

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: NEW BERN CRAVEN CO AP, NC

1971-2000

COOP ID: 316108

Climate Division: NC 7

NWS Call Sign: EWN

Elevation: 16 Feet

Lat: 35°04N

Lon: 77°03W

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	54.4	33.9	44.2	81+	1950	31	55.5	1974	1	1985	21	33.1	1977	651	0	.0	.0	21.4	.5	13.3	.0
Feb	57.4	35.5	46.5	88	1962	28	53.1	1990	6	1973	13	36.6	1978	519	0	.0	.0	21.1	.3	10.6	.0
Mar	64.3	42.1	53.2	90+	1985	30	58.0	1976	17	1980	4	48.9	1999	370	5	.0	.1	28.8	@	4.3	.0
Apr	72.4	49.7	61.1	95	1990	26	64.8	1994	29	1950	15	57.1	1983	143	24	.0	.8	29.9	.0	.3	.0
May	79.0	58.7	68.9	100	1953	26	73.8	1991	32	1963	2	64.9	1992	29	148	.0	2.7	31.0	.0	.0	.0
Jun	84.9	66.5	75.7	105	1952	27	78.8	1994	44	1966	2	70.7	1979	1	322	.1	8.6	30.0	.0	.0	.0
Jul	88.3	71.1	79.7	106	1952	22	82.9	1993	55	1975	2	77.1	1975	0	457	.2	15.2	31.0	.0	.0	.0
Aug	87.0	70.1	78.6	103	1954	5	81.3	1988	50	1965	30	75.9	1981	0	419	.1	11.7	31.0	.0	.0	.0
Sep	82.8	65.1	74.0	101	1954	6	76.5	1980	43	1970	30	70.2	1981	3	271	.0	3.7	30.0	.0	.0	.0
Oct	74.4	53.1	63.8	97	1954	5	69.2	1971	26	1962	27	58.8	1976	125	87	.0	.3	31.0	.0	.1	.0
Nov	66.0	43.7	54.9	87+	1974	3	63.5	1985	17	1950	26	47.3	1976	317	13	.0	.0	28.9	.0	3.6	.0
Dec	57.7	36.3	47.0	83	1971	16	55.4	1971	-4	1989	25	36.1	1989	564	7	.0	.0	24.4	.2	11.4	@
Ann	72.4	52.2	62.3	106	Jul 1952	22	82.9	Jul 1993	-4	Dec 1989	25	33.1	Jan 1977	2722	1753	.4	43.1	338.5	1.0	43.6	@

+ 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

069-A

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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	4.77	4.72	3.84	1992	3	7.60	1991	1.50	1981	11.9	8.1	3.6	1.2	2.02	2.45	3.06	3.55	4.02	4.49	5.00	5.59	6.33	7.45	8.47
Feb	3.80	3.03	3.20	1982	13	9.39	1983	1.28	1977	9.8	6.3	2.8	1.1	1.05	1.41	1.96	2.44	2.91	3.40	3.94	4.58	5.41	6.72	7.94
Mar	4.49	4.12	3.28	1994	2	9.17	1983	2.20	1981	10.5	7.3	3.0	1.1	2.21	2.60	3.12	3.53	3.92	4.30	4.71	5.18	5.76	6.64	7.42
Apr	3.40	3.48	2.57	1959	12	8.36	2000	.72+	1994	8.5	5.9	2.2	1.0	.88	1.20	1.69	2.13	2.56	3.01	3.51	4.10	4.88	6.11	7.26
May	4.19	3.96	4.53	1969	25	8.00	1990	.99	1982	10.9	7.1	3.0	1.1	1.62	2.01	2.56	3.02	3.46	3.91	4.39	4.94	5.65	6.74	7.73
Jun	4.80	4.46	5.61	1962	29	11.63	1995	1.28	1994	10.2	7.1	2.9	1.3	1.62	2.07	2.74	3.30	3.84	4.40	5.00	5.71	6.63	8.04	9.34
Jul	6.48	5.79	7.33	1963	31	13.88	1975	2.90	1990	13.0	9.2	4.1	1.9	2.64	3.23	4.07	4.76	5.42	6.08	6.79	7.62	8.66	10.26	11.71
Aug	6.84	6.40	8.85	1986	19	13.03	1986	1.72	1993	12.6	8.7	4.2	2.2	2.25	2.90	3.85	4.66	5.44	6.25	7.13	8.16	9.48	11.53	13.42
Sep	5.45	4.27	9.90	1955	19	13.93	1984	.98	1986	10.3	6.8	3.3	1.9	1.09	1.59	2.39	3.12	3.86	4.66	5.56	6.64	8.07	10.37	12.54
Oct	3.39	3.09	6.18	1999	17	9.81	1971	.13	2000	7.4	4.9	2.0	.8	.44	.71	1.19	1.66	2.16	2.71	3.35	4.14	5.21	6.96	8.66
Nov	3.23	3.01	3.34	1985	22	7.68	1985	.28	1973	8.5	5.2	2.0	.8	.84	1.14	1.61	2.02	2.43	2.86	3.33	3.90	4.63	5.80	6.88
Dec	3.84	3.74	4.79	1973	8	9.78	1973	.60	1985	10.7	6.1	2.3	1.1	.94	1.30	1.86	2.36	2.85	3.37	3.96	4.65	5.56	7.00	8.35
Ann	54.68	52.70	9.90	Sep 1955	19	13.93	Sep 1984	.13	Oct 2000	124.3	82.7	35.4	15.5	44.35	46.45	49.09	51.06	52.78	54.42	56.10	57.93	60.12	63.25	65.91

