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: 465672

Lon: 80°05W

Station: MARLINTON, WV

Climate Division: WV 4 NWS Call Sign:

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 34.7 13.0 23.9 76 1937 8 33.5 1974 -24 1994 20 11.7 1977 1275 0 .0 .0 4.0 8.8 29.5 3.2 Jan 39.0 15.8 27.4 72 1996 28 34.1 1976 -22 1934 28 17.4 1978 1053 0 .0 .0 6.3 5.8 26.9 1.8 Feb Mar 48.6 22.5 35.6 86 1939 26 40.8 1973 0 1934 30.5 1984 914 0 .0 .0 17.0 1.6 25.0 .2 92 13 1997 Apr 58.8 30.6 44.7 1942 30 48.6 1985 1997 10 40.0 609 0 .0 .0 25.0 .1 15.1 .0 May 66.9 39.4 53.2 97 1941 22 60.4 1991 24 +1926 5 47.7 1997 375 8 .0 .1 30.7 .0 1.9 .0 47.5 1940 7 30 55.4 .2 Jun 73.7 60.6 93 64.0 1994 1930 1 1972 155 23 .0 .1 30.0 .0 0. Jul 77.5 52.4 65.0 97 1988 17 1993 36+ 1929 21 61.7 1984 66 65 .0 .7 31.0 0. 68.6 .0 .0 96 76.6 51.4 64.0 1988 18 67.8 1995 34 +1930 12 60.3 1976 78 45 .0 .6 31.0 .0 .0 .0 Aug 24 5 Sep 71.2 44.5 57.9 92 1941 9 61.5 1980 1942 29 54.6 1974 219 .0 .2 29.9 .0 1.1 .0 53.0 8 22 39.9 572 Oct 61.5 31.6 46.6 90 1941 6 1984 1930 1988 0 .0 .0 28.9 .0 13.9 .0 49.8 23.0 76+ 1938 2 43.3 1985 -4+ 1929 30 29.1 1976 859 0 .0 .0 16.5 1.8 23.0 Nov 36.4 .1 Dec 38.9 17.0 28.0 70 1941 3 35.3 1984 -17+1989 23 15.2 1989 1150 0 .0 .0 7.2 5.8 28.3 1.6 Jul Jul Jan Jan 32.4 45.3 97+ 1988 17 68.6 1993 -24 1994 20 11.7 1977 7325 146 .0 1.7 257.5 23.9 164.9 6.9 58.1 Ann

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

Issue Date: February 2004 028-A

(1) From the 1971-2000 Monthly Normals

Elevation: 2,150 Feet Lat: 38°13N

- (2) Derived from station's available digital record: 1926-2001
- (3) Derived from 1971-2000 serially complete daily data

⁺ Also occurred on an earlier date(s)

[@] Denotes mean number of days greater than 0 but less than .05

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COOP ID: 465672

Station: MARLINTON, WV

Climate Division: WV 4 NWS Call Sign: Elevation: 2,150 Feet Lat: 38°13N Lon: 80°05W

