### 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: 266779** 

Lon: 119°46W

 ${\bf Station: RENO\ CANNON\ INTL\ AP,\ NV}$ 

Climate Division: NV 1 NWS Call Sign: RNO Elevation: 4,410 Feet Lat: 39°29N

									ŗ	Tempe	eratui	re (°F)									
	Mea	<b>n</b> (1)						Extr	emes						Days (1) emp 65		Mean	Numb	er of I	Days (3)	
Month	Daily Max	Daily Min	Mean	n 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	45.5	21.8	33.6	70	1967	15	40.3	1986	-16+	1942	2	25.7	1993	984	0	.0	.0	10.7	3.1	27.6	.9
Feb	51.7	25.4	38.5	75	1986	28	46.0	1995	-16	1989	7	30.8	1990	756	0	.0	.0	16.1	1.0	23.9	.2
Mar	57.2	29.3	43.3	83	1966	31	48.7	1994	-2	1945	18	38.3	1973	683	0	.0	.0	23.8	@	21.2	@
Apr	64.1	33.2	48.6	89	1981	30	55.8	1992	13+	1945	13	40.2	1975	502	0	.0	.0	27.4	.0	14.5	.0
May	72.6	40.2	56.4	96+	1986	29	64.9	1992	18	1964	2	48.7	1977	285	11	.0	1.0	30.5	.0	4.2	.0
Jun	82.8	46.5	64.7	104	1940	16	70.9	2000	25	1954	6	59.8	1971	91	72	.1	7.3	30.0	.0	.4	.0
Jul	91.2	51.4	71.3	104+	1945	26	77.2	1994	33+	1960	11	67.1	1974	12	204	2.0	19.8	31.0	.0	.0	.0
Aug	89.9	49.9	69.9	105+	1940	11	74.9	1998	24	1962	29	62.5	1976	22	164	1.2	17.0	31.0	.0	@	.0
Sep	81.7	43.1	62.4	101	1950	2	65.8+	1999	20+	1965	18	56.3	1986	130	41	.1	5.2	29.9	.0	2.1	.0
Oct	69.9	34.0	52.0	91+	1965	8	58.4	1988	8	1971	29	46.5	1971	416	1	.0	.1	29.5	.0	13.1	.0
Nov	55.3	26.4	40.9	77+	1949	3	46.7	1999	1	1958	17	35.1	1994	732	0	.0	.0	20.3	.3	24.1	.0
Dec	46.4	20.7	33.6	71	1940	3	39.5	1981	-16	1972	9	25.4	1978	987	0	.0	.0	11.9	2.8	28.3	.9
Ann	67.4	35.2	51.3	105+	Aug 1940	11	77.2	Jul 1994	-16+	Feb 1989	7	25.4	Dec 1978	5600	493	3.4	50.4	292.1	7.2	159.4	2.0

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

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

Issue Date: February 2004 045-A

- (1) From the 1971-2000 Monthly Normals
- (2) Derived from station's available digital record: 1937-2001
- (3) Derived from 1971-2000 serially complete daily data

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

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Station: RENO CANNON INTL AP, NV

Climate Division: NV 1 NWS Call Sign: RNO Elevation: 4,410 Feet Lat: 39°29N Lon: 119°46W

