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: 465365

Lon: 81°22W

Station: LONDON LOCKS, WV

Climate Division: WV 3 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 42.7 25.0 33.9 82 1950 26 45.0 1974 -16 1985 22 19.3 1977 966 0 .0 .0 9.4 6.4 23.9 .8 Jan .2 46.8 26.7 80 +1937 9 45.2 1990 -7+ 1996 5 23.8 1978 791 0 .0 .0 11.8 4.0 19.7 Feb 36.8 Mar 56.6 33.3 45.0 88 1998 31 52.4 1973 -1 1980 3 38.4 1980 622 0 .0 .0 21.2 .9 14.8 .1 27 48.7 1982 Apr 66.8 41.1 54.0 92 +1942 59.3 1991 18 1951 18 337 4 .0 .2 27.6 .0 4.4 .0 May 74.9 50.8 62.9 95 1991 30 70.8 1991 28 +1947 10 57.7 1981 148 81 .0 .6 31.0 .0 .2 .0 71.3 1944 74.6 39+ 4.5 Jun 82.2 60.3 98 19 1984 1945 6 66.6+ 1980 20 208 .0 30.0 .0 .0 .0 Jul 85.9 65.5 75.7 101 1954 15 79.0 43+ 1962 27 72.1 1976 332 8.3 31.0 0. 1991 0 .1 .0 .0 1982 84.3 65.1 74.7 103 1936 22 79.9 1995 45 1984 26 69.4 4 304 @ 5.7 31.0 .0 .0 .0 Aug 36 38 Sep 78.0 59.0 68.5 100 1953 4 73.1 1971 1942 29 63.1 1976 144 .0 1.4 30.0 .0 .0 .0 27 Oct 67.6 46.5 57.1 93 1953 1 65.2 1971 21 1962 49.6 1976 283 36 .0 .0 30.0 .0 1.6 .0 57.1 36.8 47.0 85 1948 6 55.2 1985 4 1950 26 37.2 1976 543 2 .0 .0 21.0 11.2 .0 Nov .2 Dec 46.8 29.3 38.1 79+ 1951 8 47.5 1971 -7+ 1983 25 27.3 1989 836 0 .0 .0 12.4 3.0 20.1 .2 Aug Aug Jan Jan 65.8 45.0 55.4 103 1936 22 79.9 1995 1985 22 19.3 1977 4588 1111 20.7 286.4 14.5 95.9 1.3 -16 .1 Ann

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

Issue Date: February 2004 026-A

(1) From the 1971-2000 Monthly Normals

Elevation: 620 Feet Lat: 38°12N

- (2) Derived from station's available digital record: 1936-2001
- (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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Station: LONDON LOCKS, WV COOP ID: 465365

Climate Division: WV 3 NWS Call Sign: Elevation: 620 Feet Lat: 38°12N Lon: 81°22W

