

# Climatology of the United States

No. 20

1971-2000

Station: GASSAWAY, WV

COOP ID: 463361

Climate Division: WV 3

NWS Call Sign:

Elevation: 840 Feet

Lat: 38°40N

Lon: 80°46W

## 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	41.9	20.3	31.1	76	1985	1	41.7	1974	-22	1994	19	16.9	1977	1052	0	.0	.0	10.6	6.4	24.9	1.6
Feb	46.8	22.1	34.5	78+	1955	20	42.2	1990	-14	1996	5	20.2	1978	856	0	.0	.0	13.0	3.6	21.9	1.0
Mar	56.6	29.6	43.1	88+	1954	25	49.8	1973	-3+	1980	3	36.7	1996	679	0	.0	.0	23.0	.5	17.5	.1
Apr	66.9	38.4	52.7	91+	1957	25	57.6	1981	17+	1982	7	46.4	1997	372	3	.0	.3	28.3	.0	8.3	.0
May	75.7	49.0	62.4	95	1987	30	69.7	1991	25+	1963	2	55.5	1997	152	69	.0	.9	31.0	.0	1.1	.0
Jun	82.1	58.3	70.2	99	1952	24	73.3	1984	33	1966	2	65.5	1972	16	171	.0	3.1	30.0	.0	.0	.0
Jul	85.4	63.5	74.5	102	1988	17	77.3	1987	40	1988	1	70.8	1996	0	293	.1	8.1	31.0	.0	.0	.0
Aug	83.7	62.3	73.0	102	1953	30	77.2	1988	40+	1965	29	69.1	1976	4	253	.0	5.4	31.0	.0	.0	.0
Sep	77.8	55.4	66.6	105	1953	3	70.4	1998	30	1951	29	63.7	1974	44	93	.0	1.2	30.0	.0	.0	.0
Oct	68.2	41.8	55.0	92	1953	2	63.9	1984	14	1952	21	47.8	1988	332	22	.0	.0	30.3	.0	5.0	.0
Nov	57.3	32.4	44.9	84	1958	18	53.7	1985	5	1958	30	36.3	1976	604	0	.0	.0	22.3	.2	14.9	.0
Dec	46.4	24.8	35.6	80	1951	7	44.4	1984	-10+	1962	13	23.6	1989	910	0	.0	.0	13.7	3.2	22.5	.4
Ann	65.7	41.5	53.6	105	Sep 1953	3	77.3	Jul 1987	-22	Jan 1994	19	16.9	Jan 1977	5021	904	.1	19.0	294.2	13.9	116.1	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/normal/usnormals.html](http://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: 1951-2001

