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: 229003

Lon: 88°46W

Station: TUPELO RGNL AP, MS

Climate Division: MS 3 NWS Call Sign: TUP

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 50.3 30.5 40.4 80 1972 24 48.2 1990 -12 1966 30 28.9 1977 750 0 .0 .0 17.0 1.9 18.0 .2 Jan 23 56.0 33.5 44.8 84 1996 52.6 1990 4 1996 4 33.7 1978 559 1 .0 .0 20.2 .8 12.9 0. Feb Mar 64.8 41.4 53.1 88 1963 31 58.2 1974 7 1980 3 46.8 1971 368 14 .0 .0 28.5 .1 6.2 0. 93 23 1983 Apr 73.5 48.2 60.9 1987 21 66.6 1999 1973 11 55.3 160 50 .0. .3 29.9 .0 1.9 0. May 81.0 57.7 69.4 98 1977 30 75.0 1987 30 1976 4 63.4 1976 29 171 .0 2.8 31.0 .0 @ .0 22 41 72.0 13.6 88.0 65.7 76.9 101 +1964 81.5 1998 1966 1 1974 1 364 .2 30.0 .0 .0 .0 Jun Jul 91.4 80.6 105+ 14 84.6 50 1967 15 77.2 1972 488 1.0 21.8 31.0 .0 .0 69.8 1980 1986 0 .0 1992 90.9 68.2 79.6 106 +2000 28 83.5 2000 50 1967 28 76.0 0 453 1.5 20.7 31.0 .0 .0 .0 Aug 32 14 Sep 84.9 61.7 73.3 104 1980 16 78.6 1998 1967 29 68.2 1974 274 .4 8.9 30.0 .0 .0 .0 74.9 24 55.7 Oct 48.8 61.9 95+ 1963 12 69.0 1984 1980 31 1976 150 60 .0 .6 30.9 .0 1.7 .0 63.0 40.0 51.5 2000 59.1 1985 11 +1970 24 41.7 1976 400 8 .0 .0 26.9 .0 8.5 .0 Nov 86 1 Dec 53.6 33.2 43.4 79+ 1978 3 53.3 1984 -3 1989 23 33.9 2000 655 1 .0 .0 21.0 .9 14.9 .1 Aug Jul Jan Jan 72.7 49.9 61.3 106 +2000 28 1986 -12 1966 30 28.9 1977 3086 1884 3.1 68.7 327.4 3.7 64.1 .3 84.6 Ann

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

Issue Date: February 2004 062-A

(1) From the 1971-2000 Monthly Normals

Elevation: 361 Feet Lat: 34°16N

- (2) Derived from station's available digital record: 1962-2001
- (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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										Pı	recipi	tation	(incl	nes)										
		,	P	recip	itatio	on Total	S			M	ean N	Numbo Pays (3		Precipitation Probabilities (1) Probability that the monthly/annual precipitation will be equal to or less than the indicated amount										
		ans/				Extremes	5			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	5.14	4.41	3.75	1999	22	14.81	1974	.30	1986	10.8	7.7	3.5	1.6	1.15	1.62	2.38	3.05	3.73	4.45	5.26	6.23	7.51	9.54	11.45
Feb	4.68	4.12	4.53	1991	18	10.90	1991	1.20	1978	9.4	6.2	3.3	1.4	1.53	1.98	2.63	3.19	3.72	4.28	4.88	5.59	6.50	7.92	9.23
Mar	6.30	5.44	4.85	1997	2	17.20	1980	2.13	1985	11.0	8.1	4.0	2.0	2.00	2.60	3.48	4.24	4.97	5.73	6.56	7.53	8.79	10.74	12.55
Apr	4.94	4.58	4.36	1979	12	12.16	1991	.46	1986	9.2	6.6	3.5	1.8	.95	1.39	2.12	2.79	3.47	4.19	5.02	6.02	7.34	9.47	11.49
May	5.80	4.60	7.89	1991	26	17.96	1978	1.34	1992	10.4	7.3	3.5	1.8	1.19	1.71	2.57	3.34	4.13	4.97	5.92	7.06	8.56	10.97	13.26
Jun	4.82	4.47	3.67	1995	30	11.37	1997	.17	1988	9.7	6.9	3.4	1.4	.91	1.34	2.05	2.70	3.36	4.08	4.89	5.87	7.17	9.26	11.26
Jul	3.65	2.91	5.01	1963	17	10.00	1975	.48	1986	9.6	6.5	2.4	.8	.64	.96	1.49	1.99	2.50	3.06	3.69	4.46	5.48	7.12	8.70
Aug	2.67	2.18	3.08	1976	25	6.22	1985	.00	1983	7.2	4.8	1.8	.7	.30	.62	1.07	1.46	1.85	2.26	2.73	3.30	4.05	5.26	6.40
Sep	3.35	2.73	3.61	1979	13	8.09	1979	.05	1999	7.5	5.2	2.0	.9	.32	.55	1.01	1.47	1.98	2.56	3.24	4.09	5.26	7.20	9.11
Oct	3.38	3.28	4.44	1970	12	7.90	1984	.36	1989	6.9	4.9	2.3	1.1	.69	1.00	1.50	1.95	2.41	2.89	3.45	4.11	4.99	6.39	7.72
Nov	5.01	4.55	3.76	2001	29	9.64	1986	1.50	1985	9.2	6.9	3.4	1.6	1.72	2.19	2.88	3.47	4.03	4.60	5.23	5.97	6.91	8.37	9.71
Dec	6.12	4.93	5.62	1982	26	19.89	1982	.86	1980	10.7	7.8	3.9	2.0	1.37	1.94	2.84	3.64	4.45	5.31	6.27	7.43	8.94	11.36	13.63
Ann	55.86	54.37	7.89	May 1991	26	19.89	Dec 1982	.00	Aug 1983	111.6	78.9	37.0	17.1	38.12	41.51	45.87	49.20	52.17	55.06	58.05	61.36	65.40	71.28	76.39

