

Climatology of the United States No. 20

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801
www.ncdc.noaa.gov

Station: CHILDERSBURG WATER PLANT, AL

1971-2000

COOP ID: 011620

Climate Division: AL 4

NWS Call Sign: EET

Elevation: 418 Feet

Lat: 33° 17N

Lon: 86° 21W

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	57.3	32.8	45.1	80	1975	29	56.6	1974	-4	1985	21	34.8	1977	625	0	.0	.0	23.6	.4	16.1	.1
Feb	62.5	35.3	48.9	85	1962	13	55.7	1990	4	1996	5	40.5	1978	451	0	.0	.0	23.5	.2	12.7	.0
Mar	71.1	42.2	56.7	89+	1995	23	62.6	1974	7	1993	14	51.1	1993	279	20	.0	.0	30.2	@	6.5	.0
Apr	77.9	48.0	63.0	92+	1987	30	68.3	1999	23	1962	2	58.4+	1997	114	52	.0	.3	30.0	.0	1.8	.0
May	83.9	56.9	70.4	97+	1996	24	74.6	2000	33	1960	13	65.8	1976	22	188	.0	4.6	31.0	.0	.0	.0
Jun	89.9	64.4	77.2	102+	1988	27	81.5	1981	41	1966	1	73.7	1974	0	363	.4	17.0	30.0	.0	.0	.0
Jul	92.5	68.4	80.5	105+	2000	20	83.6	1980	51	1967	15	78.2	1972	0	479	1.5	23.8	31.0	.0	.0	.0
Aug	92.0	67.0	79.5	104+	2000	19	83.1	1983	49	1968	30	75.4	1992	0	449	1.3	22.0	31.0	.0	.0	.0
Sep	87.2	61.2	74.2	100	1962	11	78.3	1980	34	1967	30	70.9	1996	6	283	.0	11.1	30.0	.0	.0	.0
Oct	78.4	48.7	63.6	93+	2000	6	70.0	1984	22	1987	22	57.1	1987	124	78	.0	.9	31.0	.0	1.6	.0
Nov	68.5	40.9	54.7	87+	2000	3	62.8	1985	14+	1976	30	47.2	1976	323	13	.0	.0	29.3	.0	8.4	.0
Dec	60.2	35.1	47.7	83	1998	7	56.0	1984	2	1962	13	40.1	1989	543	4	.0	.0	25.8	.2	14.5	.0
Ann	76.8	50.1	63.5	105+	Jul 2000	20	83.6	Jul 1980	-4	Jan 1985	21	34.8	Jan 1977	2487	1929	3.2	79.7	346.4	.8	61.6	.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

Issue Date: February 2004

(1) From the 1971-2000 Monthly Normals

(2) Derived from station's available digital record: 1957-2001

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

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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	6.08	6.07	4.08	1982	3	12.86	1972	1.45	1981	10.8	8.7	4.1	2.0	2.43	2.99	3.78	4.44	5.06	5.69	6.37	7.15	8.15	9.67	11.06
Feb	5.48	5.21	4.60	1991	20	13.53	1995	1.92	1973	8.7	6.7	3.5	1.8	1.86	2.38	3.14	3.78	4.39	5.03	5.72	6.53	7.57	9.18	10.66
Mar	6.73	5.82	6.90	1990	16	20.51	1976	1.38	1985	10.1	7.9	4.4	2.2	1.50	2.12	3.11	4.00	4.89	5.83	6.90	8.17	9.84	12.50	15.01
Apr	5.13	4.52	6.22	1974	4	18.52	1979	.20	1986	8.1	6.4	3.3	1.7	.74	1.17	1.91	2.62	3.36	4.17	5.11	6.26	7.81	10.33	12.76
May	4.36	3.66	4.38	1979	31	9.86	1976	1.04	1977	8.6	6.9	2.9	1.3	1.17	1.59	2.21	2.77	3.31	3.88	4.51	5.26	6.23	7.76	9.18
Jun	4.00	3.06	3.16	1963	23	14.22	1989	.84	1988	9.5	7.3	2.7	1.2	.92	1.29	1.88	2.41	2.93	3.48	4.11	4.85	5.83	7.38	8.84
Jul	4.75	4.65	3.32	1975	7	10.33	1971	.22	1993	10.7	8.0	3.2	1.5	1.13	1.57	2.27	2.89	3.50	4.16	4.89	5.76	6.90	8.71	10.42
Aug	3.62	3.31	3.50	1961	31	10.72	1974	.78	2000	7.8	5.8	2.4	1.0	1.31	1.65	2.14	2.55	2.94	3.35	3.78	4.29	4.94	5.93	6.85
Sep	4.12	3.43	5.51	1975	23	12.78	1988	.27	1990	7.5	5.5	2.6	1.4	.48	.79	1.37	1.94	2.56	3.24	4.04	5.03	6.38	8.60	10.76
Oct	3.24	2.85	5.25	1982	12	9.86	1995	.50	1978	5.9	4.5	2.3	1.0	.74	1.04	1.52	1.94	2.37	2.82	3.32	3.92	4.71	5.97	7.15
Nov	4.27	3.91	2.84	1992	4	9.47	1983	.91	1980	8.4	6.5	3.2	1.3	1.16	1.57	2.19	2.73	3.25	3.81	4.42	5.15	6.09	7.58	8.97
Dec	4.82	4.57	6.80	1983	3	14.93	1983	.81	1980	9.5	6.9	3.3	1.3	1.40	1.86	2.55	3.15	3.73	4.34	5.00	5.79	6.81	8.41	9.90
Ann	56.60	57.77	6.90	Mar 1990	16	20.51	Mar 1976	.20	Apr 1986	105.6	81.1	37.9	17.7	39.68	42.94	47.12	50.30	53.13	55.87	58.70	61.84	65.65	71.18	75.97

