

# Climatography of the United States

No. 20

1971-2000

Station: TRENTON, UT

COOP ID: 428828

Climate Division: UT 3

NWS Call Sign:

Elevation: 4,455 Feet Lat: 41° 55N

Lon: 111° 55W

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	31.3	10.4	20.9	54	1997	1	30.4	1994	-32+	1984	18	8.4	1979	1369	0	.0	.0	.4	14.5	30.1	6.5
Feb	37.6	14.4	26.0	63	1986	25	34.3	2000	-35	1982	6	13.5	1985	1093	0	.0	.0	2.7	7.7	27.0	3.6
Mar	48.7	23.4	36.1	73+	1986	28	42.7	1992	-8	1993	1	25.3	1985	898	0	.0	.0	14.7	.9	26.5	.8
Apr	58.9	29.6	44.3	85+	1987	26	50.7	1992	15	1997	1	37.7	1975	622	0	.0	.0	24.2	.1	19.1	.0
May	68.5	37.6	53.1	89	1983	28	58.9	1992	22	1984	7	48.9	1975	374	2	.0	.0	29.9	.0	7.2	.0
Jun	79.3	44.0	61.7	100	1988	24	66.5	1988	28	1989	21	57.1	1993	142	42	@	3.1	30.0	.0	2.3	.0
Jul	87.5	49.1	68.3	103	2000	31	73.5	1998	34	1993	13	59.0	1993	41	145	.2	12.8	31.0	.0	.0	.0
Aug	86.7	47.2	67.0	102+	1948	29	71.0	2000	28+	1992	26	62.4	1993	57	116	.2	11.2	31.0	.0	.3	.0
Sep	76.4	38.5	57.5	96+	1948	1	63.7	1990	19	1985	29	52.8	1971	245	18	.0	1.5	29.7	.0	4.2	.0
Oct	63.0	28.9	46.0	87	1992	1	52.7	1988	12	1993	31	41.8	1984	591	0	.0	.0	27.2	.1	20.1	.0
Nov	45.3	20.7	33.0	72	1999	7	40.2	1999	-17	1979	29	26.2	1994	960	0	.0	.0	10.8	2.9	26.7	.7
Dec	33.1	12.0	22.6	62	1995	2	31.5	1977	-24+	1978	30	12.9	1990	1316	0	.0	.0	1.2	13.4	29.9	4.3
Ann	59.7	29.7	44.7	103	Jul 2000	31	73.5	Jul 1998	-35	Feb 1982	6	8.4	Jan 1979	7708	323	.4	28.6	232.8	39.6	193.4	15.9

+ 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

# Climatography 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: TRENTON, UT**

**COOP ID: 428828**

**Climate Division: UT 3**

**NWS Call Sign:**

**Elevation: 4,455 Feet Lat: 41°55N**

**Lon: 111°55W**

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	1.60	1.41	2.33	1997	23	5.25	1997	.29	1984	11.0	4.8	.5	.2	.32	.46	.70	.91	1.13	1.36	1.63	1.94	2.36	3.03	3.67
Feb	1.65	1.47	1.68	1986	17	5.67	1986	.04	1988	9.1	4.4	.6	.1	.21	.34	.57	.81	1.05	1.32	1.63	2.02	2.55	3.41	4.25
Mar	1.89	1.57	1.11+	1982	11	4.99	1982	.55	1987	10.3	5.6	.7	.1	.64	.81	1.08	1.30	1.51	1.73	1.97	2.25	2.61	3.17	3.69
Apr	1.98	2.09	1.62	1986	2	4.94	1986	.31	1985	10.5	5.6	.9	.1	.55	.74	1.02	1.27	1.51	1.77	2.05	2.39	2.82	3.51	4.15
May	2.32	1.65	1.22	1980	16	5.37	1980	.26	1972	12.1	6.2	1.2	.1	.54	.75	1.09	1.40	1.70	2.02	2.38	2.82	3.38	4.28	5.13
Jun	1.21	1.16	1.28	1980	3	3.15	1980	.01	1978	6.5	3.2	.5	.1	.07	.14	.29	.46	.64	.86	1.13	1.46	1.94	2.74	3.54
Jul	.87	.88	1.69	1997	12	2.69	1997	.00	1988	4.9	2.1	.4	@	.01	.06	.17	.29	.42	.59	.79	1.05	1.41	2.04	2.67
Aug	.85	.70	2.40	1977	18	3.84	1977	.01	1985	5.5	2.2	.4	.1	.08	.15	.26	.38	.51	.65	.82	1.04	1.33	1.81	2.29
Sep	1.29	1.08	2.38	1982	26	4.04	1982	.00	1987	6.0	3.2	.7	.1	.05	.16	.35	.54	.74	.97	1.24	1.58	2.05	2.82	3.58
Oct	1.78	1.94	1.50	1983	2	4.62	1981	.00+	1988	7.4	4.1	1.1	.4	.00	.37	.73	1.01	1.28	1.56	1.87	2.22	2.70	3.46	4.17
Nov	1.40	1.31	1.11	1982	19	3.62	1983	.00	1976	9.4	4.4	.4	@	.18	.36	.60	.79	.99	1.20	1.44	1.72	2.09	2.68	3.23
Dec	1.50	1.26	1.64	1948	31	6.19	1996	.04	1976	9.6	4.5	.5	.1	.16	.27	.48	.68	.91	1.16	1.46	1.82	2.33	3.16	3.97
Ann	18.34	17.85	2.40	Aug 1977	18	6.19	Dec 1996	.00+	Oct 1988	102.3	50.3	7.9	1.4	11.08	12.40	14.13	15.48	16.70	17.90	19.15	20.55	22.28	24.82	27.06

