

Climatology of the United States

No. 20

1971-2000

Station: WINSTON, NM

COOP ID: 299806

Climate Division: NM 4

NWS Call Sign:

Elevation: 6,196 Feet Lat: 33° 21N

Lon: 107° 39W

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	52.2	17.8	35.0	76	1969	7	39.3	2000	-23+	1962	11	29.5	1989	930	0	.0	.0	21.4	.6	30.0	.3
Feb	55.9	22.0	39.0	80	1968	20	44.9	1984	-8	1985	1	33.9	1974	729	0	.0	.0	22.9	.3	24.4	.1
Mar	61.1	25.5	43.3	82+	1971	26	48.5	1989	-5	1965	3	36.3	1977	672	0	.0	.0	29.4	@	24.8	.0
Apr	68.5	30.9	49.7	89	1954	10	54.3	2000	11	1957	3	42.8	1983	461	1	.0	.0	29.3	.0	15.7	.0
May	76.9	39.1	58.0	96	1951	27	66.6	1996	17	1970	2	52.6	1979	244	27	.0	1.0	31.0	.0	4.0	.0
Jun	86.3	48.4	67.4	102	1994	25	72.1	1994	31	1968	10	63.9	1979	47	117	.3	10.4	30.0	.0	.1	.0
Jul	86.0	54.1	70.1	103	1963	24	74.0	1980	41	1973	23	67.4	1976	7	162	.1	10.1	31.0	.0	.0	.0
Aug	82.7	52.0	67.4	97	1958	16	71.1	1994	40+	1966	31	64.5	1990	23	97	.0	3.1	31.0	.0	.0	.0
Sep	78.5	45.0	61.8	93+	1956	16	66.3	1983	25	1970	27	57.4	1988	131	33	.0	.8	30.0	.0	.6	.0
Oct	70.6	34.0	52.3	88+	1959	23	55.1	1972	11	1956	29	47.3	1976	393	0	.0	.0	30.5	.0	11.8	.0
Nov	59.5	23.2	41.4	80+	1950	8	46.4	1995	-12	1976	28	36.3+	2000	708	0	.0	.0	26.3	.2	27.0	.1
Dec	52.1	17.2	34.7	76	1958	4	43.8	1980	-10+	1953	23	30.2	1982	941	0	.0	.0	21.1	.5	29.8	.3
Ann	69.2	34.1	51.7	103	Jul 1963	24	74.0	Jul 1980	-23+	Jan 1962	11	29.5	Jan 1989	5286	437	.4	25.4	333.9	1.6	168.2	.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/normal/usnormals.html

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1949-2001

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

097-A

Climatology 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: WINSTON, NM

COOP ID: 299806

Climate Division: NM 4

NWS Call Sign:

Elevation: 6,196 Feet Lat: 33°21N

Lon: 107°39W

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	.50	.39	1.65	1980	21	2.21	1979	.00+	2000	2.7	1.7	.1	@	.00	.04	.13	.20	.29	.38	.49	.62	.81	1.11	1.41
Feb	.46	.29	1.58	1997	19	1.86	1997	.00+	2000	1.6	1.3	.3	@	.00	.00	.00	.00	.08	.24	.41	.60	.85	1.26	1.65
Mar	.25	.14	.70	1977	28	1.30	1977	.00+	1996	1.4	.7	.1	.0	.00	.00	.00	.00	.10	.17	.24	.34	.46	.66	.84
Apr	.19	.03	1.54	1954	13	1.44	1985	.00+	2000	1.5	.7	.1	.0	.00	.00	.00	.00	.00	.00	.12	.23	.37	.60	.82
May	.75	.52	1.40	2001	13	4.57	1992	.00+	2000	2.7	1.7	.4	@	.00	.00	.03	.15	.29	.45	.66	.92	1.29	1.92	2.56
Jun	.86	.49	1.70	1981	29	3.03	1981	.00+	1998	3.0	2.2	.5	.1	.00	.00	.11	.26	.42	.60	.81	1.08	1.45	2.06	2.67
Jul	2.82	2.62	1.98	1955	22	6.06	1986	.55	1994	8.6	7.1	1.9	.2	.99	1.25	1.64	1.96	2.28	2.59	2.94	3.35	3.87	4.67	5.41
Aug	3.37	3.04	2.15	1972	27	6.96	1993	1.24	1975	8.6	7.2	2.2	.9	1.35	1.66	2.10	2.46	2.81	3.16	3.53	3.97	4.52	5.37	6.14
Sep	2.14	2.14	2.30	1975	6	8.63	1975	.00	1987	5.2	4.4	1.3	.4	.14	.35	.69	1.01	1.34	1.70	2.12	2.64	3.34	4.49	5.60
Oct	1.24	.93	1.65	1972	13	5.21	1972	.00+	1995	3.1	2.7	.8	.2	.00	.00	.00	.24	.48	.77	1.11	1.54	2.14	3.17	4.18
Nov	.58	.34	2.10	1994	12	2.60	1994	.00+	1999	1.8	1.5	.4	.1	.00	.00	.00	.00	.18	.35	.53	.75	1.05	1.54	2.01
Dec	.68	.39	1.40	1992	4	3.78	1991	.00+	1996	2.3	1.9	.5	@	.00	.00	.00	.17	.31	.47	.64	.86	1.17	1.67	2.16
Ann	13.84	13.84	2.30	Sep 1975	6	8.63	Sep 1975	.00+	May 2000	42.5	33.1	8.6	1.9	8.17	9.19	10.54	11.60	12.55	13.49	14.47	15.58	16.94	18.96	20.73

