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: FORT BAYARD, NM **COOP ID: 293265**

Climate Division: NM 4 **NWS Call Sign:** **Elevation: 6,142 Feet** **Lat: 32˚48N** **Lon: 108˚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	52.6	26.0	39.3	76	1923	12	45.0	1986	-12	1913	7	34.8	1973	797	0	.0	.0	19.9	.3	26.3	.1
Feb	56.3	28.1	42.2	80	1902	17	47.8	1996	-6	1933	8	38.1	1973	634	0	.0	.0	22.7	.3	20.7	.0
Mar	61.8	31.9	46.9	85	1907	19	52.7	1972	7	1965	3	41.3	1973	563	0	.0	.0	28.9	.0	16.8	.0
Apr	69.8	36.9	53.4	95	1992	28	60.0	1989	13	1949	1	47.0	1983	356	6	.0	@	29.4	@	8.3	.0
May	78.1	45.1	61.6	99+	1951	26	68.1	2000	23	1967	1	57.9	1971	151	45	.0	1.0	31.0	.0	.8	.0
Jun	87.8	54.5	71.2	106	1994	26	76.6	1994	30	1962	3	67.6	1991	16	200	.8	12.4	30.0	.0	.0	.0
Jul	87.3	58.7	73.0	104+	1951	8	76.9	1978	42	1976	11	69.9	1991	1	249	.3	11.3	31.0	.0	.0	.0
Aug	84.5	57.4	71.0	102	1953	14	74.0+	1995	38+	1980	29	68.0	1990	5	190	.0	3.8	31.0	.0	.0	.0
Sep	80.5	52.6	66.6	100	1899	3	70.9	2000	29	1945	30	62.9	1972	51	97	.0	.9	30.0	.0	.0	.0
Oct	71.2	42.6	56.9	90	1954	1	61.6	1988	19	1906	23	52.1	1976	261	10	.0	.0	30.7	.0	2.8	.0
Nov	59.9	31.8	45.9	81	1953	12	52.2	1999	-1	1906	20	39.7	1972	576	0	.0	.0	26.3	.0	15.9	.0
Dec	52.5	26.3	39.4	73+	1939	10	43.5	1981	-3	1953	24	35.6	1997	793	0	.0	.0	20.5	.3	25.7	@
Ann	70.2	41.0	55.6	106	Jun 1994	26	76.9	Jul 1978	-12	Jan 1913	7	34.8	Jan 1973	4204	797	1.1	29.4	331.4	.9	117.3	.1

\+ 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: 1897-2001

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

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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	.94	.82	1.87	1905	9	4.73	1993	.00+	1986
Feb	.76	.67	1.43	1948	25	2.02	1993	.00+	1999
Mar	.53	.44	2.00	1912	10	1.60	1991	.00	1971
Apr	.20	.12	1.17	1919	26	1.54	1988	.00+	1991
May	.59	.29	1.25	1931	31	4.02	1992	.00+	2000
Jun	.81	.56	2.50	1966	28	4.15	2000	.00+	1983
Jul	3.60	3.46	2.06	1981	1	8.05	1988	.87	1980
Aug	3.14	2.95	3.55	1925	31	5.63	1991	1.36	1975
Sep	1.91	1.69	2.50	1966	14	6.48	1975	.12	2000
Oct	1.63	1.01	2.89	1904	8	6.00	1972	.00+	1999
Nov	.97	.66	1.75	1935	25	3.66	1994	.00+	1999
Dec	1.17	.72	1.60	1994	5	3.99	1984	.00+	1996
Ann	16.25	16.52	3.55	Aug 1925	31	8.05	Jul 1988	.00+	May 2000

Mean Number of Days (3)

Daily Precipitation

Month	>= 0.01	>= 0.10	>= 0.50	>= 1.00
Jan	5.1	2.7	.4	.1
Feb	4.5	2.2	.5	@
Mar	4.5	1.8	.1	.0
Apr	2.1	.7	@	.0
May	2.9	1.5	.4	@
Jun	4.8	2.2	.3	.1
Jul	13.8	8.2	2.5	.5
Aug	13.6	7.5	1.9	.4
Sep	7.5	4.4	1.3	.2
Oct	6.0	3.5	.8	.3
Nov	3.9	2.4	.5	.2
Dec	5.3	2.9	.7	.1
Ann	74.0	40.0	9.4	1.9

