

# Climatology of the United States

## No. 20

### 1971-2000

**Station: SALT LAKE CITY INTL AP, UT**

**COOP ID: 427598**

**Climate Division: UT 3**

**NWS Call Sign: SLC**

**Elevation: 4,225 Feet Lat: 40° 47N**

**Lon: 111° 58W**

### 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	37.0	21.3	29.2	62	1982	26	37.9	1998	-22	1949	25	19.0	1973	1108	0	.0	.0	3.2	9.4	27.1	1.2
Feb	43.4	25.5	34.5	69	1972	28	42.2	1995	-14	1989	6	24.9	1985	857	0	.0	.0	8.0	3.3	21.9	.4
Mar	52.8	33.4	43.1	78+	1956	24	49.2	1992	2	1966	4	36.9	1977	665	0	.0	.0	20.8	.3	13.1	.0
Apr	60.9	39.0	50.0	86	1992	29	57.0	1992	15	1955	5	43.5	1975	448	4	.0	.0	26.2	.0	5.0	.0
May	70.6	46.9	58.8	95	1997	31	65.3	1992	25	1965	6	53.5	1975	215	34	.0	.3	30.4	.0	.2	.0
Jun	82.2	55.8	69.0	104+	1961	21	75.3	1988	35+	1954	2	62.6	1998	50	183	.7	9.3	30.0	.0	.0	.0
Jul	90.6	63.4	77.0	107	1960	26	80.8	2000	40	1968	1	69.3	1993	3	387	3.5	22.1	31.0	.0	.0	.0
Aug	88.7	62.4	75.6	106	1994	4	80.2	1994	37+	1964	29	70.9	1976	3	347	1.3	19.5	31.0	.0	.0	.0
Sep	77.6	52.4	65.0	100	1979	8	71.5	1990	27	1965	18	58.5	1971	89	105	@	4.1	29.9	.0	@	.0
Oct	64.0	41.0	52.5	89	1963	3	59.6	1988	16	1971	30	46.4	1971	379	6	.0	.0	28.9	@	3.1	.0
Nov	48.7	30.4	39.6	75+	1967	12	45.8	1995	-14	1955	16	31.4	2000	747	0	.0	.0	15.4	1.1	18.0	.0
Dec	38.0	22.4	30.2	69	1995	1	37.3	1977	-15	1972	15	20.8	1990	1067	0	.0	.0	3.5	7.6	26.9	.7
Ann	62.9	41.2	52.0	107	1960	26	80.8	2000	-22	1949	25	19.0	1973	5631	1066	5.5	55.3	258.3	21.7	115.3	2.3

+ 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

# Climatology of the United States

## No. 20 1971-2000

Station: SALT LAKE CITY INTL AP, UT

COOP ID: 427598

Climate Division: UT 3

NWS Call Sign: SLC

Elevation: 4,225 Feet Lat: 40° 47'N

Lon: 111° 58'W

### 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	Median	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	1.37	1.15	1.36	1953	14	3.23	1993	.50	1984	10.9	4.3	.4	.0	.41	.54	.73	.90	1.06	1.23	1.42	1.64	1.93	2.37	2.79
Feb	1.33	1.26	1.23	1998	24	4.89	1998	.13	1988	9.3	4.4	.3	@	.32	.44	.64	.81	.98	1.17	1.37	1.62	1.94	2.44	2.92
Mar	1.91	1.79	.93	1998	27	3.97	1983	.80+	2000	10.5	5.9	.9	.0	.67	.85	1.11	1.33	1.54	1.76	1.99	2.27	2.62	3.16	3.66
Apr	2.02	1.96	1.62	1976	25	4.57	1974	.45	1981	9.9	5.5	.9	.2	.46	.64	.94	1.20	1.47	1.75	2.07	2.45	2.94	3.73	4.48
May	2.09	1.85	1.27	1973	25	4.76	1977	.14	1972	9.7	5.3	1.2	.2	.51	.71	1.01	1.28	1.55	1.83	2.15	2.53	3.02	3.80	4.53
Jun	.77	.54	1.48	1998	17	3.84	1998	.00	1994	5.2	2.3	.2	.1	.01	.06	.15	.25	.38	.52	.70	.93	1.26	1.82	2.38
Jul	.72	.52	2.28	1962	13	2.57	1982	.04	1988	4.8	1.9	.4	@	.05	.10	.19	.29	.40	.53	.68	.87	1.14	1.59	2.03
Aug	.76	.59	1.62	1954	4	2.64	1983	.02	1996	5.6	2.2	.3	@	.05	.10	.20	.30	.42	.55	.72	.93	1.22	1.71	2.19
Sep	1.33	1.03	2.27	1982	26	7.04	1982	.03	1974	6.0	2.8	.9	.3	.03	.08	.21	.37	.57	.82	1.14	1.57	2.18	3.27	4.37
Oct	1.57	1.62	1.53	1993	7	3.91	1981	.00	1978	6.9	4.4	.9	.1	.06	.18	.40	.63	.88	1.16	1.50	1.92	2.51	3.49	4.45
Nov	1.40	1.22	1.27	2001	22	2.96	1994	.03	1976	9.0	4.3	.4	@	.33	.46	.66	.85	1.03	1.22	1.44	1.70	2.04	2.58	3.08
Dec	1.23	1.15	1.21	1972	28	4.37	1983	.08	1976	9.1	4.0	.4	@	.16	.25	.43	.60	.78	.98	1.21	1.50	1.89	2.53	3.15
Ann	16.50	16.95	2.28	Jul 1962	13	7.04	Sep 1982	.00+	Jun 1994	96.9	47.3	7.2	.9	10.10	11.27	12.80	14.00	15.07	16.13	17.23	18.47	19.98	22.22	24.19

