

Climatography of the United States

No. 20

1971-2000

Station: SOLDIER SUMMIT, UT

COOP ID: 427959

Climate Division: UT 5

NWS Call Sign:

Elevation: 7,470 Feet Lat: 39° 56N

Lon: 111° 05W

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	28.2	2.2	15.2	54	1971	18	22.7	1999	-29+	1971	6	6.7	1979	1545	0	.0	.0	.3	17.2	30.7	8.1
Feb	33.4	3.9	18.7	57	1977	20	27.2	1995	-30+	1956	1	10.2	1985	1298	0	.0	.0	2.4	8.6	28.2	5.4
Mar	39.6	10.5	25.1	62	1972	18	31.1	1972	-15	1955	21	19.7	1978	1237	0	.0	.0	6.7	3.1	29.1	1.2
Apr	49.7	18.3	34.0	75	1992	30	41.0	1992	-18	1958	1	27.5	1975	930	0	.0	.0	21.3	.4	27.1	.1
May	60.3	27.0	43.7	80	2000	29	48.2	2000	11+	1972	1	38.8	1995	662	0	.0	@	28.9	.1	24.7	.0
Jun	71.4	33.2	52.3	92	1954	23	57.3	1977	15+	1954	7	47.7	1998	382	1	.0	2.2	29.9	.0	7.2	.0
Jul	78.7	40.3	59.5	98	1951	17	62.6	1998	27+	1948	29	55.1	1993	179	7	.0	.8	31.0	.0	.8	.0
Aug	77.0	38.0	57.5	91+	1949	2	63.5	2000	21	1974	22	53.4	1975	238	5	.0	1.3	31.0	.0	1.4	.0
Sep	68.4	31.0	49.7	89+	1948	1	54.0	1990	13	1958	25	45.3	1986	458	0	.0	.2	29.7	.0	12.3	.0
Oct	56.7	21.6	39.2	78	1970	14	44.1	1988	-2	1972	31	34.3	1984	802	0	.0	.0	24.4	.5	22.4	@
Nov	39.3	11.3	25.3	68	1949	4	33.3	1999	-22	1955	16	17.1	2000	1191	0	.0	.0	4.5	5.7	29.8	2.1
Dec	29.7	2.3	16.0	56	1949	2	23.3	1980	-31	1990	21	8.8	1992	1519	0	.0	.0	.5	15.3	31.0	7.2
Ann	52.7	20.0	36.4	98	Jul 1951	17	63.5	Aug 2000	-31	Dec 1990	21	6.7	Jan 1979	10441	13	.0	4.5	210.6	50.9	244.7	24.1

+ 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: 1948-2001

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

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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: SOLDIER SUMMIT, UT

COOP ID: 427959

Climate Division: UT 5

NWS Call Sign:

Elevation: 7,470 Feet Lat: 39°56N

Lon: 111°05W

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	.00	.00	1.07	1956	16	.00	0	.00	0	10.5	4.6	.6	@	**	**	**	**	**	**	**	**	**	**	**
Feb	.00	.00	2.07	1949	7	.00	0	.00	0	9.7	4.6	.5	@	**	**	**	**	**	**	**	**	**	**	**
Mar	.00	.00	2.67	1988	29	.00	0	.00	0	11.5	5.9	.8	.3	**	**	**	**	**	**	**	**	**	**	**
Apr	.00	.00	.86	1974	20	.00	0	.00	0	10.0	5.4	.5	@	**	**	**	**	**	**	**	**	**	**	**
May	.00	.00	1.14	1975	20	.00	0	.00	0	9.1	4.4	.5	@	**	**	**	**	**	**	**	**	**	**	**
Jun	.00	.00	.58	1949	4	.00	0	.00+	0	4.3	1.8	.2	@	**	**	**	**	**	**	**	**	**	**	**
Jul	.00	.00	2.52	1974	21	.00	0	.00	0	5.6	2.7	.3	.1	**	**	**	**	**	**	**	**	**	**	**
Aug	.00	.00	1.04	1953	16	.00	0	.00	0	4.2	2.4	.2	@	**	**	**	**	**	**	**	**	**	**	**
Sep	.00	.00	1.60	1952	12	.00	0	.00	0	4.8	2.4	.5	@	**	**	**	**	**	**	**	**	**	**	**
Oct	.00	.00	1.00	1957	3	.00	0	.00	0	6.8	3.9	.5	.1	**	**	**	**	**	**	**	**	**	**	**
Nov	.00	.00	.90	2001	22	.00	0	.00	0	8.4	5.0	.7	.1	**	**	**	**	**	**	**	**	**	**	**
Dec	.00	.00	.96	1955	2	.00	0	.00	0	9.3	4.3	.3	@	**	**	**	**	**	**	**	**	**	**	**
Ann	.00	.00	2.67	Mar 1988	29	#	0	9.99+	0	94.2	47.4	5.6	.6	**	**	**	**	**	**	**	**	**	**	**

