

# Climatography of the United States

No. 20

1971-2000

Station: UTAH LAKE LEHI, UT

COOP ID: 428973

Climate Division: UT 3

NWS Call Sign:

Elevation: 4,497 Feet Lat: 40° 22N

Lon: 111° 54W

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	36.6	15.7	26.2	64	1956	6	33.7	1994	-26	1949	29	17.4	1973	1204	0	.0	.0	1.2	9.0	29.8	2.7
Feb	42.4	19.8	31.1	69	1986	24	38.9	2000	-28+	1933	10	20.3	1985	950	0	.0	.0	5.3	3.1	26.9	.9
Mar	51.1	28.1	39.6	78	1978	28	45.1	1986	-4	1964	7	35.0	1977	787	0	.0	.0	16.6	.3	23.9	.0
Apr	61.3	34.1	47.7	87	1977	25	53.8	1992	12	1955	5	41.6	1975	518	0	.0	.0	26.4	.0	12.4	.0
May	70.7	41.3	56.0	92	1964	16	60.8	1997	21	1946	1	51.6	1975	293	14	.0	@	30.5	.0	2.6	.0
Jun	82.3	49.0	65.7	102	1940	18	71.5	1994	29	1976	14	61.1	1975	85	104	.0	4.7	30.0	.0	.1	.0
Jul	89.8	55.7	72.8	106	1931	24	76.8	1988	38+	1931	7	67.1	1993	8	248	.5	17.6	31.0	.0	.0	.0
Aug	88.0	54.2	71.1	100+	1934	2	75.9	1994	33+	1943	31	67.5	1974	13	202	.1	12.2	31.0	.0	.0	.0
Sep	78.2	44.7	61.5	99	1977	8	67.6	1990	25+	1934	27	57.7	1971	148	42	.0	1.1	30.0	.0	1.4	.0
Oct	64.8	34.1	49.5	89+	1963	2	55.8	1988	7	1971	30	44.5	1984	482	0	.0	.0	28.6	.1	12.2	.0
Nov	48.3	25.0	36.7	78	1964	7	43.0	1995	-9	1955	16	29.1	1994	851	0	.0	.0	13.0	.6	25.7	.1
Dec	38.7	17.6	28.2	62+	1939	5	34.9	1995	-22	1932	13	18.1	1990	1142	0	.0	.0	2.5	6.3	30.1	1.5
Ann	62.7	34.9	48.8	106	Jul 1931	24	76.8	Jul 1988	-28+	Feb 1933	10	17.4	Jan 1973	6481	610	.6	35.6	246.1	19.4	165.1	5.2

+ 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/normals/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normals/usnormals.html)

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1928-2001

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

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## No. 20 1971-2000

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

**Station: UTAH LAKE LEHI, UT**

**COOP ID: 428973**

**Climate Division: UT 3**

**NWS Call Sign:**

**Elevation: 4,497 Feet Lat: 40°22N**

**Lon: 111°54W**

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	.98	.85	.83	1987	28	2.23	1980	.00	1988	8.3	4.3	.6	@	.12	.24	.40	.55	.69	.84	1.01	1.21	1.48	1.91	2.32
Feb	1.00	.84	.97	1986	19	3.12	1986	.00	1985	7.6	3.8	.4	.0	.03	.11	.25	.39	.55	.73	.95	1.23	1.61	2.25	2.89
Mar	1.12	.97	.90	1986	9	3.72	1978	.00	1974	8.3	4.1	.3	.0	.17	.32	.51	.67	.82	.98	1.16	1.38	1.65	2.09	2.51
Apr	1.30	1.17	1.25	1957	23	3.40	1999	.09	1987	8.3	4.4	.5	.0	.22	.33	.52	.70	.88	1.08	1.31	1.59	1.96	2.57	3.15
May	1.40	1.08	1.49	1949	20	3.77	1981	.03	1972	8.1	4.5	.5	.1	.15	.25	.44	.64	.85	1.08	1.36	1.70	2.18	2.96	3.72
Jun	.66	.39	1.26	1998	13	3.02	1998	.00+	1994	4.3	2.1	.2	@	.00	.01	.07	.15	.26	.39	.55	.77	1.09	1.66	2.24
Jul	.67	.62	1.24	1930	17	1.80	1999	.00+	1992	4.5	2.2	.3	.0	.00	.07	.19	.30	.41	.53	.67	.84	1.07	1.44	1.80
Aug	.98	.94	1.50	1951	3	2.96	1983	.00+	1996	5.8	2.9	.4	.0	.00	.15	.33	.49	.65	.81	1.00	1.22	1.52	2.00	2.46
Sep	1.15	1.09	1.30	1978	18	5.63	1982	.01	1979	5.6	3.0	.6	.1	.07	.14	.28	.44	.62	.82	1.07	1.39	1.84	2.59	3.34
Oct	1.33	1.44	1.50	1946	28	3.45	1981	.00+	1999	6.1	4.0	.6	.1	.00	.19	.45	.66	.87	1.10	1.36	1.66	2.07	2.73	3.36
Nov	1.13	.90	1.53	1992	1	3.79	1983	.17	1993	7.1	3.9	.5	.1	.19	.28	.45	.60	.76	.94	1.13	1.38	1.70	2.22	2.72
Dec	.69	.53	.80	1944	23	1.99	1983	.04+	2000	7.1	2.6	.2	.0	.06	.11	.20	.29	.40	.52	.66	.84	1.09	1.50	1.91
Ann	12.41	12.19	1.53	Nov 1992	1	5.63	Sep 1982	.00+	Oct 1999	81.1	41.8	5.1	.4	7.31	8.22	9.44	10.38	11.24	12.08	12.97	13.96	15.18	16.99	18.59