										Pı	recipi	tation	(incl	nes)												
	Mea	ans/	P	recipi	itatio	on Total						ays (3	5)	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	3.44	3.67	1.62	1939	30	5.86	1972	.84	1983	14.9	8.9	2.0	.5	1.06	1.39	1.88	2.29	2.70	3.12	3.58	4.12	4.81	5.90	6.91		
Feb	2.95	2.52	1.95	1962	27	6.39	1972	1.30	1978	12.1	7.4	1.8	.3	1.25	1.52	1.89	2.20	2.49	2.78	3.10	3.46	3.91	4.61	5.24		
Mar	3.78	3.27	1.97	1967	7	8.42	1994	1.05	1987	13.3	8.8	2.5	.5	1.41	1.76	2.27	2.69	3.10	3.51	3.95	4.47	5.13	6.14	7.07		
Apr	3.67	3.76	2.05	1948	13	6.80	1980	1.14	1976	13.0	8.7	2.4	.7	1.46	1.80	2.28	2.68	3.05	3.44	3.85	4.32	4.93	5.85	6.70		
May	4.87	5.03	2.50+	1996	6	10.96	1996	1.32	1977	13.6	9.8	3.2	1.1	1.88	2.33	2.98	3.52	4.02	4.54	5.10	5.75	6.58	7.84	9.00		
Jun	4.22	4.23	3.36	1984	25	9.21	1998	.90	1988	11.9	8.6	2.8	.9	1.33	1.73	2.32	2.83	3.32	3.83	4.39	5.05	5.90	7.22	8.44		
Jul	5.07	5.40	3.28	1954	21	9.74	2000	1.24	1987	11.7	8.4	3.8	1.3	2.15	2.61	3.26	3.78	4.28	4.78	5.32	5.94	6.72	7.91	8.99		
Aug	4.17	3.69	3.30	1945	2	7.34	1977	1.49	1981	9.7	7.2	3.3	1.1	1.68	2.06	2.60	3.05	3.47	3.90	4.37	4.90	5.58	6.62	7.56		
Sep	3.50	2.85	3.10	1996	7	8.06	1989	.91	1983	9.1	6.8	2.3	.9	.92	1.25	1.75	2.20	2.64	3.10	3.61	4.22	5.01	6.27	7.43		
Oct	2.62	2.44	2.80	1937	28	5.89	1976	.56	2000	9.4	5.8	1.8	.4	.77	1.02	1.39	1.72	2.03	2.36	2.72	3.15	3.70	4.56	5.37		
Nov	3.49	3.29	4.02	1973	28	8.08	1973	.99	1976	12.0	7.5	2.1	.5	1.14	1.47	1.96	2.37	2.77	3.18	3.63	4.16	4.84	5.89	6.86		
Dec	3.48	3.01	2.34	1978	9	8.54	1978	.84	1989	12.8	7.6	2.4	.7	1.22	1.55	2.03	2.43	2.81	3.20	3.63	4.13	4.77	5.75	6.65		
Ann	45.26	44.76	4.02	Nov 1973	28	10.96	May 1996	.56	Oct 2000	143.5	95.5	30.4	8.9	35.88	37.78	40.16	41.93	43.50	44.99	46.52	48.19	50.20	53.07	55.52		

⁺ 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: 1936-2001

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

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COOP ID: 465365

Station: LONDON LOCKS, WV

Climate Division: WV 3 NWS Call Sign: Elevation: 620 Feet Lat: 38°12N Lon: 81°22W

										Snov	w (incl	hes)														
						Sn	ow To	tals							Mean Number of Days (1)											
	Mean	s/Medi	ans (1)	1					Extre	mes (2)			ow Fa	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	5.4	.5	1	#	14.0	1971	1	23.1	1971	21	1978	22	7	1978	-9.9	-9.9	-9.9	-9.9	-9.9	.9	.5	.4	.3			
Feb	2.2	.8	1	#	6.0	1971	14	10.0	1971	13	1974	9	5	1974	-9.9	-9.9	-9.9	-9.9	-9.9	1.3	.6	.2	.0			
Mar	1.5	.0	#	0	4.0	1971	4	7.0	1982	9	1980	2	3	1973	.9	.6	.3	.0	.0	.2	.1	.0	.0			
Apr	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
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	-9.9	-9.9	-9.9	-9.9	-9.9	.0	.0	.0	.0			
Oct	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	-9.9	-9.9	-9.9	-9.9	-9.9	.0	.0	.0	.0			
Nov	.1	.0	#	0	.5	1971	22	.5	1971	1	1971	22	#	1971	.1	.0	.0	.0	.0	@	.0	.0	.0			
Dec	.6	-99.9	#	0	3.0	1989	9	3.0	1989	4	1981	17	#+	1989	-9.9	-9.9	-9.9	-9.9	-9.9	.1	.0	.0	.0			
Ann	9.8	-9.9	N/A	N/A	14.0	Jan 1971	1	23.1	Jan 1971	21	Jan 1978	22	7	Jan 1978	-9.9	-9.9	-9.9	-9.9	-9.9	2.5	1.2	.6	.3			

⁺ 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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COOP ID: 465365

Lon: 81°22W

Lat: 38°12N

Elevation: 620 Feet

Station: LONDON LOCKS, WV

Climate Division: WV 3

NWS Call Sign:

