## 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: 311564** 

Lon: 83°06W

Station: CATALOOCHEE, NC

**Climate Division: NC 1** 

**NWS Call Sign:** 

Temperature (°F)

										Гетр	eratur	re (°F)									
	Mea	<b>n</b> (1)						Extr	emes		Degree Base To	Days (1) emp 65		Mean	Numb	er of I	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	45.6	21.7	33.7	71	1999	28	45.7	1974	-20	1985	21	22.3	1977	971	0	.0	.0	12.5	3.6	25.7	1.3
Feb	49.8	23.6	36.7	76+	1996	24	43.4	1990	-12	1966	1	29.2	1978	792	0	.0	.0	15.4	2.5	22.7	.4
Mar	57.6	30.0	43.8	88	1968	22	49.2	1997	0	1993	15	38.4	1981	657	0	.0	.0	23.7	.4	19.6	.1
Apr	65.9	36.9	51.4	86+	1995	11	56.3	1981	16	1987	1	46.2	1983	408	0	.0	.0	27.7	@	10.3	.0
May	72.7	45.7	59.2	89+	2000	28	63.3	1987	26+	1989	8	55.3	1989	201	21	.0	.0	30.8	.0	2.1	.0
Jun	78.2	53.1	65.7	90+	1978	29	68.9	1981	30	1966	1	61.0	1972	50	69	.0	@	30.0	.0	.0	.0
Jul	81.3	57.5	69.4	93	1971	19	72.9	1993	38	1988	2	66.9	1984	6	143	.0	.6	31.0	.0	.0	.0
Aug	80.0	56.4	68.2	93+	1983	22	70.9	1995	40	1968	29	66.1	1972	10	109	.0	.4	31.0	.0	.0	.0
Sep	75.3	50.4	62.9	89	1965	1	65.6	1971	28	1967	30	59.8	1984	96	32	.0	.1	30.0	.0	.7	.0
Oct	67.1	38.1	52.6	83	1985	13	59.3	1984	19+	1976	30	46.7	1988	391	5	.0	.0	30.4	.0	10.7	.0
Nov	57.6	31.0	44.3	77	1984	1	53.1	1985	4	1970	25	37.2	1976	621	0	.0	.0	23.8	.2	18.5	.0
Dec	48.6	24.4	36.5	72	1998	8	44.2	1971	-8	1983	25	28.6	1989	883	0	.0	.0	15.6	2.0	24.8	.3
Ann	65.0	39.1	52.0	93+	Aug 1983	22	72.9	Jul 1993	-20	Jan 1985	21	22.3	Jan 1977	5086	379	.0	1.1	301.9	8.7	135.1	2.1

<sup>+</sup> Also occurred on an earlier date(s)

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

Issue Date: February 2004 016-A

Elevation: 2,620 Feet Lat: 35°37N

- (2) Derived from station's available digital record: 1949-2001
- (3) Derived from 1971-2000 serially complete daily data

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>(1)</sup> From the 1971-2000 Monthly Normals

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**COOP ID: 311564** 

Station: CATALOOCHEE, NC

Climate Division: NC 1 NWS Call Sign: Elevation: 2,620 Feet Lat: 35°37N Lon: 83°06W

