

Climatography of the United States

No. 20

1971-2000

Station: ALLEN'S RANCH, UT

COOP ID: 420050

Climate Division: UT 5

NWS Call Sign:

Elevation: 5,490 Feet Lat: 40° 54N

Lon: 109° 09W

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	39.0	11.6	25.3	60	1970	23	32.8	1999	-35	1963	12	15.3	1984	1230	0	.0	.0	3.8	8.0	30.4	5.6
Feb	44.3	16.5	30.4	68	1986	28	35.5	1986	-29+	1989	7	20.0	1989	970	0	.0	.0	7.0	3.0	27.2	2.8
Mar	52.7	24.4	38.6	75	1986	29	45.2	1986	-2	1971	1	34.4	1987	820	0	.0	.0	18.7	.7	27.3	@
Apr	62.3	30.5	46.4	90	1992	30	52.7	1992	7	1997	11	40.7	1983	559	0	.0	@	26.0	.1	18.5	.0
May	72.5	38.5	55.5	93	2000	29	59.3	1992	13	1972	1	49.5	1995	299	6	.0	.2	30.3	.0	5.4	.0
Jun	84.2	45.3	64.8	101	2001	30	70.0	1988	27+	2001	5	59.1	1995	94	86	.1	7.4	30.0	.0	.2	.0
Jul	91.2	51.4	71.3	108	1963	26	75.2	1989	36	2000	5	66.3	1993	10	205	.7	18.6	31.0	.0	.0	.0
Aug	89.6	49.2	69.4	105	1970	1	72.6	1971	30+	1964	30	65.1	1975	16	152	.2	13.8	31.0	.0	.1	.0
Sep	79.4	40.8	60.1	97+	1998	3	65.7	1990	7	1965	18	55.0	1996	177	30	.0	1.8	29.8	.0	4.8	.0
Oct	66.3	30.8	48.6	86	2001	1	53.3	1988	-6	1971	30	44.2	1984	511	0	.0	.0	28.5	.2	18.6	@
Nov	49.4	21.8	35.6	74	1999	7	42.6	1989	-14	1977	21	28.1	2000	882	0	.0	.0	13.4	2.5	27.2	1.0
Dec	40.0	13.6	26.8	65	1995	1	35.9	1980	-35+	1990	21	15.9	1990	1184	0	.0	.0	3.3	7.4	30.2	3.4
Ann	64.2	31.2	47.7	108	Jul 1963	26	75.2	Jul 1989	-35+	Dec 1990	21	15.3	Jan 1984	6752	479	1.0	41.8	252.8	21.9	189.9	12.8

+ 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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1962-2001

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

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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: ALLEN'S RANCH, UT

COOP ID: 420050

Climate Division: UT 5

NWS Call Sign:

Elevation: 5,490 Feet Lat: 40°54N

Lon: 109°09W

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	.32	.28	.40	1999	19	1.11	1999	.04	1988	4.1	1.3	.0	.0	.05	.07	.12	.17	.21	.26	.32	.40	.49	.65	.81
Feb	.43	.31	1.30	1990	1	2.03	1990	.01	1972	3.9	1.4	.1	@	.02	.04	.09	.15	.22	.30	.39	.52	.69	.99	1.29
Mar	.77	.70	1.22	1993	28	1.69	1979	.10	1971	6.2	2.7	.2	@	.18	.25	.37	.47	.57	.68	.79	.94	1.12	1.42	1.70
Apr	.95	.75	.90+	1973	18	3.98	1999	.10	1987	7.1	3.1	.4	.0	.13	.20	.34	.47	.61	.76	.94	1.16	1.45	1.94	2.40
May	1.30	.94	1.81	1975	20	4.21	1995	.10	1974	7.5	3.5	.4	.1	.20	.31	.50	.68	.86	1.07	1.30	1.59	1.98	2.60	3.20
Jun	.73	.52	1.03	1970	11	2.57	1990	.00	1980	4.6	2.3	.4	@	.03	.09	.19	.30	.41	.54	.70	.89	1.16	1.61	2.04
Jul	.65	.48	1.10	1977	24	1.89	1998	.08	1979	5.6	2.4	.2	@	.08	.13	.22	.32	.41	.52	.64	.80	1.01	1.35	1.68
Aug	.66	.56	.79	1978	13	1.71	1997	.00	1985	5.8	2.3	.2	.0	.07	.15	.26	.35	.45	.55	.67	.82	1.01	1.31	1.60
Sep	1.03	.89	1.41	2000	22	3.33	1982	.04	1994	6.1	3.1	.5	.1	.14	.22	.37	.51	.66	.83	1.02	1.26	1.58	2.11	2.62
Oct	1.07	.89	1.86	1994	3	4.01	1994	.00	1988	5.8	3.0	.4	.1	.03	.10	.24	.39	.56	.75	.99	1.30	1.72	2.44	3.16
Nov	.55	.39	.75	1996	5	2.30	1978	.00	1976	4.8	1.7	.1	.0	.04	.10	.19	.27	.36	.45	.55	.68	.86	1.14	1.41
Dec	.44	.31	.69	1964	27	2.41	1983	.00	1976	3.9	1.7	.1	@	.03	.07	.14	.20	.27	.35	.44	.54	.69	.93	1.16
Ann	8.90	8.85	1.86	Oct 1994	3	4.21	May 1995	.00+	Oct 1988	65.4	28.5	3.0	.3	5.29	5.94	6.81	7.48	8.08	8.68	9.31	10.01	10.88	12.16	13.28