Freeze Data Spring Freeze Dates (Month/Day) Probability of later date in spring (thru Jul 31) than indicated(*) Temp (F) .10 .20 .30 .40 .60 .70 .80 .90 36 5/14 5/09 5/05 5/02 4/29 4/26 4/23 4/19 4/14 32 5/01 4/26 4/22 4/18 4/15 4/12 4/09 4/05 3/30 28 4/15 4/10 4/07 4/04 4/01 3/29 3/26 3/23 3/18 24 4/03 3/27 3/21 3/17 3/13 3/09 3/04 2/27 2/20 20 3/22 3/15 3/10 3/05 3/01 2/25 2/21 2/16 2/09 3/07 2/23 16 3/16 2/28 2/17 2/12 2/06 1/31 1/21 Fall Freeze Dates (Month/Day) Probability of earlier date in fall (beginning Aug 1) than indicated(*) Temp (F) .20 .30 .40 .50 .70 .10 .60 .80 .90 36 10/10 10/14 10/17 10/20 10/23 10/25 10/28 10/31 11/05 32 10/15 10/20 10/25 10/28 11/01 11/04 11/08 11/12 11/18 28 10/26 10/31 11/04 11/08 11/11 11/14 11/17 11/21 11/26 24 11/09 11/15 11/20 11/25 11/29 12/03 12/07 12/12 12/19 20 11/16 11/23 11/28 12/03 12/07 12/11 12/15 12/20 12/28 12/20 12/24 12/29 1/02 16 12/03 12/10 12/15 1/07 1/15 Freeze Free Period **Probability of longer than indicated freeze free period (Days)** Temp (F) .10 .20 .30 .40 .50 .60 .70 .80 .90 197 190 185 180 176 172 36 168 163 156 32 224 216 209 204 199 194 188 182 173 28 244 237 232 227 223 218 214 201 209 24 289 279 272 266 260 254 248 241 231 292 274 261 20 309 299 286 280 268 251 327 302

313

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

320

Complete documentation available from:

296

339

16

288

279

308

^{*} Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

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Climate Division: WV 3 NWS Call Sign: Elevation: 620 Feet Lat: 38°12N Lon: 81°22W

				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)	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	966	791	622	337	148	20	0	4	38	283	543	836	4588											
60	814	651	473	205	72	4	0	0	10	177	401	681	3488											
57	730	568	388	140	41	1	0	0	4	126	321	597	2916											
55	671	518	334	104	27	0	0	0	2	98	271	538	2563											
50	531	389	216	40	7	0	0	0	0	46	166	400	1795											
32	165	76	15	0	0	0	0	0	0	0	5	77	338											

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	222	208	416	658	956	1178	1355	1323	1096	776	454	264	8906
55	15	7	22	72	270	488	642	610	408	162	29	12	2737
57	11	1	14	48	222	429	580	548	350	128	19	9	2359
60	3	0	7	23	160	342	487	455	266	85	9	0	1837
65	0	0	0	4	81	208	332	304	144	36	2	0	1111
70	0	0	0	0	32	102	185	168	58	12	0	0	557

										Gro	wing 1	Degre	e Uni	ts (2)											
Base					Growin	g Degree	Units (N	(Ionthly)					Growing Degree Units (Accumulated Monthly)												
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
40	63	90	226	442	721	947	1111	1075	852	525	242	101	63	153	379	821	1542	2489	3600	4675	5527	6052	6294	6395	
45	31	44	134	303	566	797	956	920	702	374	148	48	31	75	209	512	1078	1875	2831	3751	4453	4827	4975	5023	
50	7	15	68	189	415	647	801	765	552	241	75	21	7	22	90	279	694	1341	2142	2907	3459	3700	3775	3796	
55	0	1	31	104	276	497	646	610	402	136	31	2	0	1	32	136	412	909	1555	2165	2567	2703	2734	2736	
60	0	0	7	45	157	351	491	455	265	61	5	0	0	0	7	52	209	560	1051	1506	1771	1832	1837	1837	
Base	Growing Degree Units for Corn (Monthly)													•	Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)	•		
50/86	37 61 151 277 450 635 769 742 552 310 146 59												37	98	249	526	976	1611	2380	3122	3674	3984	4130	4189	

(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.

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