+ 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: 1957-2001

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

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Lat: 33°17N

Lon: 86°21W

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	.5	.0	0	0	4.0	1992	19	5.0	1992	0	0	0	0	0	.3	.2	.1	.0	.0	.0	.0	.0	.0
Feb	.1	.0	0	0	1.0	1995	7	1.0	1995	0	0	0	0	0	.1	.1	.0	.0	.0	.0	.0	.0	.0
Mar	.6	.0	0	0	12.0	1993	13	12.0	1993	0	0	0	0	0	.1	.1	.1	.1	.1	.0	.0	.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	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	#	.0	0	0	#	1993	31	#	1993	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	#	.0	#	0	#	1996	19	#	1996	#	1996	19	#	1996	.0	.0	.0	.0	.0	.0	.0	.0	.0
Ann	1.2	.0	N/A	N/A	12.0	Mar 1993	13	12.0	Mar 1993	#	Dec 1996	19	#	Dec 1996	.5	.4	.2	.1	.1	.0	.0	.0	.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	4/30	4/25	4/22	4/20	4/17	4/15	4/12	4/09	4/05
32	4/19	4/15	4/11	4/08	4/05	4/03	3/31	3/27	3/22
28	4/09	4/02	3/28	3/23	3/19	3/15	3/11	3/06	2/27
24	3/16	3/09	3/04	2/28	2/24	2/21	2/17	2/12	2/05
20	3/09	3/02	2/25	2/20	2/16	2/12	2/07	2/02	1/26
16	2/27	2/18	2/12	2/07	2/02	1/28	1/22	1/14	12/31
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	10/02	10/07	10/10	10/13	10/15	10/18	10/20	10/24	10/28
32	10/08	10/14	10/18	10/21	10/24	10/28	10/31	11/04	11/10
28	10/28	11/02	11/05	11/09	11/12	11/15	11/18	11/22	11/27
24	11/08	11/14	11/19	11/23	11/27	11/30	12/04	12/09	12/15
20	11/20	11/28	12/04	12/10	12/15	12/20	12/25	12/31	1/09
16	12/06	12/16	12/23	12/30	1/04	1/11	1/17	1/26	2/11
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	197	191	187	183	180	177	173	169	164
32	218	212	208	205	201	198	194	190	185
28	262	253	247	242	236	231	226	220	211
24	298	290	284	279	274	270	265	259	250
20	331	321	313	307	301	295	289	282	272
16	>365	>365	362	344	334	325	317	308	296

* 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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Climate Division: AL 4 NWS Call Sign: EET Elevation: 418 Feet Lat: 33°17N Lon: 86°21W

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	625	451	279	114	22	0	0	0	6	124	323	543	2487
60	481	319	165	43	4	0	0	0	1	55	201	400	1669
57	400	244	112	19	1	0	0	0	0	29	144	320	1269
55	349	199	82	10	0	0	0	0	0	18	111	271	1040
50	239	110	31	1	0	0	0	0	0	4	49	171	605
32	24	1	0	0	0	0	0	0	0	0	0	8	33

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	429	474	763	928	1190	1353	1502	1472	1267	977	681	493	11529
55	40	28	133	249	477	663	789	759	577	281	102	42	4140
57	29	17	100	198	415	603	727	697	517	231	74	29	3637
60	18	8	60	131	325	513	634	604	428	164	42	16	2943
65	0	0	20	52	188	363	479	449	283	78	13	4	1929
70	0	0	5	13	86	218	324	295	155	27	2	0	1125

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	219	291	520	692	946	1120	1262	1228	1032	733	442	271	219	510	1030	1722	2668	3788	5050	6278	7310	8043	8485	8756
45	125	185	372	542	791	970	1107	1073	882	578	311	164	125	310	682	1224	2015	2985	4092	5165	6047	6625	6936	7100
50	66	102	244	399	636	820	952	918	732	426	195	94	66	168	412	811	1447	2267	3219	4137	4869	5295	5490	5584
55	30	50	142	258	481	670	797	763	582	281	108	47	30	80	222	480	961	1631	2428	3191	3773	4054	4162	4209
60	6	17	64	150	330	520	642	608	433	161	50	18	6	23	87	237	567	1087	1729	2337	2770	2931	2981	2999
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	144	203	355	468	635	757	851	828	694	496	306	184	144	347	702	1170	1805	2562	3413	4241	4935	5431	5737	5921

(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 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.

- | | |
|---|---|
| <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