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	.00	.04	.16	.29	.45	.63	.85	1.14	1.54	2.23	2.92
Feb	.00	.00	.15	.27	.41	.55	.73	.95	1.24	1.73	2.22
Mar	.02	.06	.13	.21	.29	.39	.51	.65	.86	1.20	1.53
Apr	.00	.00	.01	.03	.06	.10	.16	.23	.35	.55	.76
May	.00	.00	.00	.06	.18	.32	.49	.72	1.03	1.59	2.14
Jun	.00	.03	.14	.25	.39	.55	.74	.98	1.33	1.92	2.51
Jul	1.22	1.56	2.06	2.48	2.88	3.30	3.76	4.29	4.97	6.03	7.00
Aug	1.44	1.72	2.10	2.41	2.69	2.98	3.29	3.64	4.08	4.75	5.35
Sep	.31	.47	.75	1.01	1.28	1.58	1.92	2.33	2.88	3.77	4.62
Oct	.00	.00	.21	.45	.73	1.06	1.47	1.99	2.72	3.98	5.24
Nov	.00	.00	.15	.30	.47	.66	.90	1.20	1.61	2.32	3.03
Dec	.00	.00	.08	.24	.44	.69	1.00	1.40	1.99	2.99	4.01
Ann	10.56	11.62	13.00	14.07	15.02	15.95	16.92	17.99	19.31	21.24	22.93

+ 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: 1897-2001
(3) Derived from 1971-2000 serially complete daily data

Complete documentation available from:
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Snow (inches)

Snow Totals

Means/Medians (1)

Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median
Jan	1.3	.0	#	0
Feb	1.4	.0	#	0
Mar	.7	.0	#	0
Apr	.1	.0	#	0
May	.0	.0	0	0
Jun	.0	.0	0	0
Jul	.0	.0	0	0
Aug	.0	.0	0	0
Sep	.0	.0	0	0
Oct	#	.0	#	0
Nov	.7	.0	#	0
Dec	1.6	.0	#	0
Ann	5.8	.0	N/A	N/A

Extremes (2)

Month	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year
Jan	6.0	1979	25	6.0	1979	6	1979	25	5	1980
Feb	8.0	1979	5	10.0	1979	6	1985	4	#+	1987
Mar	7.0	1975	29	12.5	1975	7	1975	29	#+	1997
Apr	1.0	1973	3	1.5	1975	1	1973	3	#	1973
May	.0	0	0	.0	0	0	0	0	0	0
Jun	.0	0	0	.0	0	0	0	0	0	0
Jul	.0	0	0	.0	0	0	0	0	0	0
Aug	.0	0	0	.0	0	0	0	0	0	0
Sep	.0	0	0	.0	0	0	0	0	0	0
Oct	#	1972	31	#+	1972	#	1971	26	#	1971
Nov	4.2	1973	27	4.7	1973	4	1973	27	#+	1993
Dec	8.0	1986	10	8.0	1986	6	1987	27	1	1987
Ann	8.0+	Dec 1986	10	12.5	Mar 1975	7	Mar 1975	29	5	Jan 1980

Mean Number of Days (1)

Snow Fall >= Thresholds

Month	0.1	1.0	3.0	5.0	10.0
Jan	.7	.6	.4	.1	.0
Feb	.5	.3	.2	.1	.0
Mar	.2	.2	.1	.1	.0
Apr	.2	.1	.0	.0	.0
May	.0	.0	.0	.0	.0
Jun	.0	.0	.0	.0	.0
Jul	.0	.0	.0	.0	.0
Aug	.0	.0	.0	.0	.0
Sep	.0	.0	.0	.0	.0
Oct	.0	.0	.0	.0	.0
Nov	.4	.2	.1	.0	.0
Dec	.6	.4	.1	.1	.0
Ann	2.6	1.8	.9	.4	.0

