### 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

**COOP ID: 421267** 

Lon: 113°06W

**Station: CEDAR CITY AP, UT** 

Climate Division: UT 4 NWS Call Sign: CDC

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 41.8 18.5 30.2 70 1990 9 37.1 1986 -26 1951 31 20.0 1973 1080 0 .0 .0 7.5 4.6 28.6 1.9 Jan 46.7 22.8 34.8 73 1986 25 43.7 1995 -24 1989 6 27.9 1989 846 0 .0 .0 12.1 2.0 24.0 .9 Feb Mar 53.5 28.4 41.0 77 1966 31 46.7 1972 -1+1952 14 34.8 1973 745 0 .0 .0 21.4 .3 22.0 0. 33.7 47.5 1992 1975 2 Apr 61.2 83+ 1981 30 54.0 +6 1975 2 40.8 529 .0 .0 26.1 .0 13.1 .0 May 71.1 41.5 56.3 96 1984 29 62.4 2000 21 1988 2 51.3 1971 292 22 .0 .4 30.4 .0 2.9 .0 50.1 72.9 1994 27 14 7.9 .2 83.1 66.6 101 +1961 21 2001 60.4 1998 78 126 .1 30.0 .0 .0 Jun Jul 89.4 57.8 73.6 105 1989 7 77.1 40+ 1982 70.7 1982 3 270 .9 18.9 31.0 0. 1996 6 .0 .0 1972 87.1 56.8 72.0 100 +1978 6 75.1 1994 36 1968 23 68.9 4 220 .1 13.3 31.0 .0 .0 .0 Aug 23 Sep 78.9 47.6 63.3 97 1950 1 67.8 1979 1965 18 57.7 1986 112 61 .0 2.2 29.9 .0 1.0 .0 57.6 44.8 1984 Oct 66.1 36.0 51.1 88 1996 9 1988 -7 1971 30 436 3 .0 .0 28.6 .1 9.4 @ 25.9 38.8 75 1976 8 45.6 1995 -7 1956 20 30.9 1994 788 0 .0 .0 18.4 23.6 Nov 51.6 .9 .1 Dec 42.7 18.6 30.7 68 1977 3 38.1 1977 -23 1990 23 20.8 1990 1065 0 .0 .0 8.5 4.3 28.6 1.5 Jul Jul Jan Jan 64.4 36.5 50.5 105 1989 7 77.1 1996 -26 1951 31 20.0 1973 5978 704 1.1 42.7 274.9 12.2 153.4 4.4 Ann

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Issue Date: February 2004 019-A

(1) From the 1971-2000 Monthly Normals

Elevation: 5,587 Feet Lat: 37°42N

- (2) Derived from station's available digital record: 1948-2001
- (3) Derived from 1971-2000 serially complete daily data

<sup>+</sup> Also occurred on an earlier date(s)

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

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**Station: CEDAR CITY AP, UT** 

Climate Division: UT 4 NWS Call Sign: CDC Elevation: 5,587 Feet Lat: 37°42N Lon: 113°06W