+ 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: 1949-2001

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

Complete documentation available from:

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

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Station: WINSTON, NM

COOP ID: 299806

Climate Division: NM 4

NWS Call Sign:

Elevation: 6,196 Feet

Lat: 33°21N

Lon: 107°39W

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	3.9	3.3	#	0	8.0	1975	1	18.2	1985	7+	1997	7	1	1997	1.4	1.2	.6	.2	.0	.6	.2	.1	.0
Feb	2.4	.0	#	0	10.0	1986	8	18.0	1986	6	1988	19	1	1979	.7	.6	.4	.2	@	.2	.1	.1	.0
Mar	1.7	.0	#	0	16.0	2000	22	16.0	2000	16	2000	22	1	2000	.6	.4	.2	.1	@	.3	.2	.1	.1
Apr	.1	.0	0	0	2.0	1984	26	2.0	1984	0	0	0	0	0	.1	@	.0	.0	.0	.0	.0	.0	.0
May	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.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	.7	.0	#	0	8.0	1976	27	9.6	1976	2+	1996	27	#+	1997	.1	.1	.1	.1	.0	.1	.0	.0	.0
Nov	.9	.0	#	0	8.0	1990	7	8.0	1990	8	1990	7	#+	2000	.4	.3	.2	.1	.0	.2	.1	.1	.0
Dec	4.4	2.0	#	0	9.0	1987	25	20.0	1987	12	1987	26	2	1987	1.5	1.2	.6	.2	.0	1.1	.4	.1	.0
Ann	14.1	5.3	N/A	N/A	16.0	Mar 2000	22	20.0	Dec 1987	16	Mar 2000	22	2	Dec 1987	4.8	3.8	2.1	.9	@	2.5	1.0	.5	.1

+ 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

Complete documentation available from:

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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	6/10	6/05	6/02	5/29	5/27	5/24	5/21	5/17	5/12
32	5/30	5/24	5/20	5/17	5/14	5/11	5/07	5/03	4/28
28	5/15	5/10	5/06	5/03	4/30	4/27	4/24	4/20	4/15
24	5/08	5/02	4/28	4/24	4/20	4/16	4/12	4/08	4/02
20	4/21	4/15	4/11	4/07	4/04	3/31	3/28	3/23	3/17
16	4/14	4/05	3/30	3/24	3/19	3/14	3/09	3/02	2/21
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	9/17	9/21	9/23	9/26	9/28	9/30	10/02	10/05	10/09
32	9/25	9/29	10/02	10/04	10/06	10/09	10/11	10/14	10/18
28	10/04	10/08	10/11	10/14	10/17	10/19	10/22	10/25	10/29
24	10/11	10/16	10/20	10/23	10/26	10/29	11/01	11/05	11/10
20	10/18	10/24	10/28	11/01	11/04	11/08	11/11	11/16	11/21
16	10/30	11/05	11/09	11/13	11/17	11/20	11/24	11/28	12/04
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	141	135	131	127	124	120	116	112	106
32	164	157	153	148	145	141	137	132	126
28	189	182	177	173	169	165	161	156	149
24	213	204	198	193	188	183	178	172	164
20	238	230	224	219	214	209	204	198	190
16	269	259	253	247	242	236	230	224	214

* 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	930	729	672	461	244	47	7	23	131	393	708	941	5286
60	775	589	517	319	137	12	0	2	49	243	558	786	3987
57	682	505	426	241	89	4	0	0	21	163	468	693	3292
55	620	449	369	195	64	2	0	0	10	117	408	631	2865
50	465	316	233	102	22	0	0	0	1	37	267	476	1919
32	41	20	8	0	0	0	0	0	0	0	9	57	135

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	134	216	359	530	806	1061	1179	1097	892	630	291	138	7333
55	0	0	7	35	157	373	466	384	212	34	0	0	1668
57	0	0	2	22	120	315	404	322	163	18	0	0	1366
60	0	0	0	10	75	232	311	231	101	5	0	0	965
65	0	0	0	1	27	117	162	97	33	0	0	0	437
70	0	0	0	0	6	42	54	19	6	0	0	0	127

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	31	87	175	338	586	844	954	872	679	409	130	34	31	118	293	631	1217	2061	3015	3887	4566	4975	5105	5139
45	1	28	73	203	431	694	799	717	529	260	45	3	1	29	102	305	736	1430	2229	2946	3475	3735	3780	3783
50	0	1	21	93	281	544	644	562	380	132	6	0	0	1	22	115	396	940	1584	2146	2526	2658	2664	2664
55	0	0	0	29	148	395	489	407	233	41	0	0	0	0	0	29	177	572	1061	1468	1701	1742	1742	1742
60	0	0	0	1	53	246	334	252	109	4	0	0	0	0	0	1	54	300	634	886	995	999	999	999
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	82	125	203	304	435	547	608	560	451	337	171	87	82	207	410	714	1149	1696	2304	2864	3315	3652	3823	3910

(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