

# 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: SILVER LAKE BRIGHTON, UT

1971-2000

COOP ID: 427846

Climate Division: UT 5

NWS Call Sign:

Elevation: 8,740 Feet Lat: 40° 36N

Lon: 111° 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	9.6	19.9	55+	1981	23	27.0	1981	-34	1963	12	12.4	1979	1398	0	.0	.0	.3	18.4	30.9	6.3
Feb	33.1	10.8	22.0	57	1982	28	28.3	1995	-30	1951	1	15.8	1985	1204	0	.0	.0	.7	13.3	28.2	5.2
Mar	37.1	15.5	26.3	59	1960	22	32.1	1986	-21	1956	12	22.4	1977	1199	0	.0	.0	2.3	8.9	30.4	2.3
Apr	43.5	21.2	32.4	66	1992	30	38.8	1992	-10	1983	5	25.3	1975	979	0	.0	.0	8.4	3.4	27.3	.7
May	52.2	29.6	40.9	74+	1956	31	46.7	1992	0+	1965	6	36.2	1983	747	0	.0	.0	19.9	.5	20.7	.0
Jun	63.6	37.7	50.7	83+	1954	23	56.1	1988	18+	1950	8	45.3	1998	434	2	.0	.3	27.5	.0	6.8	.0
Jul	71.5	44.8	58.2	87	1985	29	61.4	1998	23	1962	12	52.4	1993	221	9	.0	.0	30.9	.0	.8	.0
Aug	70.2	43.7	57.0	85+	1964	5	60.7	1994	24+	1960	23	54.0	1978	252	2	.0	.0	30.9	.0	1.0	.0
Sep	61.1	36.0	48.6	80+	1950	2	53.3	1990	6	1965	18	43.3	1986	494	0	.0	.0	26.8	.1	8.6	.0
Oct	49.7	26.6	38.2	72	1950	11	44.6	1988	-2+	1970	27	30.6	1984	833	0	.0	.0	17.9	2.1	23.2	.2
Nov	36.3	15.6	26.0	62	1999	15	34.0	1999	-20	1955	15	19.6	2000	1171	0	.0	.0	3.5	11.2	28.8	2.4
Dec	31.0	9.7	20.4	64	1965	7	27.5	1980	-29+	1990	24	12.4	1990	1386	0	.0	.0	.6	16.2	30.9	5.9
Ann	48.3	25.1	36.7	87	Jul 1985	29	61.4	Jul 1998	-34	Jan 1963	12	12.4+	Dec 1990	10318	13	.0	.3	169.7	74.1	237.6	23.0

+ 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: 1948-2001

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

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**Station: SILVER LAKE BRIGHTON, UT**

