U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data,
and Information Service

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: RUIDOSO, NM **COOP ID: 297649**

Climate Division: NM 6 **NWS Call Sign: RUI** **Elevation: 6,760 Feet** **Lat: 33˚20N** **Lon: 105˚41W**

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	49.5	19.8	34.7	71+	1950	21	38.4	2000	-26	1971	6	31.7	1997	940	0	.0	.0	15.1	1.1	28.4	.7
Feb	52.4	21.8	37.1	74	1986	25	41.9	1996	-26	1951	1	34.0	1974	781	0	.0	.0	17.6	.6	25.9	.7
Mar	58.0	25.4	41.7	75+	1960	8	46.0	1989	-8+	1948	11	38.0	1973	722	0	.0	.0	26.4	.1	26.9	.2
Apr	65.1	30.0	47.6	85+	1965	21	52.1	2000	2	1983	8	41.8	1983	524	0	.0	.0	28.7	.1	23.2	.0
May	73.1	36.5	54.8	92+	1951	27	61.4	1996	11+	1967	1	50.2	1975	322	6	.0	.1	30.9	.0	10.5	.0
Jun	81.5	43.7	62.6	98	1994	26	67.9	1980	22	1970	2	59.2	1983	108	37	.0	1.8	30.0	.0	1.4	.0
Jul	80.4	48.6	64.5	95+	1951	8	67.4	2000	31	1974	24	61.5	1991	53	38	.0	1.1	31.0	.0	@	.0
Aug	78.6	48.5	63.6	92	1980	2	66.5	1977	31+	1978	6	60.6	1990	74	28	.0	.1	31.0	.0	.1	.0
Sep	74.6	43.0	58.8	91	1948	5	62.1	1998	21	1971	20	56.0	1991	193	6	.0	.0	30.0	.0	2.0	.0
Oct	66.5	33.4	50.0	83	1965	9	53.8	1987	5	1970	28	45.8	1976	467	0	.0	.0	30.2	@	16.7	.0
Nov	56.6	24.5	40.6	77	1967	15	44.6	1973	-19	1976	29	33.9	2000	734	0	.0	.0	23.4	.2	25.9	.1
Dec	50.2	19.6	34.9	73	1980	28	41.2	1977	-24	1953	24	29.1	1997	933	0	.0	.0	16.6	1.1	28.8	.6
Ann	65.5	32.9	49.2	98	Jun 1994	26	67.9	Jun 1980	-26+	Jan 1971	6	29.1	Dec 1997	5851	115	.0	3.1	310.9	3.2	189.8	2.3

\+ 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

(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

Issue Date: February 2004

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Precipitation (inches)

Precipitation Totals

Month	Means/ Medians(1) Mean	Means/ Medians(1) Median	Extremes Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year
Jan	1.32	1.25	1.22	1982	13	3.52	1993	.00	2000
Feb	1.16	1.12	1.54	1959	9	2.53	1987	.00+	1999
Mar	1.03	.72	1.49	1955	17	4.46	1975	.00+	1984
Apr	.68	.51	1.30	1977	14	2.97	1977	.00+	1974
May	1.07	.72	1.78	1954	18	3.06	1997	.00+	1998
Jun	2.16	2.10	5.11	1965	17	6.54	2000	.13	1990
Jul	3.71	3.39	2.26	1958	6	6.48	1991	1.15	1987
Aug	4.40	4.44	2.34	1963	10	11.36	1984	1.60	1983
Sep	2.68	2.59	2.59	1964	10	5.54	1982	.25	2000
Oct	1.80	1.20	2.01	1985	7	6.98	1985	.00	1995
Nov	1.02	.79	1.35	1994	12	2.94	1994	.00+	1999
Dec	1.68	1.21	3.47	1978	7	8.88	1978	.00	1981
Ann	22.71	22.10	5.11	Jun 1965	17	11.36	Aug 1984	.00+	Jan 2000

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	4.3	3.0	.6	.1
Feb	3.7	2.7	.6	@
Mar	5.0	3.0	.4	@
Apr	3.2	1.8	.3	@
May	5.0	2.7	.5	.1
Jun	6.3	3.7	.9	.5
Jul	14.4	10.6	2.7	.8
Aug	15.7	9.9	2.5	.5
Sep	9.5	6.9	1.5	.4
Oct	6.1	3.7	1.1	.5
Nov	4.4	2.7	.6	.1
Dec	5.5	4.1	.9	.2
Ann	83.1	54.8	12.6	3.2

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
These values were determined from the incomplete gamma distribution

Month	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	.13	.28	.50	.70	.89	1.10	1.34	1.63	2.02	2.64	3.24
Feb	.00	.34	.59	.76	.92	1.08	1.25	1.45	1.70	2.10	2.47
Mar	.00	.13	.32	.49	.65	.84	1.04	1.29	1.62	2.17	2.69
Apr	.00	.04	.14	.24	.36	.49	.64	.84	1.12	1.58	2.04
May	.00	.04	.18	.34	.51	.72	.98	1.30	1.76	2.54	3.32
Jun	.25	.42	.72	1.02	1.34	1.70	2.12	2.63	3.34	4.50	5.63
Jul	1.69	2.02	2.47	2.84	3.18	3.52	3.89	4.31	4.84	5.64	6.36
Aug	2.10	2.48	3.00	3.42	3.81	4.19	4.61	5.08	5.68	6.57	7.38
Sep	.67	.92	1.31	1.66	2.00	2.36	2.76	3.24	3.87	4.86	5.79
Oct	.02	.09	.27	.50	.78	1.13	1.56	2.14	2.97	4.41	5.87
Nov	.00	.13	.32	.49	.65	.83	1.03	1.27	1.60	2.13	2.64
Dec	.03	.11	.31	.53	.80	1.12	1.51	2.02	2.74	3.98	5.22
Ann	16.63	17.82	19.34	20.48	21.50	22.48	23.49	24.60	25.94	27.89	29.56