										Pı	recipi	tation	(incl	nes)										
	Mea	Precipitation Totals Means/ Medianary Extremes										ays (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)				Extremes	,			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	3.90	3.89	2.02	2000	4	7.02	1978	.84	1981	14.5	7.9	2.7	.9	1.39	1.75	2.29	2.73	3.16	3.59	4.07	4.62	5.33	6.43	7.43
Feb	3.11	3.25	2.12	1932	4	5.40	1994	.59	1978	11.4	6.2	1.8	.5	1.15	1.44	1.86	2.21	2.54	2.88	3.25	3.68	4.22	5.06	5.83
Mar	4.06	3.81	1.80	1932	28	7.32	1993	1.69	1988	14.5	9.2	2.7	.8	1.70	2.07	2.59	3.01	3.41	3.82	4.25	4.76	5.39	6.36	7.24
Apr	3.09	2.63	3.51	1989	26	6.09	1987	1.20	1976	13.0	7.3	2.1	.6	1.24	1.52	1.92	2.25	2.57	2.89	3.23	3.63	4.13	4.91	5.61
May	4.59	4.88	2.70	2001	20	7.01	1996	1.68	1977	14.2	8.5	2.8	.9	2.25	2.64	3.17	3.60	4.00	4.40	4.82	5.30	5.90	6.80	7.61
Jun	3.35	3.17	2.70	1940	27	6.39	2000	.73	1988	14.0	8.3	2.2	.6	1.10	1.42	1.89	2.28	2.66	3.06	3.49	3.99	4.64	5.65	6.58
Jul	4.05	3.79	3.79	1939	29	8.83	1991	2.12	1999	14.0	8.6	2.6	1.0	1.96	2.30	2.78	3.16	3.51	3.87	4.24	4.67	5.21	6.02	6.75
Aug	4.43	4.03	3.20	1942	8	7.96	1989	1.85	1981	11.3	6.7	2.5	1.1	2.12	2.50	3.02	3.45	3.84	4.23	4.65	5.13	5.73	6.63	7.44
Sep	3.16	2.86	2.40	1932	23	8.21	1987	.39	1985	11.4	5.8	2.1	.8	.65	.94	1.40	1.83	2.25	2.71	3.22	3.84	4.65	5.95	7.19
Oct	2.90	2.77	2.50	1929	2	7.97	1976	.19	2000	10.8	6.0	2.1	.7	.62	.88	1.31	1.69	2.08	2.50	2.96	3.52	4.26	5.44	6.56
Nov	3.39	3.28	2.02	1928	30	9.06	1985	1.05	1976	11.4	6.8	2.2	.7	1.37	1.68	2.12	2.49	2.83	3.18	3.55	3.99	4.54	5.38	6.14
Dec	3.71	3.30	2.48	1948	15	7.71	1978	1.62+	1994	13.5	7.3	2.5	.8	1.41	1.75	2.25	2.66	3.05	3.45	3.88	4.38	5.02	6.00	6.90
Ann	43.74	42.97	3.79	Jul 1939	29	9.06	Nov 1985	.19	Oct 2000	154.0	88.6	28.3	9.4	34.52	36.37	38.71	40.46	41.99	43.46	44.96	46.61	48.58	51.41	53.83

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

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

[#] 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: 1926-2001

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

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COOP ID: 465672

Station: MARLINTON, WV

Climate Division: WV 4 NWS Call Sign: Elevation: 2,150 Feet Lat: 38°13N Lon: 80°05W

										Snov	w (incl	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	4.5	-99.9	2	2	12.3	1996	7	22.4	1987	24	1996	12	8	1996	4.8	3.7	1.5	.9	.2	-9.9	-9.9	-9.9	-9.9		
Feb	7.9	6.2	1	1	10.0	1987	23	18.6	1993	13	1987	23	5	1987	3.6	2.6	.9	.4	.1	9.3	3.8	1.7	.0		
Mar	7.4	4.5	#	#	10.4	1993	14	25.5	1999	15	1993	14	3	1993	2.9	2.5	.7	.4	.1	3.8	1.6	.6	.2		
Apr	.6	.0	#	#	2.0	1990	7	2.0+	1996	7	1987	5	1	1987	.6	.4	.0	.0	.0	.4	.0	.0	.0		
May	.0	.0	#	0	.0	0	0	.0	0	#	1989	8	#	1989	.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	.1	.0	#	0	1.4	1993	31	1.4	1993	1	1993	31	#+	1993	.1	.1	.0	.0	.0	.1	.0	.0	.0		
Nov	1.0	.0	#	#	3.7	1995	14	4.2	1989	4	1995	14	1	1995	1.1	.5	.1	.0	.0	.8	.2	.0	.0		
Dec	7.6	5.3	1	1	14.0	1997	30	24.5	1997	16	1997	30	6	1989	3.8	3.1	.7	.3	.1	4.7	1.8	.7	.2		
Ann	29.1	-9.9	N/A	N/A	14.0	Dec 1997	30	25.5	Mar 1999	24	Jan 1996	12	8	Jan 1996	16.9	12.9	3.9	2.0	.5	-9.9	-9.9	-9.9	-9.9		