										Pı	recipi	tation	(incl	hes)										
	Me	Precipitation Totals  Means/ Medians(1)  Extremes										ays (3	3)	Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount  Monthly/Annual Precipitation vs Probability Levels										
	Medi	ans(1)				Extreme	•			Daily Precipitation				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	.90	.73	1.21	1980	14	2.98	1980	.05	1999	6.4	2.8	.3	.1	.04	.09	.19	.31	.45	.61	.82	1.08	1.45	2.08	2.71
Feb	.97	.84	1.60	1965	6	2.38	1980	.00	1972	6.5	2.9	.3	.0	.16	.30	.46	.59	.72	.86	1.01	1.18	1.41	1.78	2.12
Mar	1.34	1.19	1.28	1961	18	2.97	1978	.00	1972	8.8	4.3	.4	@	.15	.32	.54	.73	.93	1.13	1.37	1.65	2.02	2.61	3.18
Apr	1.00	.98	1.07	1974	2	3.14	1988	.08	1989	6.6	3.0	.5	@	.15	.24	.38	.52	.66	.82	1.00	1.22	1.52	2.00	2.46
May	.91	.86	1.25	1977	14	2.16	1981	.00	1974	6.1	2.8	.3	.1	.08	.18	.33	.46	.60	.75	.92	1.12	1.39	1.83	2.26
Jun	.45	.33	1.01	1970	7	1.89	1995	.00+	1996	3.2	1.4	@	.0	.00	.00	.09	.17	.25	.34	.44	.57	.74	1.03	1.31
Jul	.93	.75	1.62	1975	28	4.37	1975	.04	1994	5.3	2.5	.5	@	.10	.17	.30	.44	.57	.73	.91	1.14	1.45	1.96	2.46
Aug	1.15	.92	2.02	1963	19	4.38	1984	.00	1985	6.4	2.8	.5	.2	.06	.16	.33	.50	.68	.88	1.12	1.41	1.82	2.48	3.13
Sep	.83	.64	2.10	1967	24	2.96	1980	.00+	1984	4.7	1.9	.5	.1	.00	.03	.14	.26	.40	.56	.76	1.01	1.37	1.98	2.60
Oct	1.30	1.18	1.40	1996	13	3.33	1972	.00	1995	5.8	3.4	.7	.1	.11	.26	.47	.66	.85	1.07	1.31	1.60	2.00	2.64	3.25
Nov	.97	.82	1.02	1987	14	2.63	1994	.09	1992	5.6	2.7	.5	@	.10	.18	.31	.44	.59	.75	.94	1.18	1.50	2.04	2.56
Dec	.65	.66	1.07	1995	13	1.40	1971	.00+	1989	5.8	2.1	.2	@	.00	.16	.29	.39	.49	.58	.69	.81	.96	1.21	1.45
Ann	11.40	11.48	2.10	Sep 1967	24	4.38	Aug 1984	.00+	Jun 1996	71.2	32.6	4.7	.6	7.32	8.07	9.06	9.82	10.50	11.16	11.86	12.63	13.57	14.96	16.17

<sup>+</sup> Also occurred on an earlier date(s)

Complete documentation available from:

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

<sup>#</sup> Denotes amounts of a trace

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>\*\*</sup> Statistics not computed because less than six years out of thirty had measurable precipitation

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1948-2001

<sup>(3)</sup> Derived from 1971-2000 serially complete daily data

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**COOP ID: 421267** 

Station: CEDAR CITY AP, UT

Climate Division: UT 4 NWS Call Sign: CDC Elevation: 5,587 Feet Lat: 37°42N Lon: 113°06W

										Snov	w (inc	hes)												
						Sno	ow To	tals							Mean Number of Days (1)									
	Mean	s/Medi	ians (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	9.1	6.6	2	1	9.0	1974	21	30.6	1982	11	1973	5	6+	1974	5.1	3.0	1.2	.3	.0	13.8	8.1	3.9	.2	
Feb	9.0	9.3	1	1	13.1	1989	4	34.2	1971	13+	1989	6	5	1979	4.4	2.4	1.0	.5	.2	9.5	4.7	2.4	.5	
Mar	8.5	7.2	#	1	8.0	1998	6	19.8	1973	8+	1998	7	1+	1998	4.7	3.1	1.0	.4	.0	3.8	1.6	.5	.0	
Apr	5.2	3.5	#	1	7.0	1973	1	20.8	1973	7	1975	1	1	1975	2.9	1.9	.6	.2	.0	1.7	.6	.3	.0	
May	1.5	.0	#	0	8.9	1975	20	8.9	1975	6+	1979	8	#	1998	.8	.5	.1	@	.0	.1	.1	.1	.0	
Jun	.1	.0	#	0	2.0	1993	6	2.6	1993	#	1993	6	#	1993	.1	.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	.1	.0	#	0	1.6	1986	25	1.6	1986	1	1982	30	#	1982	.1	.0	.0	.0	.0	@	.0	.0	.0	
Oct	2.3	.1	#	0	9.6	1991	27	18.8	1991	9	1991	28	1+	1991	1.0	.6	.3	.2	.0	.6	.4	.2	.0	
Nov	6.1	3.7	#	0	14.1	1994	18	31.6	1994	15	1994	20	4	1994	3.2	1.7	.7	.2	@	4.0	1.6	.8	.1	
Dec	6.0	3.7	1	1	14.9	1982	7	21.2	1982	15+	1982	8	3	1972	3.6	1.9	.7	.3	.1	8.4	4.0	1.0	.2	
Ann	47.9	34.1	N/A	N/A	14.9	Dec 1982	7	34.2	Feb 1971	15+	Nov 1994	20	6+	Jan 1974	25.9	15.1	5.6	2.1	.3	41.9	21.1	9.2	1.0	