+ 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:  
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**Climate Division: UT 3**

**NWS Call Sign:**

**Elevation: 4,455 Feet**

**Lat: 41° 55N**

**Lon: 111° 55W**

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	12.6	9.5	6	3	14.0	1997	23	39.0	1993	25	1993	14	16+	1993	6.9	4.7	1.5	.5	@	21.2	16.5	14.4	7.9
Feb	9.6	11.0	5	2	9.0	1989	1	25.8	1985	25	1985	28	19	1985	5.5	3.8	1.4	.4	.0	19.5	14.8	11.3	7.5
Mar	7.0	5.8	2	#	8.0	1985	3	25.4	1985	28	1985	3	23	1985	4.1	2.7	1.0	.2	.0	8.1	5.8	4.7	2.6
Apr	2.6	.4	#	#	6.0	1993	13	11.0	1993	15	1985	1	2	1985	1.3	.9	.3	.1	.0	.9	.5	.3	.2
May	.3	.0	#	0	1.5	1983	11	2.1	1979	1	1991	3	#	1991	.3	.2	.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	.5	1978	18	.5	1978	#	2000	23	#	2000	@	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.8	.0	#	0	6.0	1984	17	7.2	1984	3+	1984	17	#+	1997	.5	.3	.1	@	.0	.4	.1	.0	.0
Nov	7.7	3.5	1	#	7.0	1982	30	26.7	1985	12	1983	30	5	1985	3.8	2.7	1.1	.2	.0	6.4	4.3	2.2	.1
Dec	12.9	10.9	3	2	12.0	1988	25	48.0	1983	21	1983	28	14	1983	6.6	4.2	1.3	.6	.1	19.0	13.9	8.1	3.0
Ann	53.5	41.1	N/A	N/A	14.0	Jan 1997	23	48.0	Dec 1983	28	Mar 1985	3	23	Mar 1985	29.0	19.5	6.7	2.0	.1	75.5	55.9	41.0	21.3

+ 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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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	7/04	6/25	6/19	6/14	6/09	6/05	5/31	5/24	5/16
32	6/20	6/12	6/06	5/31	5/27	5/22	5/17	5/11	5/02
28	6/08	5/30	5/23	5/18	5/13	5/08	5/02	4/26	4/17
24	5/21	5/11	5/04	4/28	4/23	4/17	4/11	4/04	3/26
20	4/28	4/19	4/12	4/07	4/02	3/27	3/22	3/15	3/06
16	4/08	3/30	3/24	3/19	3/14	3/09	3/04	2/26	2/17
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	8/19	8/26	8/31	9/04	9/08	9/12	9/16	9/21	9/27
32	9/01	9/07	9/11	9/15	9/18	9/22	9/25	9/29	10/05
28	9/13	9/18	9/22	9/25	9/28	10/01	10/04	10/08	10/13
24	9/26	10/02	10/06	10/09	10/13	10/16	10/20	10/24	10/30
20	10/09	10/15	10/20	10/24	10/28	10/31	11/04	11/09	11/15
16	10/26	11/01	11/06	11/09	11/13	11/16	11/20	11/24	11/30
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	125	113	104	97	90	83	75	66	54
32	145	134	127	120	114	108	101	93	82
28	166	156	149	143	137	132	126	119	109
24	202	192	185	178	172	167	160	153	143
20	241	230	222	215	208	202	195	186	175
16	272	262	255	249	243	237	231	224	214

\* 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)**

<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>	1369	1093	898	622	374	142	41	57	245	591	960	1316	7708
<b>60</b>	1214	953	743	473	233	60	10	15	135	436	810	1161	6243
<b>57</b>	1121	869	650	388	161	29	2	5	84	345	720	1068	5442
<b>55</b>	1059	813	590	333	121	17	0	2	58	286	660	1006	4945
<b>50</b>	909	675	447	209	49	2	0	0	17	157	514	851	3830
<b>32</b>	419	255	85	9	0	0	0	0	0	2	111	333	1214

<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>	74	86	210	377	652	890	1126	1082	763	434	141	40	5875
<b>55</b>	0	0	2	11	60	216	414	371	130	5	0	0	1209
<b>57</b>	0	0	0	6	38	169	354	312	96	2	0	0	977
<b>60</b>	0	0	0	1	17	110	268	230	57	0	0	0	683
<b>65</b>	0	0	0	0	2	42	145	116	18	0	0	0	323
<b>70</b>	0	0	0	0	0	10	62	43	4	0	0	0	119

**Growing Degree Units (2)**

<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>	0	5	58	189	415	651	909	873	562	232	30	3	0	5	63	252	667	1318	2227	3100	3662	3894	3924	3927
<b>45</b>	0	0	14	92	272	501	754	718	415	117	5	0	0	0	14	106	378	879	1633	2351	2766	2883	2888	2888
<b>50</b>	0	0	0	40	154	355	599	563	277	41	0	0	0	0	0	40	194	549	1148	1711	1988	2029	2029	2029
<b>55</b>	0	0	0	11	72	224	445	410	155	10	0	0	0	0	0	11	83	307	752	1162	1317	1327	1327	1327
<b>60</b>	0	0	0	0	18	114	295	260	66	0	0	0	0	0	0	0	18	132	427	687	753	753	753	753
<b>Base</b>	<b>Growing Degree Units for Corn (Monthly)</b>												<b>Growing Degree Units for Corn (Accumulated Monthly)</b>											
<b>50/86</b>	0	5	58	160	298	443	583	563	401	216	38	0	0	5	63	223	521	964	1547	2110	2511	2727	2765	2765

(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 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> |
|---|---|

## 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)