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**Climate Division: UT 5**

**NWS Call Sign:**

**Elevation: 8,740 Feet Lat: 40°36N**

**Lon: 111°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	5.06	4.47	3.13	1980	10	13.11	1980	.97	1992	13.2	10.2	3.3	.9	1.54	2.02	2.74	3.36	3.96	4.58	5.26	6.07	7.11	8.73	10.24
Feb	4.88	4.27	3.70	1969	25	11.64	1986	1.64	1991	11.3	8.9	3.6	1.2	2.05	2.50	3.12	3.63	4.11	4.59	5.11	5.71	6.47	7.63	8.68
Mar	5.28	5.03	2.72	1963	28	11.47	1982	2.03	1997	13.9	10.8	3.7	1.0	2.20	2.68	3.36	3.91	4.43	4.96	5.53	6.19	7.02	8.29	9.44
Apr	4.15	4.23	1.90	2001	8	7.45	1972	.62	1987	10.7	8.9	2.7	.6	1.08	1.47	2.08	2.61	3.13	3.68	4.29	5.01	5.95	7.44	8.83
May	3.45	3.21	3.00	1957	19	7.70	1981	.05	1972	9.9	7.7	2.4	.4	.53	.83	1.33	1.80	2.30	2.83	3.45	4.21	5.22	6.87	8.45
Jun	1.52	1.23	1.96	1964	21	6.09	1998	.00+	1980	5.2	3.5	.9	.3	.00	.11	.35	.59	.84	1.13	1.47	1.88	2.46	3.43	4.37
Jul	1.65	1.52	2.05	1993	24	3.95	1983	.02+	1988	6.5	4.3	1.0	.1	.10	.20	.40	.62	.87	1.17	1.53	1.99	2.63	3.72	4.81
Aug	1.85	1.73	1.81	1991	5	4.47	1983	.00	1985	7.4	4.5	1.1	.2	.21	.43	.74	1.01	1.28	1.56	1.89	2.28	2.80	3.63	4.42
Sep	2.55	2.38	1.99	1978	18	8.39	1982	.00	1979	7.7	5.5	1.8	.4	.25	.55	.97	1.34	1.72	2.13	2.59	3.15	3.89	5.09	6.24
Oct	3.59	3.56	3.55	1968	14	8.27	1972	.24	1978	8.0	5.9	2.6	.8	.73	1.05	1.58	2.06	2.55	3.07	3.66	4.36	5.30	6.80	8.22
Nov	4.81	4.22	2.90	2001	23	9.30	1983	.48	1976	12.5	9.4	3.4	.9	1.56	2.01	2.69	3.26	3.81	4.38	5.01	5.74	6.68	8.15	9.50
Dec	4.63	4.32	2.49	1981	31	13.63	1983	.10	1976	12.7	9.2	2.9	.9	.52	.87	1.51	2.16	2.85	3.62	4.53	5.66	7.19	9.72	12.19
Ann	43.42	43.88	3.70	Feb 1969	25	13.63	Dec 1983	.00+	Aug 1985	119.0	88.8	29.4	7.7	27.63	30.56	34.37	37.32	39.96	42.55	45.25	48.25	51.93	57.34	62.07

+ 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

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

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**COOP ID: 427846**

**Climate Division: UT 5**

**NWS Call Sign:**

**Elevation: 8,740 Feet**

**Lat: 40°36N**

**Lon: 111°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	62.1	55.5	53	55	25.0	1973	19	125.0	1998	94	1997	27	76	1997	12.6	12.1	8.2	5.3	1.8	-9.9	-9.9	-9.9	-9.9
Feb	62.8	60.0	68	72	26.0	1980	15	110.5	1980	118	1980	24	89+	1997	10.7	10.5	7.4	4.8	2.2	-9.9	-9.9	-9.9	-9.9
Mar	71.9	65.0	77	80	25.0	1980	12	129.0	1982	134	1982	30	115	1980	12.8	12.1	8.6	5.4	1.9	-9.9	-9.9	-9.9	-9.9
Apr	38.5	40.5	69	69	21.0	1975	16	76.5	1975	126	1982	8	109	1982	8.9	8.7	6.3	3.4	1.2	-9.9	-9.9	-9.9	-9.9
May	21.3	16.0	35	38	15.0	1981	16	61.5	1983	112	1983	12	96	1983	4.5	4.4	2.9	1.7	.4	17.5	17.0	16.2	14.8
Jun	2.2	.0	3	#	12.0	1981	14	12.0	1981	66	1983	1	26	1983	.9	.8	.4	.2	.1	2.0	1.5	1.2	.7
Jul	#	.0	0	0	#	1982	2	#	1982	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Aug	.1	.0	#	0	1.0	1978	17	1.5	1978	1	1978	17	#	1978	.1	@	.0	.0	.0	.1	.0	.0	.0
Sep	2.6	.0	#	0	16.0	1978	18	28.0	1982	21	1982	30	3	1986	.8	.8	.5	.2	.1	.9	.7	.5	.3
Oct	22.8	22.0	5	5	23.0	1984	18	68.0	1984	45	1984	18	14	1982	4.6	4.4	3.2	1.9	.6	10.1	8.7	7.4	3.9
Nov	59.0	51.7	18	19	25.0	1982	30	115.0	1985	56	1984	29	36	1984	10.9	10.5	6.8	4.2	1.8	26.0	25.9	24.8	21.3
Dec	68.5	75.8	37	35	25.0	1977	16	187.0	1983	84	1983	28	66	1983	11.3	10.9	7.4	4.9	1.7	29.3	29.3	29.2	29.2
Ann	411.8	386.5	N/A	N/A	26.0	Feb 1980	15	187.0	Dec 1983	134	Mar 1982	30	115	Mar 1980	78.1	75.2	51.7	32.0	11.8	-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:

