

Climatology of the United States

No. 20

1971-2000

Station: CANYONLANDS THE NECK, UT

COOP ID: 421163

Climate Division: UT 7

NWS Call Sign:

Elevation: 5,930 Feet Lat: 38° 27N

Lon: 109° 49W

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	19.4	28.0	58	1986	21	36.4	1981	-7+	1971	6	16.8	1973	1147	0	.0	.0	1.8	9.6	29.3	.5
Feb	44.0	24.9	34.5	67	1986	26	43.5	1995	-13	1989	6	27.3	1974	855	0	.0	.0	6.4	2.4	22.9	.3
Mar	53.4	31.8	42.6	75+	1978	31	48.6	1972	0	1966	4	36.7	1976	694	0	.0	.0	20.7	.5	15.6	.0
Apr	62.4	38.5	50.5	84+	1977	18	58.4	1989	15	1973	8	44.0	1975	444	7	.0	.0	26.4	.1	8.2	.0
May	73.2	48.3	60.8	97+	1967	24	66.1	1974	22	1986	5	54.5	1995	181	48	.0	.3	30.7	.0	.9	.0
Jun	84.8	59.3	72.1	102	1994	27	77.1	1994	26	1981	14	67.0+	1998	26	237	.2	8.2	30.0	.0	.1	.0
Jul	90.5	65.1	77.8	104	1989	8	81.3	1996	44	1978	8	73.3	1992	0	396	.7	18.9	31.0	.0	.0	.0
Aug	88.0	63.3	75.7	101	1992	1	79.4	1994	41	1968	23	72.7	1999	1	330	@	12.9	31.0	.0	.0	.0
Sep	78.5	54.7	66.6	98	1979	7	72.4	1979	25	1995	22	60.9	1986	64	112	.0	2.0	30.0	.0	.2	.0
Oct	64.8	43.0	53.9	89	1980	8	60.0	1988	13	1991	31	47.6	1984	356	13	.0	.0	28.4	.1	3.8	.0
Nov	48.1	29.8	39.0	72	1980	9	45.9	1999	6	1976	28	32.3	2000	781	0	.0	.0	13.6	1.2	18.3	.0
Dec	37.8	21.0	29.4	62	1995	5	38.4	1980	-10	1990	23	21.9	1978	1104	0	.0	.0	2.2	7.1	29.1	.3
Ann	63.5	41.6	52.6	104	Jul 1989	8	81.3	Jul 1996	-13	Feb 1989	6	16.8	Jan 1973	5653	1143	.9	42.3	252.2	21.0	128.4	1.1

+ 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: 1965-2001

(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

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COOP ID: 421163

Climate Division: UT 7

NWS Call Sign:

Elevation: 5,930 Feet Lat: 38°27N

Lon: 109°49W

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	.60	.42	.64	1993	19	2.15	1978	.00+	1975	5.1	2.1	.1	.0	.00	.05	.15	.25	.34	.45	.58	.74	.96	1.32	1.67
Feb	.40	.36	.75	1996	21	1.26	1987	.00	1972	4.1	1.3	@	.0	.03	.07	.14	.20	.26	.33	.40	.50	.63	.83	1.03
Mar	.86	.70	.80	1979	29	2.43	1980	.00+	1972	5.8	2.9	.3	.0	.00	.05	.18	.31	.45	.61	.81	1.06	1.40	1.98	2.55
Apr	.81	.70	1.76	1978	9	2.61	1984	.02	2000	5.1	2.5	.3	@	.04	.09	.19	.30	.42	.57	.75	.98	1.30	1.85	2.40
May	.82	.58	.83	1995	12	3.00	1995	.01	1974	5.7	2.6	.3	.0	.05	.10	.20	.31	.44	.59	.77	1.00	1.32	1.86	2.40
Jun	.41	.29	1.26	1969	24	1.71	1984	.00+	1994	3.1	1.3	.2	.0	.00	.00	.00	.08	.17	.26	.37	.51	.71	1.04	1.36
Jul	.97	.96	1.58	1975	9	2.88	1975	.03	1979	6.3	2.8	.4	.1	.06	.12	.24	.37	.52	.69	.90	1.17	1.55	2.19	2.82
Aug	.77	.82	1.13	1999	28	2.77	1999	.00	1985	5.7	2.3	.3	@	.04	.12	.23	.35	.47	.60	.76	.95	1.21	1.64	2.06
Sep	.88	.83	.90	1984	16	2.39	1997	.03	1978	5.7	2.7	.4	.0	.07	.12	.23	.36	.49	.65	.83	1.07	1.39	1.94	2.49
Oct	1.31	1.14	1.37	1983	2	5.02	1972	.00+	1999	5.2	3.1	.8	.1	.00	.13	.36	.57	.79	1.02	1.30	1.63	2.09	2.84	3.57
Nov	.75	.68	.84	1986	1	2.96	1978	.00	1999	4.3	2.2	.3	.0	.03	.09	.20	.31	.43	.56	.72	.92	1.20	1.66	2.12
Dec	.55	.54	.70	1966	27	1.32	1978	.00+	1989	4.0	2.0	@	.0	.00	.11	.22	.30	.39	.48	.58	.69	.84	1.08	1.31
Ann	9.13	9.41	1.76	Apr 1978	9	5.02	Oct 1972	.00+	Nov 1999	60.1	27.8	3.4	.2	5.67	6.31	7.14	7.78	8.36	8.93	9.53	10.19	11.00	12.20	13.25