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

018-A

# 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: GASSAWAY, WV**

**COOP ID: 463361**

**Climate Division: WV 3**

**NWS Call Sign:**

**Elevation: 840 Feet Lat: 38°40N**

**Lon: 80°46W**

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	3.50	3.01	2.30	1998	28	6.10	1994	1.06	1981	13.0	8.9	2.0	.4	1.25	1.58	2.06	2.46	2.84	3.24	3.66	4.16	4.79	5.77	6.67
Feb	3.26	2.94	3.00	1970	14	6.48	1994	.99	1978	12.1	8.3	1.9	.4	1.42	1.71	2.12	2.45	2.76	3.08	3.41	3.80	4.29	5.04	5.71
Mar	4.24	4.27	2.90	1997	1	9.11	1997	1.55	1987	13.0	9.6	2.8	.8	1.78	2.16	2.70	3.15	3.57	3.99	4.44	4.97	5.63	6.64	7.56
Apr	3.75	3.52	2.00	1970	23	7.86	1972	1.12	1971	12.5	9.1	2.1	.5	1.50	1.85	2.33	2.74	3.12	3.51	3.93	4.41	5.02	5.96	6.81
May	4.54	4.74	3.57	1994	7	7.55	1996	1.21	1977	12.7	9.6	3.3	.9	1.87	2.28	2.87	3.35	3.80	4.26	4.75	5.32	6.05	7.15	8.15
Jun	4.69	4.46	2.32	1989	23	11.09	1998	1.32	1988	11.0	8.3	3.3	1.0	1.63	2.08	2.72	3.27	3.78	4.32	4.90	5.58	6.45	7.80	9.03
Jul	5.40	4.90	4.00	1996	31	11.81	1996	2.35	1988	12.0	9.3	4.0	1.3	2.15	2.65	3.35	3.94	4.49	5.05	5.66	6.36	7.25	8.61	9.86
Aug	4.79	5.22	3.25	1963	4	8.35	1989	1.26	1981	10.2	7.5	3.3	1.4	1.79	2.23	2.88	3.41	3.92	4.45	5.01	5.67	6.50	7.79	8.97
Sep	3.86	3.81	3.76	1971	13	10.12	1971	.83	1998	9.9	6.6	3.0	.9	1.28	1.65	2.18	2.64	3.08	3.53	4.02	4.60	5.34	6.50	7.56
Oct	3.08	2.90	2.06	1976	9	6.40	1976	.68	2000	9.4	6.7	1.9	.7	.89	1.19	1.63	2.01	2.38	2.77	3.19	3.70	4.35	5.37	6.32
Nov	3.93	3.69	4.30	1985	4	12.57	1985	1.63	1981	12.2	8.2	2.5	.9	1.48	1.85	2.38	2.81	3.23	3.65	4.11	4.64	5.32	6.37	7.32
Dec	3.82	3.56	1.67	1954	30	8.12	1978	1.72	1989	13.2	8.8	2.5	.6	1.66	2.00	2.48	2.87	3.24	3.61	4.00	4.46	5.03	5.90	6.69
Ann	48.86	48.51	4.30	Nov 1985	4	12.57	Nov 1985	.68	Oct 2000	141.2	100.9	32.6	9.8	38.18	40.32	43.03	45.05	46.83	48.53	50.28	52.19	54.49	57.79	60.61

+ 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: 1951-2001

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

Complete documentation available from:  
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**Climate Division: WV 3**

**NWS Call Sign:**

**Elevation: 840 Feet**

**Lat: 38°40N**

**Lon: 80°46W**

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	7.6	5.0	2	1	11.0	1971	1	29.0	1978	24	1996	11	9	1977	3.8	3.2	1.0	.4	.1	7.8	4.1	2.7	.6
Feb	6.8	6.3	1	#	10.0	1983	11	16.0	1986	12	1977	2	7	1978	2.5	2.2	.7	.3	@	6.0	4.1	3.1	.6
Mar	3.1	.7	#	#	10.0	1993	13	20.0	1993	16	1993	14	2	1993	1.3	1.2	.3	.2	.1	1.7	1.0	.7	.1
Apr	.6	.0	#	0	6.0	1987	4	12.0	1987	10	1987	4	1	1987	.3	.2	.1	@	.0	.2	.1	.1	@
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	#	.0	#	0	#	1988	12	#+	1988	#	1972	20	#	1972	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.8	.0	#	0	7.0	1995	15	10.0	1995	5	1995	15	#+	2000	.5	.4	@	@	.0	.5	.1	@	.0
Dec	2.2	1.5	#	#	5.0	1995	7	7.5	1999	8	1997	31	2	1989	2.2	1.8	.2	@	.0	3.8	.7	.1	.0
Ann	21.1	13.5	N/A	N/A	11.0	Jan 1971	1	29.0	Jan 1978	24	Jan 1996	11	9	Jan 1977	10.6	9.0	2.3	.9	.2	20.0	10.1	6.7	1.3

