

Climatography of the United States

No. 20

1971-2000

Station: UNION 3 SSE, WV

COOP ID: 469011

Climate Division: WV 5

NWS Call Sign:

Elevation: 2,110 Feet Lat: 37° 33N

Lon: 80° 32W

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	40.1	18.9	29.5	75	1950	27	40.6	1974	-23	1987	27	16.4	1977	1100	0	.0	.0	7.7	7.4	26.2	1.9
Feb	44.1	20.9	32.5	74+	1954	16	40.8	1990	-26	1996	6	22.1	1978	911	0	.0	.0	10.6	5.1	22.8	.6
Mar	53.2	28.0	40.6	83+	1954	26	47.2	1973	-11	1993	15	34.8+	1999	756	0	.0	.0	20.1	1.1	18.7	.1
Apr	63.2	35.7	49.5	88+	1985	22	53.4	1977	11	1985	10	44.6	1997	467	0	.0	.0	26.5	@	9.7	.0
May	72.3	45.0	58.7	90+	1996	20	64.7	1991	21	1986	4	53.1	1997	222	25	.0	.1	30.8	.0	2.6	.0
Jun	79.6	53.6	66.6	95	1952	28	69.4	2000	31+	1966	2	61.7	1972	43	92	.0	.4	30.0	.0	.1	.0
Jul	83.5	58.0	70.8	101	1954	15	74.2	1993	36+	1961	10	67.4	1976	6	183	.0	2.0	31.0	.0	.0	.0
Aug	82.0	56.3	69.2	97	1953	30	72.7	1987	35+	1965	30	66.4	1997	14	142	.0	1.5	31.0	.0	.0	.0
Sep	75.5	49.1	62.3	100	1953	2	66.0	1973	24	1983	24	58.9	1984	116	35	.0	.4	30.0	.0	.7	.0
Oct	65.6	36.5	51.1	94	1953	1	59.5	1984	8	1962	27	45.1	1988	435	3	.0	.0	29.4	.0	9.4	.0
Nov	54.4	28.5	41.5	82	1982	1	49.7	1985	1	1950	25	33.8	1976	706	0	.0	.0	19.9	.5	17.5	.0
Dec	44.2	22.2	33.2	74	2001	6	40.9	1984	-22	1989	23	21.2	1989	985	0	.0	.0	10.7	4.7	24.3	.8
Ann	63.1	37.7	50.5	101	Jul 1954	15	74.2	Jul 1993	-26	Feb 1996	6	16.4	Jan 1977	5761	480	.0	4.4	277.7	18.8	132.0	3.4

+ 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: 1948-2001

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

050-A

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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: UNION 3 SSE, WV

COOP ID: 469011

Climate Division: WV 5

NWS Call Sign:

Elevation: 2,110 Feet Lat: 37°33N

Lon: 80°32W

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	2.58	2.46	2.21	1998	28	5.82	1998	.40	1981	10.5	5.9	1.6	.3	.72	.96	1.33	1.66	1.98	2.31	2.68	3.11	3.67	4.56	5.39
Feb	2.48	2.25	1.76	1984	24	4.75	1972	.62	1977	10.3	6.0	1.6	.3	.80	1.04	1.38	1.68	1.96	2.26	2.58	2.96	3.44	4.20	4.90
Mar	3.18	3.14	2.92	1963	12	6.16	1991	1.11	1988	11.3	7.1	2.0	.6	1.23	1.52	1.95	2.29	2.63	2.96	3.33	3.75	4.29	5.11	5.86
Apr	3.24	3.04	2.56	1987	25	8.06	1987	.71	1976	12.2	7.2	1.9	.7	1.15	1.45	1.89	2.27	2.62	2.99	3.38	3.85	4.44	5.35	6.19
May	4.02	3.95	2.34	1996	25	7.80	1998	1.69+	1987	13.7	8.5	3.1	.6	1.83	2.19	2.68	3.07	3.44	3.82	4.21	4.67	5.24	6.11	6.89
Jun	3.36	3.17	2.41	1951	28	7.15	1995	1.01	1999	11.9	6.8	2.3	.8	1.34	1.65	2.09	2.45	2.79	3.14	3.52	3.95	4.50	5.34	6.11
Jul	3.62	3.46	4.10	1954	19	7.16	1978	1.08	1996	12.3	7.7	2.4	.8	1.73	2.04	2.47	2.82	3.14	3.46	3.80	4.19	4.68	5.41	6.08
Aug	3.12	3.13	2.95	1998	17	6.40	1985	.74	1995	10.7	6.7	2.0	.5	.94	1.23	1.68	2.06	2.43	2.82	3.25	3.75	4.40	5.41	6.35
Sep	3.14	2.98	2.85	1966	14	6.39	1989	.49+	1998	10.3	6.0	2.0	.8	.62	.90	1.37	1.79	2.22	2.68	3.20	3.83	4.66	5.99	7.26
Oct	2.53	2.39	2.90	1954	16	5.15	1976	.08	2000	8.7	5.1	1.6	.6	.42	.64	1.01	1.36	1.72	2.10	2.55	3.09	3.80	4.97	6.08
Nov	2.55	2.36	3.05	1985	5	6.74	1985	.97+	1981	9.3	5.6	2.0	.4	.83	1.07	1.43	1.73	2.02	2.33	2.66	3.05	3.55	4.33	5.04
Dec	2.29	2.12	1.90	1990	28	4.60	1990	.32	1985	9.7	5.4	1.5	.2	.49	.70	1.04	1.34	1.65	1.97	2.34	2.78	3.36	4.29	5.17
Ann	36.11	36.26	4.10	Jul 1954	19	8.06	Apr 1987	.08	Oct 2000	130.9	78.0	24.0	6.6	28.87	30.33	32.18	33.55	34.76	35.91	37.09	38.38	39.92	42.13	44.02