+ 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: 1928-2001

(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: UTAH LAKE LEHI, UT**

**COOP ID: 428973**

**Climate Division: UT 3**

**NWS Call Sign:**

**Elevation: 4,497 Feet**

**Lat: 40° 22N**

**Lon: 111° 54W**

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	8.7	6.5	2	2	10.0	1973	19	20.5	1973	14	1980	29	8	1973	4.3	2.8	.7	.2	.1	12.6	6.0	3.2	.2
Feb	2.7	2.0	1	1	7.0	1989	3	10.9	1979	16	1989	13	9	1989	2.1	1.3	.3	.1	.0	7.1	2.9	.4	.0
Mar	.8	.0	#	0	3.0	1976	25	4.0	1976	7	1977	2	1	1977	.8	.4	.1	.0	.0	.6	.1	.0	.0
Apr	1.1	.0	#	0	6.0	1999	1	7.0	1999	4	1974	13	#+	1999	.6	.4	.1	.1	.0	.3	@	.0	.0
May	#	.0	0	0	#	1975	5	#	1975	0	0	0	0	0	.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	.6	.0	#	0	4.0	1972	29	5.0	1991	3+	1991	28	#+	1991	.3	.3	.1	.0	.0	.4	.1	.0	.0
Nov	3.8	3.0	#	#	6.0	1976	26	14.0	1983	6	1976	26	1	1993	2.1	1.6	.4	.1	.0	3.6	1.4	.1	.0
Dec	6.2	5.2	1	#	7.0	1981	27	20.0	1981	8	1981	27	3	1988	3.2	2.3	.6	.1	.0	11.3	3.0	.9	.0
Ann	23.9	16.7	N/A	N/A	10.0	Jan 1973	19	20.5	Jan 1973	16	Feb 1989	13	9	Feb 1989	13.4	9.1	2.3	.6	.1	35.9	13.5	4.6	.2

+ 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	6/18	6/11	6/06	6/02	5/29	5/25	5/21	5/16	5/09
32	6/03	5/27	5/22	5/18	5/14	5/10	5/06	5/01	4/24
28	5/11	5/05	4/30	4/27	4/23	4/20	4/16	4/11	4/05
24	4/22	4/15	4/10	4/06	4/03	3/30	3/26	3/21	3/14
20	4/13	4/05	3/29	3/24	3/19	3/14	3/08	3/02	2/22
16	3/27	3/17	3/10	3/04	2/26	2/20	2/14	2/07	1/28
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	9/07	9/12	9/16	9/19	9/22	9/24	9/28	10/01	10/06
32	9/16	9/21	9/24	9/27	9/30	10/02	10/05	10/08	10/13
28	9/28	10/05	10/09	10/13	10/17	10/21	10/25	10/29	11/05
24	10/18	10/22	10/26	10/29	11/01	11/03	11/06	11/10	11/14
20	10/27	11/02	11/06	11/09	11/12	11/15	11/18	11/22	11/27
16	11/05	11/10	11/14	11/16	11/19	11/22	11/25	11/28	12/03
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	137	130	124	119	115	111	106	101	93
32	161	153	147	143	138	134	129	123	116
28	203	194	187	182	176	171	165	159	150
24	233	226	220	216	211	207	202	197	189
20	267	257	249	243	237	231	225	218	208
16	298	287	279	272	266	259	252	244	233

\* 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	1204	950	787	518	293	85	8	13	148	482	851	1142	6481
60	1049	810	632	374	171	32	1	1	65	331	701	987	5154
57	956	726	539	291	114	15	0	0	34	248	611	894	4428
55	894	670	477	241	83	8	0	0	20	198	551	832	3974
50	743	538	328	134	30	1	0	0	4	96	406	677	2957
32	273	152	19	0	0	0	0	0	0	0	54	201	699

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	92	126	256	472	744	1009	1264	1213	884	542	193	82	6877
55	0	0	0	22	114	327	551	500	213	26	0	0	1753
57	0	0	0	13	83	273	489	438	167	14	0	0	1477
60	0	0	0	5	47	200	396	346	108	5	0	0	1107
65	0	0	0	0	14	104	248	202	42	0	0	0	610
70	0	0	0	0	2	41	123	89	10	0	0	0	265

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	13	74	247	504	775	1030	973	652	312	49	3	0	13	87	334	838	1613	2643	3616	4268	4580	4629	4632
45	0	1	27	133	353	625	875	818	502	181	13	0	0	1	28	161	514	1139	2014	2832	3334	3515	3528	3528
50	0	0	3	56	218	476	720	663	358	83	0	0	0	0	3	59	277	753	1473	2136	2494	2577	2577	2577
55	0	0	0	19	110	333	565	508	221	26	0	0	0	0	0	19	129	462	1027	1535	1756	1782	1782	1782
60	0	0	0	2	39	195	410	354	107	1	0	0	0	0	0	2	41	236	646	1000	1107	1108	1108	1108
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	13	66	182	333	500	654	623	439	244	49	5	0	13	79	261	594	1094	1748	2371	2810	3054	3103	3108

(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> |
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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)