+ 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	5/29	5/23	5/18	5/15	5/11	5/08	5/04	4/30	4/24
32	5/15	5/10	5/07	5/04	5/01	4/28	4/25	4/22	4/17
28	5/05	4/29	4/25	4/21	4/18	4/15	4/11	4/07	4/01
24	4/20	4/15	4/11	4/08	4/05	4/03	3/30	3/27	3/22
20	4/09	4/03	3/29	3/25	3/21	3/17	3/13	3/08	3/02
16	3/23	3/16	3/11	3/07	3/03	2/27	2/23	2/18	2/11
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	9/24	9/28	10/02	10/05	10/07	10/10	10/13	10/16	10/21
32	10/06	10/10	10/13	10/15	10/18	10/20	10/23	10/26	10/30
28	10/14	10/19	10/23	10/26	10/29	11/01	11/04	11/08	11/13
24	10/24	10/30	11/02	11/06	11/09	11/12	11/15	11/19	11/24
20	11/03	11/10	11/15	11/19	11/23	11/27	12/01	12/05	12/12
16	11/17	11/24	11/29	12/03	12/07	12/10	12/15	12/19	12/26
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	169	162	157	152	148	144	140	134	127
32	187	181	176	173	169	166	162	158	151
28	215	207	202	197	193	189	184	179	171
24	241	233	227	221	216	212	206	200	192
20	273	264	257	251	246	241	235	228	219
16	308	297	290	284	278	272	266	258	248

\* 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:  
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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	1052	856	679	372	152	16	0	4	44	332	604	910	5021
60	897	716	525	235	74	3	0	0	11	215	457	755	3888
57	804	632	439	164	42	1	0	0	4	157	373	662	3278
55	742	578	382	124	27	0	0	0	2	125	320	607	2907
50	600	449	253	50	7	0	0	0	0	63	201	463	2086
32	187	104	20	0	0	0	0	0	0	0	8	101	420

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	159	172	364	620	940	1145	1316	1272	1039	713	394	214	8348
55	0	2	13	54	254	455	603	559	351	125	16	7	2439
57	0	0	8	35	207	396	541	497	293	95	9	0	2081
60	0	0	1	16	146	308	448	404	211	59	3	0	1596
65	0	0	0	3	69	171	293	253	93	22	0	0	904
70	0	0	0	0	24	68	150	124	24	6	0	0	396

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	58	81	231	437	718	911	1070	1029	806	500	228	90	58	139	370	807	1525	2436	3506	4535	5341	5841	6069	6159
45	28	38	136	302	563	761	915	874	656	349	132	41	28	66	202	504	1067	1828	2743	3617	4273	4622	4754	4795
50	5	13	69	184	412	611	760	719	507	218	68	18	5	18	87	271	683	1294	2054	2773	3280	3498	3566	3584
55	0	0	33	104	269	463	605	564	361	118	30	2	0	0	33	137	406	869	1474	2038	2399	2517	2547	2549
60	0	0	5	45	149	319	450	409	223	51	3	0	0	0	5	50	199	518	968	1377	1600	1651	1654	1654
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	44	73	179	303	466	610	729	697	521	325	158	62	44	117	296	599	1065	1675	2404	3101	3622	3947	4105	4167

(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/normal/usnormals.html](http://www.ncdc.noaa.gov/oa/climate/normal/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](http://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"><li>a. Temperature/ Precipitation Tables<ol style="list-style-type: none"><li>1. 1971-2000 Monthly Normals</li><li>2. Cooperative Summary of the Day</li><li>3. National Weather Service station records</li><li>4. 1971-2000 serially complete daily data</li></ol></li><li>b. Degree Day Table<ol style="list-style-type: none"><li>1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals</li><li>2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data</li></ol></li></ol> | <ol style="list-style-type: none"><li>c. Snow Tables<ol style="list-style-type: none"><li>1. Snow Climatology</li><li>2. Cooperative Summary of the Day</li></ol></li><li>d. Freeze Data Table<br/>1971-2000 serially complete daily data</li></ol> |
|---|---|

## References

U.S. Climate Normals 1971-2000, [www.ncdc.noaa.gov/normal.html](http://www.ncdc.noaa.gov/normal.html)  
U.S. Climate Normals 1971-2000-Products Clim20, [www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html](http://www.ncdc.noaa.gov/oa/climate/normal/usnormalsprods.html)  
Snow Climatology Project Description, [www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html](http://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](http://www1.ncdc.noaa.gov/pub/data/special/serialcomplete_jam_0900.pdf)