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

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

[@] 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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NWS Call Sign:

Elevation: 2,150 Feet

Lat: 38°13N Lon: 80°05W

				Freez	e 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	6/18	6/09	6/03	5/28	5/23	5/18	5/13	5/06	4/28						
32	5/31	5/24	5/19	5/14	5/10	5/06	5/02	4/26	4/19						
28	5/17	5/11	5/06	5/02	4/28	4/24	4/20	4/16	4/09						
24	5/02	4/27	4/24	4/21	4/18	4/15	4/12	4/08	4/03						
20	4/24	4/18	4/14	4/10	4/07	4/04	3/31	3/27	3/21						
16	4/13	4/07	4/03	3/30	3/26	3/23	3/19	3/14	3/08						
			Fal	ll Freeze Da	tes (Month/L	Day)									
Town (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	9/09	9/15	9/19	9/22	9/25	9/28	10/02	10/06	10/11						
32	9/21	9/25	9/28	10/01	10/03	10/06	10/08	10/11	10/15						
28	9/26	10/01	10/05	10/08	10/11	10/14	10/17	10/20	10/25						
24	10/06	10/11	10/15	10/18	10/21	10/24	10/27	10/30	11/04						
20	10/18	10/23	10/27	10/31	11/03	11/06	11/10	11/14	11/19						
16	10/21	10/29	11/04	11/09	11/14	11/18	11/23	11/29	12/07						
1		•	•	Freeze F	ree Period	1		•	II.						
To (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days)								
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	156	145	137	130	124	118	111	103	92						
32	172	163	156	151	145	140	134	127	118						
28	190	182	175	170	165	160	154	148	139						
24	208	200	194	190	185	181	176	170	163						
20	234	225	219	214	209	205	199	193	185						
16	266	254	246	238	232	225	217	209	197						

^{*} 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.

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	Degree Days to Selected Base Temperatures (°F)														
Base						Heatin	g Degree	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1275	1053	914	609	375	155	66	78	219	572	859	1150	7325		
60	1120	913	759	460	241	65	13	15	102	420	709	995	5812		
57	1027	829	666	371	174	32	4	4	54	334	619	902	5016		
55	965	773	604	313	136	18	0	0	34	280	559	840	4522		
50	810	633	451	181	62	3	0	0	7	165	413	685	3410		
32	310	188	63	1	0	0	0	0	0	4	52	216	834		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	57	59	172	382	656	858	1022	991	776	455	183	90	5701
55	0	0	0	4	79	187	309	278	119	18	0	0	994
57	0	0	0	2	55	141	251	220	80	10	0	0	759
60	0	0	0	0	29	84	167	138	38	4	0	0	460
65	0	0	0	0	8	23	65	45	5	0	0	0	146
70	0	0	0	0	0	3	12	7	0	0	0	0	22

										Gro	wing l	Degre	e Uni	ts (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	9	17	94	251	520	717	902	856	642	317	92	26	9	26	120	371	891	1608	2510	3366	4008	4325	4417	4443
45	0	3	41	148	370	567	747	701	494	188	46	4	0	3	44	192	562	1129	1876	2577	3071	3259	3305	3309
50	0	0	15	76	225	418	592	546	351	95	10	0	0	0	15	91	316	734	1326	1872	2223	2318	2328	2328
55	0	0	2	28	101	273	439	392	214	39	1	0	0	0	2	30	131	404	843	1235	1449	1488	1489	1489
60	0	0	0	4	32	139	286	240	111	8	0	0	0	0	0	4	36	175	461	701	812	820	820	820
Base				Gro	wing Deg	gree Unit	s for Co	rn (Mont	hly)						Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	8	27	90	202	326	458	595	553	402	237	80	25	8	35	125	327	653	1111	1706	2259	2661	2898	2978	3003

(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