\+ 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

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Snow (inches)

Snow Totals

Means/Medians (1)

Extremes (2)

Mean Number of Days (1)

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	10.2	9.0	2	#	23.0	1977	9	34.5	1977	16	1997	15	12	1972	3.5	3.0	1.3	.6	.1	-9.9	-9.9	-9.9	-9.9
Feb	6.7	2.0	1	0	8.6	1987	18	21.0+	1987	14	1987	20	6	1973	2.3	2.1	.9	.5	.0	2.2	1.5	1.1	.2
Mar	5.3	2.0	#	0	18.0	1975	29	37.2	1975	10	1994	27	1	1994	2.3	2.0	.9	.2	.1	1.0	.2	.1	.0
Apr	3.0	.0	#	0	15.0	1983	4	24.3	1983	23	1983	6	4	1983	.9	.8	.4	.2	@	.6	.6	.4	.3
May	.0	.0	#	0	1.0	1978	2	1.0	1978	#	1986	17	#	1986	@	@	.0	.0	.0	.0	.0	.0	.0
Jun	#	.0	0	0	#	1972	5	#	1972	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	2.3	.0	#	0	14.0	1972	31	14.0	1972	5+	1999	17	#+	1999	.5	.5	.4	.2	@	.2	.2	.1	.0
Nov	3.7	1.8	#	0	15.0	2000	7	19.0	1976	9	2000	8	1+	2000	1.0	1.0	.6	.2	.1	.5	.1	.0	.0
Dec	6.5	4.0	1	#	13.0	1978	7	22.0	1978	24	1997	27	7	1997	2.3	2.0	1.2	.6	.1	-9.9	-9.9	-9.9	-9.9
Ann	37.7	18.8	N/A	N/A	23.0	Jan 1977	9	37.2	Mar 1975	24	Dec 1997	27	12	Jan 1972	12.8	11.4	5.7	2.5	.4	-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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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	7/06	6/28	6/22	6/17	6/12	6/07	6/02	5/27	5/19
32	6/23	6/14	6/08	6/02	5/28	5/22	5/17	5/10	5/01
28	6/06	5/30	5/25	5/20	5/16	5/12	5/07	5/02	4/25
24	5/27	5/19	5/13	5/08	5/03	4/28	4/23	4/17	4/08
20	5/16	5/06	4/29	4/24	4/18	4/13	4/07	3/31	3/22
16	5/04	4/25	4/18	4/12	4/07	4/02	3/27	3/20	3/11

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	8/28	9/03	9/08	9/12	9/16	9/20	9/24	9/29	10/05
32	9/09	9/14	9/18	9/22	9/25	9/29	10/02	10/06	10/12
28	9/25	9/29	10/02	10/04	10/06	10/09	10/11	10/14	10/18
24	10/02	10/08	10/12	10/15	10/19	10/22	10/25	10/29	11/04
20	10/12	10/18	10/22	10/25	10/29	11/01	11/05	11/09	11/15
16	10/19	10/26	10/31	11/04	11/08	11/12	11/16	11/21	11/27

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	131	119	110	103	96	89	81	73	61
32	153	142	133	126	120	113	106	98	87
28	167	159	153	147	143	138	132	126	118
24	201	190	181	174	168	161	154	146	135
20	229	217	208	200	193	186	178	169	157
16	253	239	230	222	214	207	198	189	176

***** 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)

Heating Degree Days (1)

Base Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	940	781	722	524	322	108	53	74	193	467	734	933	5851
60	785	641	567	375	191	36	5	11	79	313	584	778	4365
57	692	557	474	290	128	15	0	2	36	226	494	685	3599
55	630	501	412	235	93	7	0	0	18	173	434	623	3126
50	475	361	259	121	34	1	0	0	2	72	294	468	2087
32	30	17	1	0	0	0	0	0	0	0	14	44	106

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	113	160	302	466	707	919	1008	977	803	556	271	134	6416
55	0	0	0	12	87	236	295	264	131	17	1	0	1043
57	0	0	0	6	60	184	233	203	89	7	0	0	782
60	0	0	0	2	30	115	145	120	42	1	0	0	455
65	0	0	0	0	6	37	38	28	6	0	0	0	115
70	0	0	0	0	0	6	3	1	0	0	0	0	10

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	20	36	97	214	454	660	775	722	547	291	80	24	20	56	153	367	821	1481	2256	2978	3525	3816	3896	3920
45	0	5	32	98	301	510	620	567	397	154	20	0	0	5	37	135	436	946	1566	2133	2530	2684	2704	2704
50	0	0	2	28	166	360	465	412	248	59	3	0	0	0	2	30	196	556	1021	1433	1681	1740	1743	1743
55	0	0	0	6	63	212	310	257	114	10	0	0	0	0	0	6	69	281	591	848	962	972	972	972
60	0	0	0	0	16	85	159	112	26	0	0	0	0	0	0	0	16	101	260	372	398	398	398	398
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	46	70	139	231	370	473	502	465	379	260	117	52	46	116	255	486	856	1329	1831	2296	2675	2935	3052	3104

(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

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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

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

c. Snow Tables
   1. Snow Climatology
   2. Cooperative Summary of the Day

d. Freeze Data Table
   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