+ 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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NWS Call Sign:

Elevation: 2,110 Feet

Lat: 37°33N

Lon: 80°32W

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	8.0	6.4	1	1	13.9	1998	28	30.6	1996	21	1996	8	5+	1996	4.3	2.3	.6	.3	.1	8.1	3.0	1.3	.6
Feb	6.5	4.6	1	#	9.9	1983	11	22.9	1996	11+	1996	5	4	1987	3.0	1.9	.6	.3	.0	6.3	3.5	1.7	.2
Mar	4.4	1.7	#	#	10.9	1999	15	24.6	1999	16	1993	14	3	1993	1.8	1.1	.4	.3	@	2.1	.6	.4	@
Apr	1.1	.0	#	0	12.0	1971	7	12.0	1971	12	1971	7	1	1987	.4	.3	.1	@	@	.5	.3	.2	.1
May	#	.0	0	0	#	1989	8	#	1989	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	.2	.0	#	0	2.8	1979	10	2.8	1979	3	1979	10	#+	1993	.1	.1	.0	.0	.0	.1	@	.0	.0
Nov	1.1	.0	#	#	4.5	1971	25	8.5	1971	5	1971	25	#+	2000	.7	.5	.1	.0	.0	.8	.3	@	.0
Dec	4.1	2.8	1	#	10.7	1982	12	14.8	1997	13	1997	31	5	1989	2.3	1.2	.4	.2	.1	3.7	2.2	1.2	.1
Ann	25.4	15.5	N/A	N/A	13.9	Jan 1998	28	30.6	Jan 1996	21	Jan 1996	8	5+	Jan 1996	12.6	7.4	2.2	1.1	.2	21.6	9.9	4.8	1.0

+ 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

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	6/13	6/06	6/01	5/27	5/23	5/19	5/15	5/10	5/03
32	5/27	5/22	5/18	5/15	5/12	5/09	5/06	5/02	4/26
28	5/15	5/10	5/06	5/03	4/30	4/27	4/24	4/20	4/15
24	4/30	4/24	4/21	4/18	4/15	4/12	4/09	4/05	3/31
20	4/17	4/12	4/08	4/05	4/02	3/30	3/26	3/22	3/17
16	4/01	3/26	3/21	3/17	3/13	3/10	3/06	3/01	2/23
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	9/10	9/15	9/18	9/21	9/24	9/27	9/30	10/03	10/08
32	9/20	9/23	9/26	9/29	10/01	10/03	10/06	10/08	10/12
28	9/30	10/04	10/07	10/09	10/11	10/14	10/16	10/19	10/23
24	10/05	10/11	10/15	10/19	10/23	10/26	10/30	11/03	11/09
20	10/15	10/21	10/25	10/29	11/01	11/05	11/08	11/12	11/18
16	10/30	11/05	11/10	11/14	11/17	11/21	11/25	11/29	12/06
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	145	138	132	127	123	119	114	109	101
32	160	154	149	145	141	138	134	129	123
28	182	176	171	167	164	160	156	152	146
24	216	207	201	195	190	185	179	173	164
20	230	224	220	216	213	209	206	201	196
16	277	267	260	254	248	242	236	229	219

* 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	1100	911	756	467	222	43	6	14	116	435	706	985	5761
60	945	771	601	320	117	9	0	1	42	294	556	830	4486
57	852	687	511	237	71	3	0	0	19	220	468	737	3805
55	790	631	453	187	48	1	0	0	10	176	411	675	3382
50	645	493	315	86	13	0	0	0	2	91	276	529	2450
32	210	113	31	0	0	0	0	0	0	0	17	126	497

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	133	126	298	523	826	1039	1201	1151	910	592	301	163	7263
55	0	0	7	19	161	350	488	438	230	55	4	0	1752
57	0	0	3	10	122	292	426	376	179	36	2	0	1446
60	0	0	0	3	75	208	333	283	112	17	0	0	1031
65	0	0	0	0	25	92	183	142	35	3	0	0	480
70	0	0	0	0	6	24	68	46	5	0	0	0	149

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	40	58	173	344	606	815	966	923	702	391	169	67	40	98	271	615	1221	2036	3002	3925	4627	5018	5187	5254
45	11	23	94	223	452	665	811	768	552	257	91	30	11	34	128	351	803	1468	2279	3047	3599	3856	3947	3977
50	3	6	41	132	310	515	656	613	405	144	41	10	3	9	50	182	492	1007	1663	2276	2681	2825	2866	2876
55	0	0	12	61	179	368	501	458	266	65	12	0	0	0	12	73	252	620	1121	1579	1845	1910	1922	1922
60	0	0	3	17	85	228	346	303	148	20	0	0	0	0	3	20	105	333	679	982	1130	1150	1150	1150
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	29	53	126	231	384	532	653	611	453	268	121	46	29	82	208	439	823	1355	2008	2619	3072	3340	3461	3507

(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