										Pı	recipi	tation	(incl	nes)										
		ans/	P	recipi	itatio	on Total  Extremes					ean N of D	ays (3	5)	Proba		M	nonthly/ onthly/Ar	annual j indic	precipita ated am	ount vs Proba	ies (1)  Il be equ	els		ın the
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	1.06	.71	2.29	1943	21	3.32	1997	.01	1991	6.9	3.0	.4	.1	.05	.11	.23	.37	.54	.73	.97	1.27	1.70	2.43	3.17
Feb	1.06	.79	1.80	1990	16	4.84	1986	.02	1988	7.0	2.8	.5	.1	.08	.15	.28	.43	.59	.78	1.01	1.29	1.69	2.36	3.02
Mar	.86	.75	1.09	1995	10	2.87	1995	.00	1988	6.8	2.7	.2	@	.02	.07	.18	.30	.44	.60	.79	1.04	1.39	1.98	2.57
Apr	.35	.29	1.56	1952	25	1.35	1983	.00+	1985	3.9	1.2	.1	.0	.00	.02	.08	.13	.19	.26	.34	.44	.57	.80	1.03
May	.62	.27	1.76	1987	17	2.38	1971	.00	1985	4.3	2.0	.2	@	.01	.03	.10	.18	.28	.39	.54	.74	1.02	1.51	2.00
Jun	.47	.27	.64	1995	15	1.53	1989	.00+	1994	3.6	1.6	.2	.0	.00	.00	.02	.10	.18	.29	.41	.58	.81	1.20	1.60
Jul	.24	.10	.80	1949	12	1.06	1971	.00+	2000	2.0	.7	.1	.0	.00	.00	.00	.02	.06	.11	.18	.27	.42	.68	.96
Aug	.27	.16	.95	1941	14	1.03	1975	.00+	1998	2.1	.8	@	.0	.00	.00	.00	.03	.08	.13	.21	.31	.46	.73	1.01
Sep	.45	.22	.80	1950	10	2.31	1982	.00+	1995	3.3	1.3	.1	.0	.00	.00	.00	.04	.10	.18	.31	.48	.75	1.25	1.77
Oct	.42	.33	1.46	1962	13	1.65	1982	.00	1995	3.3	1.2	.1	@	.01	.04	.10	.16	.22	.30	.39	.51	.67	.94	1.21
Nov	.80	.48	1.64	1988	23	3.08	1983	.01	1999	5.0	2.3	.3	.1	.02	.05	.13	.23	.35	.50	.69	.94	1.31	1.95	2.60
Dec	.88	.59	2.02	1955	23	3.03	1996	.00	1989	5.4	2.2	.5	.1	.00	.03	.10	.20	.33	.50	.72	1.02	1.46	2.24	3.04
Ann	7.48	6.76	2.29	Jan 1943	21	4.84	Feb 1986	.00+	Jul 2000	53.6	21.8	2.7	.4	3.76	4.39	5.24	5.92	6.55	7.18	7.84	8.59	9.54	10.95	12.21

<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: 1937-2001

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

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Station: RENO CANNON INTL AP, NV

Climate Division: NV 1 NWS Call Sign: RNO Elevation: 4,410 Feet Lat: 39°29N Lon: 119°46W

										Snov	w (incl	hes)											
						Sn	ow To	tals									Mea	n Nu	mber	of Day	ys (1)		
	Mean	s/Medi	ians (1)	)					Extre	mes (2)							ow Fa					Depth esholo	
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	4.9	3.9	1	0	4.7	1972	27	22.9	1993	13	1993	18	6	1993	4.3	1.8	.6	.0	.0	6.8	3.2	1.5	.4
Feb	5.4	2.3	#	0	18.0	1990	16	21.6	1990	13	1990	17	3	1990	3.5	1.6	.5	.2	@	3.1	1.5	.8	.2
Mar	3.3	2.2	#	0	5.0	1975	21	12.1	1975	5	1971	5	#	1995	3.2	1.1	.2	@	.0	1.2	.2	@	.0
Apr	.9	.4	#	0	2.5	1975	5	4.8	1975	4	1975	5	#	1983	1.4	.4	.0	.0	.0	.3	@	.0	.0
May	.7	.0	#	0	5.0	1971	20	6.3	1971	2	1983	10	#	1995	.6	.2	.1	@	.0	.1	.0	.0	.0
Jun	.0	.0	#	0	.2	1995	7	.2	1995	0	0	0	#	1996	.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	.1	.0	#	0	1.5	1982	29	1.5	1982	1	1982	29	#	1982	.0	.0	.0	.0	.0	@	.0	.0	.0
Oct	.5	.0	#	0	3.7	1971	16	5.1	1971	2	1971	16	#	1985	.4	.2	.1	.0	.0	.1	.0	.0	.0
Nov	3.1	.5	#	0	15.2	1985	10	16.5	1985	10	1985	11	2	1985	1.8	.8	.4	@	@	1.8	.8	.3	@
Dec	4.4	1.6	#	0	14.9	1971	25	25.6	1971	9+	1992	30	2+	1978	3.3	1.3	.4	.2	@	3.2	1.7	.8	.0
Ann	23.3	10.9	N/A	N/A	18.0	Feb 1990	16	25.6	Dec 1971	13+	Jan 1993	18	6	Jan 1993	18.5	7.4	2.3	.4	@	16.6	7.4	3.4	.6