+ 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

Complete documentation available from:

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

# Climatography of the United States

## No. 20 1971-2000

Station: SALT LAKE CITY INTL AP, UT

COOP ID: 427598

Climate Division: UT 3

NWS Call Sign: SLC

Elevation: 4,225 Feet

Lat: 40° 47N

Lon: 111° 58W

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	14.5	12.4	3	2	13.4	1996	25	50.3	1993	25	1993	12	12	1993	9.5	4.1	1.5	.7	.1	17.8	12.2	6.5	1.1
Feb	10.0	8.6	2	2	10.9	1989	1	32.1	1998	17	1998	26	8	1989	6.5	3.1	1.0	.4	.1	11.0	6.4	4.3	.9
Mar	9.2	6.9	#	1	10.1	1977	2	41.9	1977	14	1998	1	3	1998	4.8	2.8	1.0	.4	@	3.6	1.6	.8	.1
Apr	5.7	3.5	#	0	11.8	1974	10	25.1	1984	8	1974	11	1+	1984	2.9	1.5	.7	.3	@	1.1	.4	.2	.0
May	.7	.0	#	0	5.0	1983	11	7.5	1975	4	1978	5	#	2000	.4	.2	.1	@	.0	.1	.1	.0	.0
Jun	#	.0	#	0	#	1995	9	#+	1995	0	0	0	#	1978	.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	.2	.0	0	0	4.0	1971	30	4.0	1971	0	0	0	0	0	.1	.1	@	.0	.0	.0	.0	.0	.0
Oct	2.1	.0	#	0	13.8	1984	18	20.4	1984	9	1984	18	1	1984	1.0	.6	.2	.1	@	.5	.2	.1	.0
Nov	7.2	4.8	#	0	8.3	1994	13	33.3	1994	11	1985	19	3+	1994	4.3	2.3	1.0	.3	.0	4.9	2.8	1.3	@
Dec	11.4	11.5	1	1	12.6	1972	28	35.2	1972	14	1972	30	5	1972	7.5	3.5	1.4	.3	.1	12.6	6.3	2.5	.3
Ann	61.0	47.7	N/A	N/A	13.8	Oct 1984	18	50.3	Jan 1993	25	Jan 1993	12	12	Jan 1993	37.0	18.2	6.9	2.5	.3	51.6	30.0	15.7	2.4

+ 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:

