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

Station: KEO, AR 1971-2000 COOP ID: 033862

Climate Division: AR 6 NWS Call Sign: Elevation: 230 Feet Lat: 34°36N Lon: 92°00W

					Temperature (°F) Extremes																
	Mea	n (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	49.1	32.0	40.6	81	1950	25	48.1	1990	-5	1962	11	30.2	1979	758	0	.0	.0	14.7	3.4	17.4	.1
Feb	55.6	36.4	46.0	83	1986	20	54.4	1976	-3	1951	2	33.8	1978	536	4	.0	.0	19.2	1.4	10.4	.0
Mar	64.4	44.1	54.3	91	1974	31	60.3	1974	12	1965	20	48.3	1996	344	11	.0	@	27.7	@	4.0	.0
Apr	73.6	52.2	62.9	93	1955	22	68.8	1981	29+	1950	15	56.2	1983	123	60	.0	.2	29.9	.0	.3	.0
May	81.1	61.2	71.2	96+	1951	30	75.9	1987	38	1954	4	66.0	1976	20	211	.0	1.5	31.0	.0	.0	.0
Jun	88.2	68.7	78.5	103	1954	28	82.4	1998	48+	1954	4	74.4	1974	0	402	.1	11.8	30.0	.0	.0	.0
Jul	91.3	71.9	81.6	106+	1954	13	86.6	1980	54+	1967	15	78.8	1989	0	515	1.1	20.6	31.0	.0	.0	.0
Aug	89.9	70.0	80.0	107+	1954	11	84.8	1980	50	1967	29	75.2	1992	0	465	.8	17.3	31.0	.0	.0	.0
Sep	83.8	63.4	73.6	103	1954	5	78.5	1998	34+	1949	30	68.2	1974	11	269	@	6.8	30.0	.0	.0	.0
Oct	74.9	52.5	63.7	94+	1953	1	69.6	1971	24	1952	29	58.0	1976	108	68	.0	.4	30.9	.0	.1	.0
Nov	61.8	43.4	52.6	88	1955	13	58.1	1973	15	1970	24	46.2	1976	379	5	.0	.0	25.6	@	4.9	.0
Dec	52.5	35.4	44.0	81	1951	31	53.1	1984	-4	1963	24	32.6	1983	653	0	.0	.0	17.9	1.8	13.3	@
Ann	72.2	52.6	62.4	107+	Aug 1954	11	86.6	Jul 1980	-5	Jan 1962	11	30.2	Jan 1979	2932	2010	2.0	58.6	318.9	6.6	50.4	.1

⁺ Also occurred on an earlier date(s)

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

Issue Date: February 2004 043-A

- (2) Derived from station's available digital record: 1948-2001
- (3) Derived from 1971-2000 serially complete daily data

[@] Denotes mean number of days greater than 0 but less than .05

⁽¹⁾ From the 1971-2000 Monthly Normals

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Station: KEO, AR

COOP ID: 033862

Climate Division: AR 6 NWS Call Sign: Elevation: 230 Feet Lat: 34°36N Lon: 92°00W

										Pı	ecipi	tation	(incl	nes)										
	Me	ans/	P	recipi	tatio	on Total					of D	Number (3))	Proba	ability th	nat the n	nonthly/	annual j indic	ated an	ntion wi			less tha	ın the
	Medi	ans(1)				Extremes	,			"	any 110	cipitatio	11		Th	ese value	s were det	ermined	from the	incomplet	te gamma	distributi	ion	
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	3.54	3.09	3.80	1975	10	7.12	1975	.35	1986	9.1	5.9	2.3	.9	.76	1.08	1.60	2.07	2.55	3.05	3.62	4.30	5.20	6.64	7.99
Feb	3.44	2.95	4.60	1965	11	11.13	1989	1.10	1999	8.0	5.5	2.7	.9	1.00	1.32	1.82	2.24	2.66	3.09	3.57	4.13	4.86	6.01	7.07
Mar	4.67	4.23	4.10	1948	22	10.68	1990	1.93	1982	9.2	7.1	3.3	1.4	1.74	2.18	2.80	3.32	3.82	4.33	4.88	5.52	6.33	7.59	8.74
Apr	5.09	4.41	6.00	1997	5	12.51	1997	.72	1987	8.6	6.4	3.4	1.4	1.02	1.48	2.23	2.91	3.60	4.35	5.18	6.19	7.53	9.67	11.70
May	4.77	4.09	9.45	1955	27	13.55	1979	1.56	1988	10.0	7.2	3.6	1.4	1.48	1.93	2.60	3.18	3.74	4.32	4.96	5.71	6.68	8.19	9.58
Jun	3.87	3.77	7.77	1989	3	14.87	1989	.40	1980	8.0	5.5	2.5	1.1	.61	.94	1.50	2.03	2.58	3.19	3.88	4.72	5.86	7.69	9.45
Jul	3.49	3.34	3.93	1976	30	8.40	1989	.02	1993	7.4	5.2	2.2	.9	.31	.55	1.01	1.50	2.03	2.63	3.35	4.25	5.50	7.57	9.61
Aug	1.95	1.75	4.75	1966	13	6.02	1971	.00	2000	5.6	3.6	1.1	.6	.06	.20	.47	.75	1.06	1.42	1.85	2.38	3.13	4.39	5.62
Sep	3.13	3.05	3.98	1978	13	6.39	1977	.37	1971	7.2	4.7	1.9	1.0	.70	.99	1.45	1.86	2.27	2.71	3.20	3.79	4.57	5.81	6.97
Oct	3.95	3.37	5.61	1990	9	13.10	1984	.64	2000	6.7	4.9	2.6	1.3	.66	1.00	1.58	2.12	2.68	3.28	3.98	4.82	5.95	7.77	9.52
Nov	4.97	4.44	4.31	2000	24	11.05	1987	1.12	1976	8.5	6.5	3.3	1.6	1.49	1.96	2.67	3.28	3.87	4.49	5.17	5.97	7.00	8.62	10.12
Dec	4.72	4.18	3.97	1971	9	12.32	1982	.60	1981	9.3	6.4	3.2	1.4	1.18	1.62	2.31	2.92	3.52	4.16	4.87	5.71	6.81	8.56	10.19
Ann	47.59	45.19	9.45	May 1955	27	14.87	Jun 1989	.00	Aug 2000	97.6	68.9	32.1	13.9	33.97	36.61	39.99	42.55	44.83	47.03	49.30	51.81	54.85	59.27	63.08