⁺ 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: 1962-2001

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

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COOP ID: 229003

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Climate Division: MS 3 NWS Call Sign: TUP Elevation: 361 Feet Lat: 34°16N Lon: 88°46W

										Snov	v (incl	hes)													
						Sno	ow To	tals							Mean Number of Days (1)										
	Mean	s/Medi	ans (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	.9	.1	#	0	5.2	1988	6	7.2	1988	6	1988	7	1	1988	.8	.3	@	@	.0	.6	.3	.1	.0		
Feb	.6	.0	#	0	3.1	1985	1	5.3	1985	4+	1985	4	1	1985	.6	.3	@	.0	.0	.8	.1	.0	.0		
Mar	.1	.0	#	0	1.7	1984	10	1.7+	1993	1	1984	10	#	1984	.1	.1	.0	.0	.0	@	.0	.0	.0		
Apr	.0	.0	0	0	.4	1987	2	.4	1987	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	#	1999	.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	.1	1991	7	.1	1991	#+	1991	9	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
Dec	.2	.0	#	0	1.9	1983	16	2.2	1983	2	1983	17	#	1998	.4	.0	.0	.0	.0	.2	.0	.0	.0		
Ann	1.8	.1	N/A	N/A	5.2	Jan 1988	6	7.2	Jan 1988	6	Jan 1988	7	1+	Jan 1988	1.9	.7	@	@	.0	1.6	.4	.1	.0		

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

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

[@] 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	ru Jul 31) tha	n indicated	(*)							
temp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	5/02	4/27	4/23	4/19	4/16	4/13	4/10	4/06	4/01						
32	4/22	4/16	4/12	4/09	4/05	4/02	3/29	3/25	3/19						
28	4/08	4/01	3/26	3/22	3/17	3/13	3/08	3/03	2/23						
24	3/29	3/20	3/13	3/07	3/02	2/25	2/19	2/12	2/03						
20	3/11	3/03	2/25	2/20	2/15	2/11	2/06	1/31	1/22						
16	3/01	2/20	2/13	2/07	2/01	1/26	1/18	1/03	0/00						
		•	Fa	ll Freeze Da	tes (Month/D	Day)			•						
Temp (F)	Probability of earlier date in fall (beginning Aug 1) than indicated(*)														
remb (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	10/03	10/09	10/13	10/16	10/20	10/23	10/27	10/31	11/06						
32	10/09	10/16	10/21	10/25	10/28	11/01	11/05	11/10	11/16						
28	10/21	10/29	11/04	11/09	11/13	11/18	11/23	11/29	12/07						
24	10/30	11/09	11/17	11/23	11/29	12/05	12/12	12/20	12/30						
20	11/10	11/22	11/30	12/07	12/14	12/20	12/27	1/05	1/16						
16	11/30	12/10	12/17	12/23	12/30	1/06	1/14	1/30	0/00						
				Freeze F	ree Period										
Temp (F)			Probability	of longer th	an indicated	freeze free p	eriod (Days))							
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90						
36	213	204	197	191	186	180	174	168	158						
32	236	226	218	211	205	199	193	185	175						
28	278	265	256	248	240	233	225	216	203						
24	318	300	288	278	270	261	252	241	226						
20	345	328	317	307	299	290	281	271	256						
16	>365	>365	>365	353	332	319	309	298	285						

^{*} 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	750	559	368	160	29	1	0	0	14	150	400	655	3086		
60	618	434	246	74	12	0	0	0	3	85	284	525	2281		
57	532	357	181	40	5	0	0	0	1	51	216	440	1823		
55	476	308	144	24	2	0	0	0	0	35	177	385	1551		
50	348	202	71	5	0	0	0	0	0	11	98	265	1000		
32	60	15	0	0	0	0	0	0	0	0	2	28	105		

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	312	394	672	879	1166	1354	1512	1480	1251	937	597	392	10946
55	15	28	100	220	453	664	799	767	561	249	76	25	3957
57	9	19	73	176	392	604	737	705	502	201	55	17	3490
60	4	9	43	119	304	514	644	612	414	139	30	9	2841
65	0	1	14	50	171	364	488	453	274	60	8	1	1884
70	0	0	2	11	72	221	335	303	154	19	1	0	1118

	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	149	225	440	646	931	1123	1272	1244	1019	698	375	201	149	374	814	1460	2391	3514	4786	6030	7049	7747	8122	8323
45	81	137	304	497	776	973	1117	1089	869	543	252	111	81	218	522	1019	1795	2768	3885	4974	5843	6386	6638	6749
50	41	69	191	352	621	823	962	934	719	391	152	58	41	110	301	653	1274	2097	3059	3993	4712	5103	5255	5313
55	20	30	106	226	466	673	807	779	569	256	81	26	20	50	156	382	848	1521	2328	3107	3676	3932	4013	4039
60	0	7	44	127	315	523	652	624	421	144	36	4	0	7	51	178	493	1016	1668	2292	2713	2857	2893	2897
Base				Gro	wing De	gree Unit	s for Co	rn (Mont	hly)						Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	92	148	275	418	619	773	869	843	689	460	234	120	92	240	515	933	1552	2325	3194	4037	4726	5186	5420	5540

(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