/25
28	6/21	6/12	6/06	6/01	5/28	5/23	5/18	5/12	5/04
24	5/30	5/23	5/19	5/15	5/11	5/07	5/03	4/29	4/22
20	5/12	5/07	5/04	5/01	4/28	4/25	4/22	4/19	4/14
16	5/04	4/26	4/21	4/16	4/12	4/07	4/03	3/28	3/21
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	8/11	8/17	8/20	8/24	8/27	8/30	9/02	9/06	9/12
32	8/23	8/29	9/01	9/04	9/07	9/10	9/14	9/17	9/23
28	8/31	9/06	9/09	9/12	9/15	9/18	9/22	9/25	10/01
24	9/11	9/17	9/20	9/24	9/27	9/30	10/03	10/07	10/12
20	9/21	9/26	9/30	10/03	10/06	10/09	10/12	10/16	10/21
16	9/29	10/05	10/09	10/13	10/16	10/19	10/23	10/27	11/01
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	81	73	67	62	57	53	47	41	33
32	108	100	94	89	84	79	74	68	60
28	138	129	122	116	110	104	98	91	82
24	163	155	148	143	138	133	128	122	113
20	184	176	170	165	160	156	151	145	137
16	216	206	198	192	186	180	174	167	157

* 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

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Degree Days to Selected Base Temperatures (°F)

Base	Heating Degree Days (1)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
Below													
65	1513	1201	999	677	429	193	57	64	294	670	1091	1485	8673
60	1358	1061	844	527	282	102	17	18	176	515	941	1330	7171
57	1265	977	751	439	204	62	7	6	119	423	851	1237	6341
55	1203	921	690	383	158	42	3	3	88	363	791	1175	5820
50	1048	783	547	250	70	12	0	0	34	225	641	1020	4630
32	517	341	148	14	0	0	0	0	0	6	187	487	1700

Cooling Degree Days (1)

Base	Cooling Degree Days (1)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
Above													
32	27	63	172	326	596	841	1103	1060	710	359	86	25	5368
55	0	0	1	6	41	193	393	350	108	4	0	0	1096
57	0	0	0	1	25	153	334	291	79	2	0	0	885
60	0	0	0	0	10	103	252	210	46	0	0	0	621
65	0	0	0	0	1	43	137	101	14	0	0	0	296
70	0	0	0	0	0	14	59	33	3	0	0	0	109

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	0	21	138	362	614	870	827	490	180	10	0	0	0	21	159	521	1135	2005	2832	3322	3502	3512	3512
45	0	0	0	64	230	464	715	672	348	89	1	0	0	0	0	64	294	758	1473	2145	2493	2582	2583	2583
50	0	0	0	23	121	319	560	517	220	31	0	0	0	0	0	23	144	463	1023	1540	1760	1791	1791	1791
55	0	0	0	5	51	197	408	367	116	7	0	0	0	0	0	5	56	253	661	1028	1144	1151	1151	1151
60	0	0	0	0	13	97	257	220	40	0	0	0	0	0	0	0	13	110	367	587	627	627	627	627
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	3	33	131	269	408	557	539	374	194	20	0	0	3	36	167	436	844	1401	1940	2314	2508	2528	2528

(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:

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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 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/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