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: 460921

Lon: 81°12W

Station: BLUEFIELD AP, WV

Climate Division: WV 5 NWS Call Sign: BLF

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 40.3 25.0 32.7 72 1985 44.2 1974 -21 1985 21 21.3 1977 1004 0 .0 .0 7.9 8.7 23.9 1.1 Jan 44.3 27.9 36.1 75 1977 26 44.4 1976 -9 1996 5 24.2 1978 810 0 .0 .0 10.1 6.5 19.2 .4 Feb Mar 53.8 35.3 44.6 83 1985 30 52.5 1973 -2 1980 3 38.3 1981 635 .0 .0 18.9 2.3 14.2 @ 43.8 1977 15 7 1987 8 Apr 63.8 53.8 88+ 1976 18 61.4 1982 49.3 344 .0 .0 25.8 .3 5.0 0. May 70.9 51.7 61.3 88 1996 19 66.3 1987 24 1966 10 56.4 1994 166 50 .0 .0 30.5 .0 .2 .0 72.6 37 76.8 59.2 68.0 91 1988 25 1984 1972 11 63.1 1972 33 122 .0 .1 30.0 .0 .0 .0 Jun Jul 80.3 62.9 71.6 96 16 75.5 1977 40 1963 68.6 2000 5 209 .0 .7 31.0 0. 1988 10 .0 .0 13 79.7 61.9 70.8 95 1988 17 75.7 1988 20 1960 24 67.6 1992 192 .0 .8 31.0 .0 .0 .0 Aug 30 75 Sep 73.3 56.2 64.8 92 +1998 13 69.5 1978 1989 24 62.1 1974 66 .0 .1 29.8 .0 @ .0 15 27 47.6 Oct 63.9 45.7 54.8 82 +1989 64.9 1984 18 1962 1988 331 15 .0 .0 28.1 (a) 2.5 .0 53.1 37.3 45.2 81 1993 14 53.4 1985 7+ 1970 24 36.8 1976 595 0 .0 .0 18.7 1.5 11.7 .0 Nov Dec 44.1 29.1 36.6 74 1982 4 47.6 1984 -13+1983 25 24.5 1989 880 0 .0 .0 11.2 5.9 20.3 .5 Jul Aug Jan Jan 62.0 44.7 53.4 96 1988 16 75.7 1988 -21 1985 21 21.3 1977 4891 663 .0 1.7 273.0 25.2 97.0 2.0 Ann

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

Issue Date: February 2004 007-A

Elevation: 2,891 Feet Lat: 37°18N

- (2) Derived from station's available digital record: 1959-2001
- (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

⁽¹⁾ From the 1971-2000 Monthly Normals

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Climate Division: WV 5 NWS Call Sign: BLF Elevation: 2,891 Feet Lat: 37°18N Lon: 81°12W

										Pı	ecipit	tation	(incl	nes)										
	Precipitation Totals Means/ Medians(1) Extremes										ean N of D	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 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	3.06	2.92	2.05	1972	20	6.97	1996	.72	1981	14.4	7.4	1.9	.3	.96	1.26	1.69	2.06	2.41	2.78	3.19	3.67	4.28	5.24	6.12
Feb	2.91	2.83	2.66	1987	27	4.58	1987	.78	1978	13.2	7.2	1.6	.4	1.29	1.55	1.91	2.20	2.48	2.75	3.05	3.39	3.81	4.46	5.05
Mar	3.63	3.36	2.20	1993	13	8.24	1993	1.74	1981	14.1	8.1	2.3	.6	1.58	1.91	2.36	2.73	3.08	3.43	3.81	4.24	4.78	5.61	6.36
Apr	3.39	3.59	3.37	1977	4	8.67	1987	.48	1976	12.8	7.3	2.1	.5	.92	1.24	1.73	2.16	2.58	3.02	3.51	4.09	4.85	6.03	7.13
May	4.31	4.16	2.40	2001	17	7.22	1971	1.87	1993	14.2	9.4	2.9	.9	2.18	2.54	3.03	3.42	3.78	4.13	4.51	4.95	5.48	6.29	7.01
Jun	3.85	3.72	3.61	1994	7	9.34	1995	.75	1999	12.6	7.6	2.7	.8	1.08	1.45	2.00	2.48	2.95	3.44	3.99	4.63	5.46	6.76	7.98
Jul	4.01	3.83	3.26	2001	8	10.24	1980	.97	1995	12.1	7.7	2.8	.9	1.64	2.00	2.52	2.95	3.35	3.76	4.20	4.70	5.35	6.33	7.22
Aug	3.20	3.18	2.15	1964	28	5.55	1989	.90	1976	10.1	6.6	2.5	.6	1.38	1.66	2.07	2.40	2.71	3.02	3.35	3.74	4.22	4.96	5.63
Sep	3.21	2.94	2.64	1979	5	7.69	1989	.38	1978	10.2	6.0	2.1	.7	.67	.96	1.43	1.86	2.29	2.76	3.28	3.90	4.73	6.06	7.31
Oct	2.61	2.44	3.18	1995	5	5.99	1976	.22	2000	9.2	5.0	1.9	.6	.51	.74	1.13	1.48	1.84	2.22	2.66	3.18	3.88	5.00	6.06
Nov	2.67	2.42	2.52	1962	9	5.63	1985	.65	1981	10.8	6.1	1.7	.4	.87	1.12	1.49	1.81	2.12	2.43	2.78	3.19	3.71	4.52	5.27
Dec	2.82	2.82	1.65	1969	30	4.78	1991	.77	1980	13.0	7.0	2.0	.4	1.03	1.29	1.67	1.99	2.29	2.61	2.95	3.34	3.84	4.62	5.33
Ann	39.67	39.70	3.61	Jun 1994	7	10.24	Jul 1980	.22	Oct 2000	146.7	85.4	26.5	7.1	31.11	32.83	34.99	36.61	38.04	39.40	40.80	42.33	44.17	46.81	49.06