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**Elevation: 8,740 Feet**

**Lat: 40°36N**

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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	7/30	7/23	7/19	7/14	7/11	7/07	7/03	6/28	6/21
32	7/20	7/13	7/08	7/04	6/30	6/26	6/21	6/16	6/09
28	6/28	6/22	6/17	6/13	6/10	6/06	6/02	5/28	5/22
24	6/11	6/05	6/01	5/28	5/25	5/22	5/18	5/14	5/08
20	5/31	5/26	5/22	5/19	5/16	5/13	5/10	5/06	5/01
16	5/23	5/17	5/13	5/10	5/07	5/04	5/01	4/27	4/21
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	8/02	8/09	8/14	8/18	8/22	8/25	8/29	9/03	9/10
32	8/12	8/19	8/23	8/27	8/31	9/04	9/08	9/13	9/20
28	8/25	8/31	9/04	9/08	9/12	9/15	9/19	9/24	9/30
24	9/12	9/17	9/21	9/24	9/27	9/30	10/03	10/07	10/12
20	9/20	9/26	9/30	10/04	10/07	10/10	10/14	10/18	10/24
16	9/25	10/03	10/08	10/12	10/16	10/20	10/25	10/30	11/06
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	75	63	55	48	41	35	28	19	8
32	95	84	75	68	62	55	48	40	29
28	124	114	106	100	94	88	81	73	63
24	147	139	134	129	124	120	115	110	102
20	169	160	154	148	143	138	132	126	117
16	191	181	174	167	162	156	149	142	132

\* 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	1398	1204	1199	979	747	434	221	252	494	833	1171	1386	10318
60	1243	1064	1044	829	592	294	106	120	347	678	1021	1231	8569
57	1150	980	951	739	499	219	58	64	264	585	931	1138	7578
55	1088	924	889	679	438	175	35	37	214	523	871	1076	6949
50	933	784	734	530	292	87	7	6	110	374	721	921	5499
32	381	288	208	113	11	0	0	0	0	36	225	373	1635

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	6	8	31	125	287	559	811	773	496	226	44	10	3376
55	0	0	0	0	1	44	133	98	20	1	0	0	297
57	0	0	0	0	0	28	94	62	10	0	0	0	194
60	0	0	0	0	0	13	48	25	3	0	0	0	89
65	0	0	0	0	0	2	9	2	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	0	24	114	368	567	534	286	92	4	0	0	0	0	24	138	506	1073	1607	1893	1985	1989	1989
45	0	0	0	2	39	239	413	380	163	34	0	0	0	0	0	2	41	280	693	1073	1236	1270	1270	1270
50	0	0	0	0	5	132	264	230	71	4	0	0	0	0	0	0	5	137	401	631	702	706	706	706
55	0	0	0	0	0	58	129	97	17	0	0	0	0	0	0	0	0	58	187	284	301	301	301	301
60	0	0	0	0	0	21	33	19	0	0	0	0	0	0	0	0	0	21	54	73	73	73	73	73
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	0	19	89	242	353	329	188	74	2	0	0	0	0	19	108	350	703	1032	1220	1294	1296	1296

(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](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> |
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## 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)