[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

# Climatography of the United States

## No. 20 1971-2000

Station: SALT LAKE CITY INTL AP, UT

COOP ID: 427598

Climate Division: UT 3

NWS Call Sign: SLC

Elevation: 4,225 Feet

Lat: 40° 47N

Lon: 111° 58W

<b>Freeze Data</b>									
<b>Spring Freeze Dates (Month/Day)</b>									
<b>Temp (F)</b>	<b>Probability of later date in spring (thru Jul 31) than indicated(*)</b>								
	<b>.10</b>	<b>.20</b>	<b>.30</b>	<b>.40</b>	<b>.50</b>	<b>.60</b>	<b>.70</b>	<b>.80</b>	<b>.90</b>
<b>36</b>	5/24	5/18	5/14	5/11	5/08	5/05	5/01	4/27	4/22
<b>32</b>	5/08	5/02	4/27	4/23	4/19	4/16	4/12	4/07	3/31
<b>28</b>	4/21	4/13	4/08	4/03	3/29	3/25	3/20	3/14	3/06
<b>24</b>	4/07	3/30	3/25	3/20	3/15	3/11	3/06	3/01	2/21
<b>20</b>	3/22	3/15	3/10	3/05	3/01	2/25	2/21	2/16	2/09
<b>16</b>	3/14	3/04	2/26	2/20	2/14	2/09	2/03	1/27	1/17
<b>Fall Freeze Dates (Month/Day)</b>									
<b>Temp (F)</b>	<b>Probability of earlier date in fall (beginning Aug 1) than indicated(*)</b>								
	<b>.10</b>	<b>.20</b>	<b>.30</b>	<b>.40</b>	<b>.50</b>	<b>.60</b>	<b>.70</b>	<b>.80</b>	<b>.90</b>
<b>36</b>	9/24	9/29	10/03	10/06	10/09	10/12	10/15	10/18	10/23
<b>32</b>	10/11	10/16	10/20	10/23	10/25	10/28	10/31	11/03	11/08
<b>28</b>	10/19	10/24	10/27	10/30	11/02	11/04	11/07	11/10	11/15
<b>24</b>	11/01	11/06	11/09	11/12	11/14	11/17	11/19	11/23	11/27
<b>20</b>	11/07	11/14	11/18	11/22	11/26	11/29	12/03	12/08	12/14
<b>16</b>	11/15	11/21	11/26	11/29	12/03	12/06	12/10	12/14	12/20
<b>Freeze Free Period</b>									
<b>Temp (F)</b>	<b>Probability of longer than indicated freeze free period (Days)</b>								
	<b>.10</b>	<b>.20</b>	<b>.30</b>	<b>.40</b>	<b>.50</b>	<b>.60</b>	<b>.70</b>	<b>.80</b>	<b>.90</b>
<b>36</b>	177	169	163	158	153	149	144	138	130
<b>32</b>	213	204	198	193	188	183	178	172	163
<b>28</b>	243	234	227	222	217	211	206	199	190
<b>24</b>	270	261	254	248	243	238	232	225	216
<b>20</b>	299	289	281	275	269	263	256	249	238
<b>16</b>	326	314	305	298	291	284	276	268	256

\* 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:

[www.ncdc.noaa.gov/oa/climate/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormals.html)

# Climatology of the United States

## No. 20 1971-2000

**Station: SALT LAKE CITY INTL AP, UT**

**COOP ID: 427598**

**Climate Division: UT 3**

**NWS Call Sign: SLC**

**Elevation: 4,225 Feet Lat: 40° 47N**

**Lon: 111° 58W**

<b>Degree Days to Selected Base Temperatures (°F)</b>													
<b>Base</b>	<b>Heating Degree Days (1)</b>												
<b>Below</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Ann</b>
<b>65</b>	1108	857	665	448	215	50	3	3	89	379	747	1067	5631
<b>60</b>	956	715	525	319	130	21	0	0	42	253	613	924	4498
<b>57</b>	863	631	434	245	85	10	0	0	21	181	525	831	3826
<b>55</b>	801	575	375	202	61	5	0	0	13	140	468	769	3409
<b>50</b>	655	445	239	113	22	0	0	0	2	64	332	614	2486
<b>32</b>	217	97	9	0	0	0	0	0	0	0	38	156	517

<b>Base</b>	<b>Cooling Degree Days (1)</b>												
<b>Above</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Ann</b>
<b>32</b>	77	148	365	551	844	1129	1419	1377	1013	659	268	83	7933
<b>55</b>	0	0	4	45	181	442	706	664	336	72	2	0	2452
<b>57</b>	0	0	2	31	141	385	644	602	284	49	1	0	2139
<b>60</b>	0	0	0	16	90	304	552	510	211	25	0	0	1708
<b>65</b>	0	0	0	4	34	183	387	347	105	6	0	0	1066
<b>70</b>	0	0	0	0	6	92	251	212	43	1	0	0	605

<b>Growing Degree Units (2)</b>																								
<b>Base</b>	<b>Growing Degree Units (Monthly)</b>												<b>Growing Degree Units (Accumulated Monthly)</b>											
	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
<b>40</b>	12	49	164	325	604	899	1181	1139	782	425	111	19	12	61	225	550	1154	2053	3234	4373	5155	5580	5691	5710
<b>45</b>	0	13	69	199	450	749	1026	984	632	287	46	4	0	13	82	281	731	1480	2506	3490	4122	4409	4455	4459
<b>50</b>	0	0	25	105	307	599	871	829	483	165	12	0	0	0	25	130	437	1036	1907	2736	3219	3384	3396	3396
<b>55</b>	0	0	4	49	189	450	716	674	344	79	0	0	0	0	4	53	242	692	1408	2082	2426	2505	2505	2505
<b>60</b>	0	0	0	17	96	310	561	519	219	23	0	0	0	0	0	17	113	423	984	1503	1722	1745	1745	1745
<b>Base</b>	<b>Growing Degree Units for Corn (Monthly)</b>												<b>Growing Degree Units for Corn (Accumulated Monthly)</b>											
<b>50/86</b>	1	26	96	196	365	573	761	744	498	259	65	9	1	27	123	319	684	1257	2018	2762	3260	3519	3584	3593

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