+ 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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Elevation: 16 Feet

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Lon: 77°03W

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	.4	#	#	0	5.3	1973	8	6.1	1973	5	1973	9	1	1973	.3	.1	@	@	.0	.4	.2	@	.0
Feb	.9	.0	#	0	11.0	1973	10	13.0	1973	13	1973	11	2	1973	.3	.2	.1	@	@	.4	.3	.2	.1
Mar	.5	.0	#	0	9.0	1980	2	11.5	1980	12	1980	3	1	1980	.2	.1	@	@	.0	.2	.1	.1	.1
Apr	.0	.0	#	0	1.0	1989	11	1.0	1989	1	1989	11	#	1989	.0	.0	.0	.0	.0	@	.0	.0	.0
May	.0	.0	#	0	.0	0	0	.0	0	0	0	0	#	1993	.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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	#	.0	0	0	#	1977	26	#	1977	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.5	.0	#	0	6.2	1989	23	8.8	1989	8	1989	25	1	1989	.1	.1	.1	@	.0	.4	.2	.1	.0
Ann	2.3	#	N/A	N/A	11.0	Feb 1973	10	13.0	Feb 1973	13	Feb 1973	11	2	Feb 1973	.9	.5	.2	@	@	1.4	.8	.4	.2

+ 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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Elevation: 16 Feet

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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	4/18	4/13	4/09	4/06	4/03	3/31	3/28	3/24	3/18
32	4/08	4/02	3/28	3/24	3/21	3/17	3/13	3/09	3/02
28	3/16	3/10	3/06	3/02	2/27	2/24	2/20	2/16	2/11
24	3/08	3/01	2/25	2/20	2/16	2/12	2/08	2/03	1/25
20	2/22	2/14	2/09	2/04	1/30	1/25	1/19	1/09	0/00
16	2/02	1/26	1/20	1/13	1/03	0/00	0/00	0/00	0/00
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	10/17	10/22	10/26	10/29	11/01	11/04	11/07	11/11	11/16
32	11/03	11/07	11/11	11/13	11/16	11/19	11/21	11/25	11/29
28	11/13	11/19	11/24	11/28	12/01	12/05	12/09	12/14	12/20
24	11/28	12/07	12/13	12/19	12/24	12/29	1/04	1/11	1/22
20	12/19	12/27	1/02	1/08	1/13	1/18	1/25	2/04	0/00
16	1/01	1/10	1/18	1/27	2/10	0/00	0/00	0/00	0/00
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	236	227	221	216	211	206	201	195	186
32	261	254	248	244	239	235	231	225	218
28	301	293	287	281	277	272	267	261	252
24	>365	332	323	315	309	303	297	290	280
20	>365	>365	>365	358	347	339	331	323	312
16	>365	>365	>365	>365	>365	>365	>365	>365	354

* 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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COOP ID: 316108

Climate Division: NC 7 NWS Call Sign: EWN Elevation: 16 Feet Lat: 35°04N Lon: 77°03W

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	651	519	370	143	29	1	0	0	3	125	317	564	2722
60	507	387	233	55	4	0	0	0	0	58	196	420	1860
57	424	310	165	25	1	0	0	0	0	32	139	341	1437
55	372	262	128	13	0	0	0	0	0	20	107	292	1194
50	258	162	57	2	0	0	0	0	0	5	46	191	721
32	29	6	0	0	0	0	0	0	0	0	0	13	48

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	406	411	658	871	1142	1310	1480	1442	1257	985	687	479	11128
55	36	23	73	194	429	620	767	729	567	292	103	44	3877
57	26	15	49	146	367	560	705	667	507	242	75	31	3390
60	16	8	23	86	278	470	612	574	418	175	43	18	2721
65	0	0	5	24	148	322	457	419	271	87	13	7	1753
70	0	0	0	3	58	184	302	264	138	32	2	0	983

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	215	254	448	664	932	1100	1261	1217	1039	757	477	281	215	469	917	1581	2513	3613	4874	6091	7130	7887	8364	8645
45	123	154	305	516	777	950	1106	1062	889	602	337	169	123	277	582	1098	1875	2825	3931	4993	5882	6484	6821	6990
50	62	85	183	368	622	800	951	907	739	449	220	91	62	147	330	698	1320	2120	3071	3978	4717	5166	5386	5477
55	28	41	104	238	467	650	796	752	589	302	123	45	28	69	173	411	878	1528	2324	3076	3665	3967	4090	4135
60	6	16	46	130	316	500	641	597	439	177	58	20	6	22	68	198	514	1014	1655	2252	2691	2868	2926	2946
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	131	161	272	415	613	765	888	861	721	481	291	166	131	292	564	979	1592	2357	3245	4106	4827	5308	5599	5765

(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