Snow Depth >= Thresholds

Month	1	3	5	10
Jan	.2	.1	.1	.0
Feb	.1	@	@	.0
Mar	@	@	@	.0
Apr	@	.0	.0	.0
May	.0	.0	.0	.0
Jun	.0	.0	.0	.0
Jul	.0	.0	.0	.0
Aug	.0	.0	.0	.0
Sep	.0	.0	.0	.0
Oct	.0	.0	.0	.0
Nov	.2	.1	.0	.0
Dec	.2	.2	.2	.0
Ann	.7	.4	.3	.0

+ 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	5/31	5/24	5/20	5/16	5/13	5/09	5/05	5/01	4/25
32	5/12	5/06	5/02	4/29	4/26	4/23	4/20	4/16	4/10
28	5/02	4/26	4/22	4/19	4/15	4/12	4/09	4/05	3/30
24	4/24	4/14	4/08	4/02	3/27	3/22	3/16	3/09	2/28
20	4/12	4/01	3/24	3/17	3/11	3/05	2/26	2/18	2/07
16	3/18	3/08	3/01	2/23	2/17	2/11	2/05	1/28	1/18

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	10/02	10/07	10/11	10/14	10/17	10/20	10/23	10/27	11/01
32	10/11	10/16	10/20	10/23	10/26	10/29	11/01	11/05	11/10
28	10/20	10/25	10/28	10/31	11/03	11/06	11/09	11/12	11/17
24	10/27	11/01	11/04	11/08	11/11	11/14	11/17	11/21	11/26
20	11/08	11/13	11/18	11/21	11/24	11/28	12/01	12/05	12/11
16	11/19	11/25	11/30	12/04	12/07	12/11	12/15	12/19	12/25

Freeze Free Period

Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	178	171	166	161	157	152	148	142	135
32	202	195	190	186	182	178	174	169	162
28	222	215	210	205	201	197	193	187	180
24	263	251	242	235	228	221	213	204	192
20	290	279	271	264	258	251	244	236	225
16	326	315	306	299	293	286	279	270	259

***** 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	797	634	563	356	151	16	1	5	51	261	576	793	4204
60	642	494	411	224	67	2	0	0	12	140	427	638	3057
57	549	410	324	159	35	0	0	0	3	86	341	545	2452
55	487	354	269	123	21	0	0	0	1	59	285	483	2082
50	337	224	152	53	4	0	0	0	0	17	164	329	1280
32	14	4	0	0	0	0	0	0	0	0	1	6	25

Cooling Degree Days (1)

Base Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	240	294	460	640	917	1174	1271	1208	1036	772	415	236	8663
55	0	1	16	73	225	484	558	495	347	118	10	0	2327
57	0	0	9	49	178	424	496	433	289	83	5	0	1966
60	0	0	3	24	116	336	403	340	208	45	1	0	1476
65	0	0	0	6	45	200	249	190	97	10	0	0	797
70	0	0	0	0	11	94	111	71	30	1	0	0	318

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	71	121	236	414	673	945	1023	971	798	533	207	68	71	192	428	842	1515	2460	3483	4454	5252	5785	5992	6060
45	16	48	120	272	518	795	868	816	648	381	107	17	16	64	184	456	974	1769	2637	3453	4101	4482	4589	4606
50	1	8	44	152	364	645	713	661	498	239	36	0	1	9	53	205	569	1214	1927	2588	3086	3325	3361	3361
55	0	0	7	61	220	495	558	506	348	120	7	0	0	0	7	68	288	783	1341	1847	2195	2315	2322	2322
60	0	0	0	13	103	348	403	351	207	39	0	0	0	0	0	13	116	464	867	1218	1425	1464	1464	1464
Base	**Growing Degree Units for Corn (Monthly)**												**Growing Degree Units for Corn (Accumulated Monthly)**											
50/86	78	117	196	305	453	603	670	644	512	344	163	80	78	195	391	696	1149	1752	2422	3066	3578	3922	4085	4165

(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:
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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