⁺ 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: 1959-2001

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

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Station: BLUEFIELD AP, WV

Climate Division: WV 5 NWS Call Sign: BLF Elevation: 2,891 Feet Lat: 37°18N Lon: 81°12W

										Snov	w (incl	hes)													
						Sno	ow To	tals							Mean Number of Days (1)										
	Mean	s/Medi	ians (1)	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	6.8	1	1	16.8	1998	28	26.8	1998	24+	1996	13	6+	1996	6.0	2.8	.8	.3	.1	10.3	5.5	2.9	1.0		
Feb	8.8	7.5	1	1	9.0	1998	4	21.3	1987	13+	1998	7	4+	1998	6.5	2.9	.7	.3	.0	10.5	5.1	2.9	.3		
Mar	4.0	1.8	#	1	16.3	1993	13	25.6	1993	24+	1993	15	3	1993	3.3	1.1	.3	.1	@	3.2	1.3	.8	.1		
Apr	1.8	.1	#	0	9.5	1987	3	14.0	1971	15	1971	7	2	1987	1.2	.4	.2	.1	.0	.6	.3	.2	.1		
May	#	.0	#	0	#	1989	7	#+	1989	#+	1989	7	#	2000	.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	.3	.0	#	0	3.2	1993	31	3.2	1993	2	1993	31	#	1993	.1	.1	@	.0	.0	.1	.0	.0	.0		
Nov	1.8	.6	#	0	4.2	1976	11	10.3	1976	6	1976	12	1	1976	1.7	.6	.1	.0	.0	1.2	.5	@	.0		
Dec	5.6	4.1	1	0	7.8	1988	9	16.3	1973	14	1974	3	4	1989	4.3	2.0	.6	.2	.0	6.2	2.6	1.6	.2		
Ann	30.3	20.9	N/A	N/A	16.8	Jan 1998	28	26.8	Jan 1998	24+	Jan 1996	13	6+	Jan 1996	23.1	9.9	2.7	1.0	.1	32.1	15.3	8.4	1.7		

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

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[@] 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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				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((*)							
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	5/22	5/16	5/11	5/08	5/04	5/01	4/27	4/23	4/17						
32	5/03	4/28	4/24	4/21	4/18	4/15	4/12	4/08	4/03						
28	4/22	4/17	4/13	4/09	4/06	4/03	3/30	3/26	3/21						
24	4/15	4/09	4/05	4/01	3/29	3/26	3/22	3/18	3/12						
20	4/04	3/29	3/24	3/19	3/15	3/11	3/07	3/02	2/23						
16	3/22	3/15	3/10	3/05	3/01	2/25	2/21	2/15	2/08						
<u>'</u>		•	Fal	l Freeze Da	tes (Month/D	ay)		1	1						
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	9/27	10/02	10/05	10/07	10/10	10/12	10/15	10/18	10/23						
32	10/04	10/10	10/14	10/17	10/20	10/24	10/27	10/31	11/06						
28	10/13	10/19	10/24	10/28	10/31	11/04	11/08	11/13	11/19						
24	10/24	10/30	11/03	11/07	11/11	11/14	11/18	11/22	11/28						
20	11/07	11/13	11/18	11/22	11/25	11/29	12/03	12/08	12/14						
16	11/18	11/24	11/29	12/02	12/06	12/09	12/13	12/18	12/24						
				Freeze F	ree Period										
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	180	172	167	162	158	154	149	144	136						
32	210	201	195	189	185	180	174	168	159						
28	234	225	218	213	208	202	197	190	181						
24	252	243	237	231	226	221	215	208	199						
20	280	271	265	259	254	249	244	237	229						
16	304	295	289	284	279	274	269	263	254						

^{*} 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 l	Days (1)							
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann		
65	1004	810	635	344	166	33	5	13	75	331	595	880	4891		
60	849	670	489	215	81	6	0	1	22	209	453	727	3722		
57	757	586	405	153	46	2	0	0	8	150	370	642	3119		
55	701	532	353	118	29	0	0	0	4	117	319	584	2757		
50	557	403	238	52	8	0	0	0	0	55	207	445	1965		
32	165	76	22	0	0	0	0	0	0	0	13	105	381		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	184	190	412	654	907	1079	1227	1202	981	707	409	248	8200
55	8	3	29	82	223	390	514	489	295	111	24	14	2182
57	2	1	20	57	178	331	452	427	240	82	16	10	1816
60	0	0	11	29	120	245	359	334	164	48	8	2	1320
65	0	0	1	8	50	122	209	192	66	15	0	0	663
70	0	0	0	0	15	41	88	85	16	3	0	0	248

	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	54	93	210	416	654	829	970	938	730	454	221	100	54	147	357	773	1427	2256	3226	4164	4894	5348	5569	5669
45	27	50	130	290	501	679	815	783	580	318	134	50	27	77	207	497	998	1677	2492	3275	3855	4173	4307	4357
50	3	19	65	188	352	529	660	628	432	192	71	24	3	22	87	275	627	1156	1816	2444	2876	3068	3139	3163
55	0	4	33	103	222	382	505	473	291	97	32	2	0	4	37	140	362	744	1249	1722	2013	2110	2142	2144
60	0	0	8	51	116	240	351	319	166	40	8	0	0	0	8	59	175	415	766	1085	1251	1291	1299	1299
Base				Gro	wing De	gree Unit	s for Co	rn (Mont	hly)						Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	29	49	117	240	386	535	654	626	444	249	115	45	29	78	195	435	821	1356	2010	2636	3080	3329	3444	3489

(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