+ 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: 1948-2001

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Climate Division: UT 5

NWS Call Sign:

Elevation: 7,470 Feet

Lat: 39° 56N

Lon: 111° 05W

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	14.6	-99.9	15	8	12.1	1974	8	43.9	1974	75	1971	16	52	1971	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
Feb	4.0	-99.9	7	0	12.0	2000	24	12.0	2000	44	1972	6	36	1972	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
Mar	4.2	-99.9	2	1	12.5	1977	3	12.5	1977	20	1972	1	4+	1988	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
Apr	2.5	-99.9	#	#	10.0	1974	20	10.0+	1974	5	1972	19	2	1991	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
May	4.8	-99.9	#	0	11.0	1975	20	19.0	1999	3	1988	29	3	1988	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
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	.3	.0	#	0	2.0	1973	2	4.0	1973	2	1973	25	#	1973	.1	.1	.0	.0	.0	.2	.0	.0	.0
Oct	.2	.0	#	0	2.0	1975	13	2.0	1998	7	1972	30	1	1972	.2	.2	.0	.0	.0	.0	.0	.0	.0
Nov	2.4	-99.9	1	#	8.0	1977	19	12.0	1977	12	1975	30	4	1973	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
Dec	7.2	-99.9	12	#	9.0	1977	29	21.5	1977	45	1972	31	30	1972	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9	-9.9
Ann	40.2	-9.9	N/A	N/A	12.5	Mar 1977	3	43.9	Jan 1974	75	Jan 1971	16	52	Jan 1971	-9.9	-9.9	-9.9	-9.9	-9.9	-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

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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	8/02	7/25	7/18	7/13	7/08	7/03	6/28	6/22	6/13
32	7/12	7/05	6/30	6/25	6/21	6/17	6/12	6/07	5/31
28	6/24	6/18	6/13	6/09	6/06	6/02	5/29	5/25	5/19
24	6/17	6/10	6/05	5/31	5/27	5/23	5/19	5/14	5/07
20	6/04	5/29	5/25	5/21	5/18	5/14	5/11	5/06	4/30
16	5/27	5/19	5/13	5/09	5/04	4/29	4/25	4/19	4/11
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	8/03	8/09	8/13	8/16	8/19	8/22	8/26	8/29	9/04
32	8/13	8/20	8/26	8/31	9/04	9/08	9/13	9/19	9/27
28	8/29	9/04	9/08	9/11	9/14	9/18	9/21	9/25	10/01
24	9/06	9/14	9/20	9/25	9/29	10/04	10/09	10/14	10/22
20	9/20	9/27	10/03	10/07	10/11	10/15	10/20	10/25	11/01
16	10/08	10/14	10/19	10/23	10/27	10/30	11/04	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	72	62	54	47	41	35	29	21	10
32	110	98	89	81	74	67	60	51	39
28	130	120	112	106	100	94	88	80	70
24	158	147	138	131	124	118	110	102	90
20	167	160	154	150	146	141	137	131	124
16	198	190	184	179	175	171	166	160	152

* 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)												
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	1545	1298	1237	930	662	382	179	238	458	802	1191	1519	10441
60	1390	1158	1082	780	507	241	67	112	311	647	1041	1364	8700
57	1297	1074	989	690	415	168	27	61	228	554	951	1271	7725
55	1235	1018	927	630	356	127	13	36	178	492	891	1209	7112
50	1080	878	772	482	218	52	1	6	78	339	741	1054	5701
32	531	389	255	80	4	0	0	0	0	19	249	504	2031

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	10	15	41	140	365	609	851	790	532	241	49	8	3651
55	0	0	0	0	4	46	151	113	20	0	0	0	334
57	0	0	0	0	1	27	103	76	10	0	0	0	217
60	0	0	0	0	0	10	50	34	3	0	0	0	97
65	0	0	0	0	0	1	7	5	0	0	0	0	13
70	0	0	0	0	0	0	0	0	0	0	0	0	0

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	89	206	520	649	652	421	152	0	0	0	0	21	110	316	836	1485	2137	2558	2710	2710	2710
45	0	0	2	36	99	371	495	497	279	68	0	0	0	0	2	38	137	508	1003	1500	1779	1847	1847	1847
50	0	0	0	9	38	238	341	345	155	17	0	0	0	0	0	9	47	285	626	971	1126	1143	1143	1143
55	0	0	0	0	4	123	192	196	69	4	0	0	0	0	0	0	4	127	319	515	584	588	588	588
60	0	0	0	0	0	52	69	82	19	0	0	0	0	0	0	0	0	52	121	203	222	222	222	222
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	3	20	120	250	404	446	464	341	153	13	0	0	3	23	143	393	797	1243	1707	2048	2201	2214	2214

(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