										Pı	recipi	tation	(incl	nes)										
	Me	ans/	P	recip	itatio	on Total						ays (3	5)	Proba	ability th		nonthly/	annual j	precipita ated am	ount	ies (1)		less tha	ın the
	Medi	ans(1)				Extremes	8			և	aily Pre	cipitatio	n		Th	ese value	s were det	ermined	from the i	incomplet	te gamma	distributi	on	
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	4.84	5.06	2.76	1954	21	8.83	1974	.83	1986	12.5	8.2	3.5	1.5	1.63	2.09	2.76	3.32	3.87	4.43	5.05	5.76	6.68	8.11	9.43
Feb	4.57	4.95	2.84	1990	16	9.06	1990	.46	1978	10.7	7.3	3.2	1.1	1.41	1.84	2.49	3.04	3.58	4.14	4.75	5.47	6.40	7.85	9.19
Mar	5.51	4.84	3.29	1975	30	12.31	1975	1.93	1985	12.8	8.4	3.7	1.4	2.02	2.54	3.28	3.90	4.49	5.10	5.76	6.52	7.50	9.00	10.38
Apr	4.30	4.13	3.50	1957	5	8.23	1998	1.24	1976	11.3	8.0	2.9	.8	1.75	2.15	2.71	3.16	3.60	4.04	4.51	5.06	5.75	6.81	7.77
May	4.85	4.43	3.02	1976	29	8.86	1974	1.83	1982	13.8	8.9	3.2	1.0	2.43	2.84	3.39	3.83	4.24	4.65	5.08	5.57	6.19	7.11	7.94
Jun	4.25	4.29	3.26	1967	4	7.28	1991	.71	1986	12.9	8.6	3.1	.8	1.42	1.82	2.41	2.91	3.39	3.89	4.43	5.07	5.88	7.14	8.31
Jul	4.58	4.27	2.85	1949	21	8.75	1984	1.73	1992	14.5	8.8	2.8	.9	2.01	2.42	2.99	3.45	3.89	4.33	4.80	5.34	6.02	7.06	8.00
Aug	4.52	4.75	2.97	1994	17	8.80	1992	.00	1998	12.4	8.2	3.0	.9	1.07	1.71	2.46	3.05	3.60	4.17	4.79	5.51	6.43	7.86	9.17
Sep	3.70	3.54	3.14	1977	8	8.14	1989	.34	1985	9.9	6.2	2.5	1.1	.77	1.11	1.65	2.14	2.64	3.17	3.77	4.49	5.45	6.97	8.41
Oct	2.81	2.79	2.40	1949	31	6.64	1972	.08	2000	8.4	5.2	1.7	.5	.51	.76	1.17	1.55	1.94	2.36	2.84	3.42	4.20	5.44	6.63
Nov	3.68	3.82	2.76	1991	22	6.02	1979	1.62	1997	9.9	6.5	2.5	1.0	1.90	2.20	2.61	2.94	3.24	3.54	3.85	4.21	4.66	5.33	5.92
Dec	4.27	4.61	3.50	1961	12	6.61	1990	1.38	1980	11.8	7.4	2.9	.9	1.71	2.10	2.66	3.12	3.56	4.00	4.48	5.03	5.73	6.80	7.77
Ann	51.88+	51.88+	3.50+	Dec 1961	12	12.31	Mar 1975	.00	Aug 1998	140.9	91.7	35.0	11.9	39.68	42.10	45.18	47.48	49.52	51.47	53.47	55.67	58.32	62.13	65.40

<sup>+</sup> Also occurred on an earlier date(s)

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

<sup>#</sup> Denotes amounts of a trace

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>\*\*</sup> Statistics not computed because less than six years out of thirty had measurable precipitation

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1949-2001

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**Station: CATALOOCHEE, NC** 

Climate Division: NC 1 NWS Call Sign: Elevation: 2,620 Feet Lat: 35°37N Lon: 83°06W

		Snow (inches)  Snow Totals  ms/Medians (1)  Extremes (2)																					
		Snow Fall Median   Snow Depth Median   Median   Median   Highest Daily Snow Fall   1.0   #   #   5.5   1982   27   6.0   1993   22   1993   15   3   1975   1982   1975   1982   1988   1.0   #   #   14.0   1993   13   22.0   1993   22   1993   15   3   1975   1988   1.0   #   #   14.0   1993   13   22.0   1993   22   1993   15   3   1975   19															Mea	n Nu	mber	of Day	<b>ys</b> (1)		
	Mean	s/Medi	ans (1)	)					Extre	mes (2)							ow Fa					Depth esholo	
Month	Snow Fall Mean	Fall	Depth	Depth	Daily Snow	Year	Day	Monthly Snow	Year	Daily Snow	Year	Day	Monthly Mean Snow	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	4.2	3.0	#	#	7.0	1987	22	13.0	1987	9	1988	8	2	1988	1.9	1.2	.5	.1	.0	2.7	1.0	.4	.0
Feb	2.4	1.0	#	#	5.5	1982	27	6.0	1976	6	1982	27	1	1986	1.5	.8	.3	.1	.0	1.4	.6	.2	.0
Mar	2.7	.0	#	#	14.0	1993	13	22.0	1993	22	1993	15	3	1975	.9	.5	.4	.2	.1	.4	.2	.1	.1
Apr	.9	.0	#	0	11.0	1987	3	16.0	1987	16	1987	4	2	1987	.3	.2	.1	.1	.1	.3	.2	.2	.1
May	.1	.0	#	0	1.0	1992	8	1.0	1992	1	1992	8	#	1992	.1	.1	.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	#	1989	20	#	1989	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.4	.0	#	0	3.8	1975	14	4.8	1975	4	1975	14	#+	1989	.2	.2	.1	.0	.0	.2	@	.0	.0
Dec	1.3	.0	#	0	7.0	1981	26	7.0	1981	7	1981	26	1	1989	1.5	.8	.2	.1	.0	1.5	.3	@	.0
Ann	12.0	4.0	N/A	N/A	14.0	Mar 1993	13	22.0	Mar 1993	22	Mar 1993	15	3	Mar 1975	6.4	3.8	1.6	.6	.2	6.5	2.3	.9	.2