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

- (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/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

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Lon: 119°46W

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**Station: RENO CANNON INTL AP, NV** 

Climate Division: NV 1 NWS Call Sign: RNO

				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	7/04	6/26	6/20	6/15	6/10	6/06	6/01	5/26	5/18
32	6/13	6/05	5/31	5/26	5/21	5/17	5/12	5/07	4/29
28	5/20	5/13	5/08	5/04	4/30	4/26	4/22	4/17	4/10
24	5/08	4/29	4/22	4/17	4/11	4/06	4/01	3/25	3/16
20	4/27	4/14	4/06	3/29	3/22	3/15	3/07	2/27	2/14
16	3/28	3/15	3/05	2/25	2/17	2/10	2/01	1/23	1/09
•			Fal	l Freeze Da	tes (Month/D	ay)	•	•	•
To (E)		Pro	bability of ea	arlier date i	n fall (beginn	ing Aug 1) t	han indicate	d(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	8/23	8/31	9/06	9/11	9/16	9/21	9/26	10/02	10/10
32	9/09	9/18	9/23	9/28	10/03	10/08	10/13	10/19	10/27
28	9/22	9/30	10/06	10/11	10/15	10/19	10/24	10/30	11/07
24	10/01	10/08	10/14	10/19	10/23	10/27	11/01	11/07	11/14
20	10/22	10/28	11/02	11/06	11/10	11/13	11/17	11/22	11/28
16	10/29	11/06	11/12	11/17	11/22	11/27	12/02	12/08	12/16
•				Freeze F	ree Period	•	•	•	•
Tomp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days)	1	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	140	125	115	106	97	89	79	69	54
32	172	159	149	141	134	126	118	109	96
28	203	191	182	174	167	160	153	144	132
24	236	221	211	202	194	186	177	166	152
20	277	261	250	241	232	223	214	203	187
16	326	307	295	284	275	266	256	245	229

<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:

Elevation: 4,410 Feet

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				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree l	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	984	756	683	502	285	91	12	22	130	416	732	987	5600
60	817	601	520	358	177	40	2	8	67	274	575	819	4258
57	724	517	431	283	124	19	0	2	37	203	485	726	3551
55	662	461	374	237	94	11	0	1	24	161	426	664	3115
50	512	329	241	144	40	2	0	0	6	79	287	518	2158
32	101	26	11	4	0	0	0	0	0	0	15	114	271

Base						Coolin	g Degree I	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	123	203	348	494	754	977	1217	1169	903	609	270	121	7188
55	0	0	1	21	114	297	504	457	232	48	1	0	1675
57	0	0	0	12	83	244	442	395	183	30	0	0	1389
60	0	0	0	4	46	171	351	305	119	13	0	0	1009
65	0	0	0	0	11	72	204	164	41	1	0	0	493
70	0	0	0	0	2	23	89	64	7	0	0	0	185

										Gro	wing l	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (M	Ionthly)								Growi	ng Degre	e Units (	Accumu	lated Mo	onthly)			
	Jan         Feb         Mar         Apr         May         Jun         Jul         Aug         Sep         Oct         Nov         Degree of the properties of												Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	27 61 145 273 516 748 979 930 672 376 99												27	88	233	506	1022	1770	2749	3679	4351	4727	4826	4856
45												6	3	20	77	236	599	1197	2021	2796	3320	3563	3601	3607
50	0 0 15 74 231 449 669 620 378 129 8											0	0	0	15	89	320	769	1438	2058	2436	2565	2573	2573
55	0	0	0	23	119	305	514	465	238	51	0	0	0	0	0	23	142	447	961	1426	1664	1715	1715	1715
60	0	0	0	1	51	177	360	312	122	13	0	0	0	0	0	1	52	229	589	901	1023	1036	1036	1036
Base	Growing Degree Units for Corn (Monthly)											Growing Degree Units for Corn (Accumulated Monthly)												
50/86	<b>0/86</b> 30 71 135 219 353 484 604 582 463 310 108 36												30	101	236	455	808	1292	1896	2478	2941	3251	3359	3395

(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