+ 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

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www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

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Climate Division: UT 7

NWS Call Sign:

Elevation: 5,930 Feet

Lat: 38° 27N

Lon: 109° 49W

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	5.1	4.2	3	2	9.1	1973	4	16.3	1973	24	1973	4	18	1973	3.7	2.2	.6	.2	.0	15.2	9.8	5.0	1.3
Feb	1.9	1.4	1	#	6.0	1987	27	6.0	1987	14	1973	4	10	1973	2.0	.8	.2	.1	.0	8.1	4.2	1.8	.5
Mar	4.0	2.4	#	#	15.0	1976	4	20.0	1976	13	1976	6	2	1976	1.8	1.1	.4	.2	@	2.4	1.1	.4	.1
Apr	1.9	.0	#	#	6.0	1975	1	9.2	1984	6	1975	1	#+	1999	1.0	.8	.3	.1	.0	.5	.2	.1	.0
May	.1	.0	#	0	2.0	1975	5	2.0	1975	2	1979	10	#+	1993	.1	.1	.0	.0	.0	.1	.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	.9	.0	#	0	6.0	1975	23	6.2	1984	5	1991	30	#+	2000	.4	.3	.1	@	.0	.4	.2	.1	.0
Nov	2.4	1.0	#	#	7.0	1979	20	8.8	1983	5	1993	12	1	1992	1.5	.8	.4	.1	.0	1.8	.4	.1	.0
Dec	5.8	5.5	1	1	8.2	1972	29	19.2	1972	16	1972	31	4	1972	2.9	2.0	.6	.2	.0	10.2	4.8	1.8	.1
Ann	22.1	14.5	N/A	N/A	15.0	Mar 1976	4	20.0	Mar 1976	24	Jan 1973	4	18	Jan 1973	13.4	8.1	2.6	.9	@	38.7	20.7	9.3	2.0

+ 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	6/02	5/27	5/23	5/20	5/16	5/13	5/10	5/06	4/30
32	5/22	5/16	5/12	5/08	5/04	5/01	4/27	4/23	4/16
28	5/14	5/06	4/30	4/25	4/20	4/16	4/11	4/05	3/28
24	4/23	4/15	4/10	4/06	4/01	3/28	3/24	3/18	3/11
20	4/06	3/27	3/20	3/14	3/08	3/02	2/24	2/17	2/07
16	3/28	3/17	3/09	3/02	2/23	2/17	2/09	2/01	1/21
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	9/20	9/27	10/02	10/06	10/09	10/13	10/17	10/22	10/28
32	10/01	10/07	10/12	10/15	10/19	10/22	10/26	10/31	11/06
28	10/16	10/21	10/26	10/29	11/01	11/05	11/08	11/13	11/18
24	10/22	10/28	11/01	11/05	11/08	11/12	11/15	11/19	11/25
20	10/30	11/06	11/10	11/15	11/18	11/22	11/26	12/01	12/08
16	11/05	11/14	11/20	11/25	12/01	12/06	12/11	12/17	12/26
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	173	163	156	151	145	140	134	127	118
32	191	182	177	172	167	162	157	151	143
28	224	214	207	200	194	188	182	175	164
24	247	238	231	225	220	215	209	202	193
20	293	280	270	262	255	247	239	230	217
16	319	305	296	287	280	272	264	254	241

* 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	1147	855	694	444	181	26	0	1	64	356	781	1104	5653
60	992	715	542	310	92	7	0	0	21	231	631	949	4490
57	899	631	454	240	55	2	0	0	9	168	543	856	3857
55	837	575	398	199	37	1	0	0	5	132	485	794	3463
50	687	438	267	115	11	0	0	0	1	65	347	639	2570
32	230	78	19	3	0	0	0	0	0	0	37	160	527

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	106	146	347	556	891	1201	1419	1353	1038	680	246	79	8062
55	0	0	13	62	215	512	706	640	353	98	4	0	2603
57	0	0	8	44	171	453	644	578	297	72	2	0	2269
60	0	0	3	24	114	368	551	485	219	42	0	0	1806
65	0	0	0	7	48	237	396	330	112	13	0	0	1143
70	0	0	0	0	15	133	246	185	42	3	0	0	624

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	5	38	159	338	646	967	1178	1115	812	454	98	9	5	43	202	540	1186	2153	3331	4446	5258	5712	5810	5819
45	0	11	76	218	495	817	1023	960	663	314	41	0	0	11	87	305	800	1617	2640	3600	4263	4577	4618	4618
50	0	1	29	124	351	667	868	805	517	194	14	0	0	1	30	154	505	1172	2040	2845	3362	3556	3570	3570
55	0	0	6	56	224	519	713	650	369	108	1	0	0	0	6	62	286	805	1518	2168	2537	2645	2646	2646
60	0	0	0	17	119	373	558	495	238	43	0	0	0	0	0	17	136	509	1067	1562	1800	1843	1843	1843
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	18	97	206	398	642	786	753	525	263	52	1	0	18	115	321	719	1361	2147	2900	3425	3688	3740	3741

(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