<sup>+</sup> Also occurred on an earlier date(s) #Denotes trace amounts

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

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>-9/-9.9</sup> represents missing values Annual statistics for Mean/Median snow depths are not appropriate

<sup>(1)</sup> Derived from Snow Climatology and 1971-2000 daily data

<sup>(2)</sup> Derived from 1971-2000 daily data

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Climate Division: NC 1 NWS Call Sign: Elevation: 2,620 Feet Lat: 35°37N Lon: 83°06W

				Freez	ze Data				
			Spri	ng Freeze D	ates (Month	/Day)			
Temp (F)		P	robability of	later date i	n spring (thr	ru Jul 31) tha	n indicated(	(*)	
Temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	6/08	6/01	5/28	5/24	5/21	5/17	5/13	5/09	5/03
32	5/21	5/16	5/13	5/10	5/07	5/04	5/02	4/28	4/23
28	5/09	5/03	4/29	4/25	4/21	4/18	4/14	4/10	4/04
24	4/18	4/12	4/09	4/05	4/02	3/30	3/27	3/23	3/18
20	4/07	4/01	3/27	3/24	3/20	3/17	3/13	3/08	3/02
16	3/25	3/18	3/13	3/08	3/04	2/28	2/24	2/19	2/12
-		•	Fal	ll Freeze Da	tes (Month/I	Day)	•		•
Tomp (E)		Pro	bability of ea	arlier date i	n fall (beginr	ning Aug 1) t	han indicate	ed(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	9/16	9/21	9/24	9/27	9/30	10/02	10/05	10/09	10/13
32	9/25	9/29	10/02	10/04	10/06	10/08	10/11	10/13	10/17
28	10/04	10/08	10/11	10/14	10/16	10/18	10/21	10/24	10/28
24	10/15	10/21	10/25	10/29	11/02	11/05	11/09	11/13	11/19
20	10/28	11/04	11/08	11/12	11/16	11/20	11/24	11/28	12/05
16	11/12	11/20	11/25	11/30	12/05	12/09	12/14	12/19	12/27
•		•	•	Freeze F	ree Period		•		•
Tomp (E)			Probability	of longer th	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	158	149	142	137	131	126	120	114	104
32	168	162	158	155	151	148	144	140	134
28	197	190	185	181	177	173	169	164	157
24	229	223	219	216	212	209	206	202	196
20	263	255	250	245	240	236	231	225	217
16	304	294	287	281	275	269	263	255	245

<sup>\*</sup> 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.

Complete documentation available from:

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Climate Division: NC 1 NWS Call Sign: Elevation: 2,620 Feet Lat: 35°37N Lon: 83°06W

	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	971	792	657	408	201	50	6	10	96	391	621	883	5086		
60	816	652	504	264	98	9	0	0	30	254	473	728	3828		
57	728	568	416	186	55	2	0	0	12	185	387	635	3174		
55	671	512	360	141	34	1	0	0	6	146	333	575	2779		
50	527	379	231	58	7	0	0	0	1	71	209	432	1915		
32	148	47	11	0	0	0	0	0	0	0	8	75	289		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	200	178	377	582	843	1009	1160	1123	926	638	377	215	7628
55	9	0	12	33	164	320	447	410	242	71	12	2	1722
57	5	0	7	18	122	262	385	348	188	48	6	0	1389
60	0	0	2	7	73	178	292	255	116	24	2	0	949
65	0	0	0	0	21	69	143	109	32	5	0	0	379
70	0	0	0	0	4	12	39	21	3	0	0	0	79

										Gro	wing	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (N	Monthly)								Growi	ng Degre	ee Units (	(Accumu	lated Mo	nthly)			
	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	52	76	194	362	592	779	917	880	697	402	194	76	52	128	322	684	1276	2055	2972	3852	4549	4951	5145	5221
45	20	28	104	232	438	629	762	725	547	256	105	34	20	48	152	384	822	1451	2213	2938	3485	3741	3846	3880
50	1	7	43	129	291	479	607	570	399	143	43	10	1	8	51	180	471	950	1557	2127	2526	2669	2712	2722
55	0	0	5	61	162	331	452	415	256	60	9	0	0	0	5	66	228	559	1011	1426	1682	1742	1751	1751
60	0	0	0	15	71	188	299	260	134	11	0	0	0	0	0	15	86	274	573	833	967	978	978	978
Base	ase Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	<b>)/86</b> 39 75 160 259 373 499 609 572 437 287 150 64												39	114	274	533	906	1405	2014	2586	3023	3310	3460	3524

(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