+ 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: 1962-2001

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

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Station: ALLEN'S RANCH, UT

COOP ID: 420050

Climate Division: UT 5

NWS Call Sign:

Elevation: 5,490 Feet

Lat: 40° 54N

Lon: 109° 09W

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	4.4	3.4	1	1	4.7	1980	27	14.9	1980	12	1984	23	9	1984	2.0	1.5	.4	.0	.0	6.7	4.2	3.1	.8
Feb	1.8	1.0	1	#	7.3	1990	13	10.0	1996	17	1989	3	9	1989	1.6	.9	.2	.2	.0	5.1	3.0	.4	.0
Mar	1.3	.0	#	0	4.2	1983	25	13.3	1983	3	1983	25	#+	2000	1.0	.5	.1	.0	.0	.5	.1	.0	.0
Apr	.5	.0	#	0	4.0	1999	8	5.1	1982	3	1999	1	#+	1999	.5	.3	.1	.0	.0	.0	.0	.0	.0
May	.1	.0	0	0	2.8	1983	11	2.8	1983	0	0	0	0	0	@	@	.0	.0	.0	.0	.0	.0	.0
Jun	#	.0	#	0	#	1976	13	#	1976	#	1976	13	#	1976	.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	1.1	.0	#	0	12.0	1971	28	19.0	1971	19	1971	30	2	1971	.2	.2	.1	.1	@	.4	.3	.3	.2
Nov	2.9	.0	#	0	13.0	1977	19	19.5	1983	10	1973	3	3	1973	.9	.7	.4	.2	.1	1.3	.2	.1	.0
Dec	4.3	4.1	1	#	8.0	1983	15	9.2	1988	13	1983	25	6	1983	2.2	1.8	.3	.1	.0	-9.9	-9.9	-9.9	-9.9
Ann	16.4	8.5	N/A	N/A	13.0	Nov 1977	19	19.5	Nov 1983	19	Oct 1971	30	9+	Feb 1989	8.4	5.9	1.6	.6	.1	-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

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NWS Call Sign:

Elevation: 5,490 Feet

Lat: 40° 54N

Lon: 109° 09W

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	6/26	6/20	6/17	6/13	6/10	6/07	6/04	5/31	5/26
32	6/02	5/28	5/25	5/23	5/20	5/18	5/15	5/12	5/08
28	5/24	5/19	5/15	5/12	5/09	5/06	5/03	4/29	4/24
24	5/06	4/30	4/26	4/22	4/19	4/16	4/12	4/08	4/02
20	4/28	4/21	4/15	4/11	4/07	4/03	3/29	3/24	3/17
16	4/25	4/17	4/10	4/05	3/31	3/26	3/21	3/15	3/06
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	8/23	8/29	9/02	9/06	9/09	9/13	9/16	9/21	9/27
32	9/05	9/10	9/13	9/16	9/19	9/22	9/25	9/28	10/03
28	9/10	9/16	9/20	9/23	9/26	9/29	10/03	10/06	10/12
24	9/21	9/27	10/02	10/06	10/09	10/13	10/17	10/21	10/28
20	10/03	10/09	10/13	10/17	10/21	10/25	10/29	11/02	11/08
16	10/22	10/27	10/31	11/03	11/05	11/08	11/11	11/15	11/19
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	117	108	101	96	90	85	79	73	63
32	139	133	128	125	121	118	114	110	104
28	158	151	147	143	139	136	132	127	121
24	195	188	182	177	173	168	163	158	150
20	224	214	208	202	196	191	185	178	169
16	250	239	231	225	219	212	206	198	187

* 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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COOP ID: 420050

Climate Division: UT 5 NWS Call Sign: Elevation: 5,490 Feet Lat: 40° 54N Lon: 109° 09W

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	1230	970	820	559	299	94	10	16	177	511	882	1184	6752
60	1075	830	665	414	169	34	1	2	84	358	732	1029	5393
57	982	746	572	331	108	15	0	0	47	271	642	936	4650
55	920	690	511	279	76	8	0	0	29	217	582	874	4186
50	765	550	362	168	25	1	0	0	6	107	437	719	3140
32	273	134	28	5	0	0	0	0	0	1	69	220	730

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	66	89	231	436	730	983	1218	1159	843	513	177	59	6504
55	0	0	1	20	92	301	505	446	182	17	0	0	1564
57	0	0	0	12	63	248	443	384	140	8	0	0	1298
60	0	0	0	5	31	177	351	293	87	2	0	0	946
65	0	0	0	0	6	86	205	152	30	0	0	0	479
70	0	0	0	0	0	31	89	50	6	0	0	0	176

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	5	58	207	473	733	955	892	586	273	40	1	0	5	63	270	743	1476	2431	3323	3909	4182	4222	4223
45	0	0	12	104	324	583	800	737	437	145	10	0	0	0	12	116	440	1023	1823	2560	2997	3142	3152	3152
50	0	0	0	37	189	433	645	582	299	56	0	0	0	0	0	37	226	659	1304	1886	2185	2241	2241	2241
55	0	0	0	6	86	289	490	427	172	12	0	0	0	0	0	6	92	381	871	1298	1470	1482	1482	1482
60	0	0	0	1	20	161	337	276	70	0	0	0	0	0	0	1	21	182	519	795	865	865	865	865
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	2	20	79	188	342	486	591	573	428	250	54	2	2	22	101	289	631	1117	1708	2281	2709	2959	3013	3015

(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

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