<sup>+</sup> Also occurred on an earlier date(s) #Denotes trace amounts

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>-9/-9.9</sup> represents missing values Annual statistics for Mean/Median snow depths are not appropriate

<sup>(1)</sup> Derived from Snow Climatology and 1971-2000 daily data

<sup>(2)</sup> Derived from 1971-2000 daily data

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				Freez	ze Data							
			Spri	ng Freeze D	ates (Month/	(Day)						
Temp (F)		P	robability of	later date i	n spring (thr	u Jul 31) tha	n indicated(	(*)				
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90			
36	6/21	6/16	6/12	6/08	6/05	6/02	5/30	5/26	5/20			
32	6/07	6/01	5/28	5/24	5/21	5/18	5/14	5/10	5/04			
28	5/15	5/10	5/06	5/03	4/30	4/27	4/24	4/20	4/15			
24	5/02	4/26	4/21	4/17	4/14	4/10	4/06	4/01	3/26			
20	4/21	4/13	4/06	4/01	3/27	3/22	3/17	3/10	3/02			
16	4/04	3/26	3/20	3/15	3/10	3/05	2/27	2/21	2/12			
<u>'</u>			Fal	l Freeze Da	tes (Month/D	ay)		1	II.			
Probability of earlier date in fall (beginning Aug 1) than indicated(*)												
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90			
36	9/10	9/14	9/18	9/21	9/24	9/26	9/29	10/03	10/08			
32	9/15	9/21	9/25	9/28	10/01	10/05	10/08	10/12	10/18			
28	9/25	10/01	10/06	10/10	10/14	10/18	10/22	10/27	11/03			
24	10/10	10/16	10/20	10/24	10/27	10/30	11/03	11/08	11/14			
20	10/24	10/28	11/01	11/04	11/06	11/09	11/12	11/15	11/20			
16	10/27	11/02	11/07	11/11	11/15	11/18	11/22	11/27	12/03			
				Freeze F	ree Period	1	1	•	II.			
T (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days)	)				
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90			
36	131	124	119	114	110	106	101	96	88			
32	160	150	144	138	133	127	122	115	106			
28	192	183	177	171	166	161	156	150	141			
24	223	213	207	201	196	190	185	178	169			
20	253	243	236	229	224	218	212	205	195			
16	285	272	264	256	249	242	235	226	214			

<sup>\*</sup> 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						Heatin	g Degree l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1080	846	745	529	292	78	3	4	112	436	788	1065	5978		
60	925	706	590	388	177	30	0	0	46	293	638	910	4703		
57	832	622	499	308	123	15	0	0	23	218	548	817	4005		
55	770	566	440	259	93	9	0	0	13	173	489	755	3567		
50	622	432	301	158	39	2	0	0	2	85	348	601	2590		
32	181	73	20	5	0	0	0	0	0	0	34	164	477		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	124	151	298	468	753	1038	1290	1239	939	590	237	122	7249
55	0	0	5	32	133	356	577	526	261	50	1	0	1941
57	0	0	2	21	101	302	515	464	211	33	0	0	1649
60	0	0	0	11	62	228	422	371	144	15	0	0	1253
65	0	0	0	2	22	126	270	220	61	3	0	0	704
70	0	0	0	0	5	56	133	91	16	0	0	0	301

	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	16	47	124	270	531	822	1068	1011	722	376	100	17	16	63	187	457	988	1810	2878	3889	4611	4987	5087	5104
45	0	11	51	155	382	672	913	856	572	243	39	2	0	11	62	217	599	1271	2184	3040	3612	3855	3894	3896
50	0	0	12	74	243	523	758	701	426	129	9	0	0	0	12	86	329	852	1610	2311	2737	2866	2875	2875
55	0	0	0	21	130	380	603	546	286	50	0	0	0	0	0	21	151	531	1134	1680	1966	2016	2016	2016
60	<b>60</b> 0 0 0 2 51 245 448 391 158 13 0 0								0	0	0	2	53	298	746	1137	1295	1308	1308	1308				
Base				Gro	wing De	gree Unit	s for Co	rn (Mont	hly)						Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	24	51	113	205	355	527	681	655	474	281	92	25	24	75	188	393	748	1275	1956	2611	3085	3366	3458	3483

(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

### 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.

Compete documentation for the 1971-2000 Normals is available on the internet from:

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

- c. Snow Tables
  - 1. Snow Climatology
  - 2. Cooperative Summary of the Day
- d. Freeze Data Table

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

### References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html

U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/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