⁺ 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: 1948-2001

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

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Station: KEO, AR

Climate Division: AR 6 NWS Call Sign:

Elevation: 230 Feet Lat: 34°36N

COOP ID: 033862 Lon: 92°00W

										Snov	w (inc	hes)											
		Sansy Medians (1) Sansy Sansy															Mea	n Nu	mber	of Da	ys (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	2.6	1.0	#	#	7.0	1982	12	11.5	1988	10	1988	7	2	1988	1.3	.9	.3	.1	.0	2.4	.9	.4	@
Feb	1.4	.0	#	0	6.0	1997	13	7.0	1982	7	1985	4	2	1985	.7	.6	.3	.1	.0	.9	.4	.2	.0
Mar	.3	.0	#	0	3.0	1995	3	3.0	1995	#+	1995	3	#+	1995	.2	.2	@	.0	.0	.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	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.2	.0	#	0	2.0	1971	23	2.0	1971	#+	1980	27	#+	1980	.1	.1	.0	.0	.0	.0	.0	.0	.0
Dec	.2	.0	#	0	2.0	1998	23	2.0	1998	1+	1998	24	#+	1998	.2	.1	.0	.0	.0	.6	.0	.0	.0
Ann	4.7	1.0	N/A	N/A	7.0	Jan 1982	12	11.5	Jan 1988	10	Jan 1988	7	2+	Jan 1988	2.5	1.9	.6	.2	.0	3.9	1.3	.6	@

⁺ 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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COOP ID: 033862

Station: KEO, AR

Climate Division: AR 6

NWS Call Sign:

Elevation: 230 Feet

Lat: 34°36N Lon: 92°00W

				Freez	e Data				
			Spri	ng Freeze D	ates (Month/	Day)			
Temp (F)		P	robability of	later date in	n spring (thr	u Jul 31) tha	n indicated(*)	
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	4/15	4/11	4/07	4/05	4/02	3/31	3/28	3/25	3/20
32	4/05	3/31	3/27	3/24	3/21	3/18	3/14	3/11	3/05
28	3/22	3/14	3/09	3/05	3/01	2/24	2/20	2/15	2/08
24	3/10	3/03	2/25	2/21	2/17	2/12	2/08	2/03	1/26
20	3/08	2/25	2/16	2/09	2/03	1/27	1/20	1/12	1/01
16	2/19	2/10	2/04	1/29	1/23	1/17	1/09	12/26	0/00
•		_	Fal	l Freeze Dat	tes (Month/D	ay)			
To (E)		Pro	bability of ea	arlier date in	n fall (beginn	ing Aug 1) t	han indicate	d(*)	
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	10/17	10/22	10/25	10/29	11/01	11/03	11/07	11/10	11/15
32	10/28	11/03	11/06	11/10	11/13	11/16	11/19	11/23	11/28
28	11/07	11/13	11/18	11/22	11/26	11/29	12/03	12/08	12/14
24	11/13	11/24	12/02	12/08	12/14	12/20	12/27	1/03	1/14
20	11/25	12/07	12/16	12/24	12/31	1/07	1/15	1/24	2/06
16	12/10	12/19	12/26	1/01	1/06	1/13	1/20	2/04	0/00
		•		Freeze F	ree Period		•		
Tomn (F)			Probability	of longer tha	an indicated	freeze free p	eriod (Days)		
Temp (F)	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	228	222	218	215	212	208	205	201	195
32	259	251	246	241	236	232	227	221	213
28	298	288	281	275	269	264	257	250	240
24	336	322	312	304	297	290	283	274	262
20	>365	>365	346	331	321	313	304	295	283
16	>365	>365	>365	>365	352	340	330	321	309

^{*} 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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				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree 1	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	758	536	344	123	20	0	0	0	11	108	379	653	2932
60	608	406	216	51	4	0	0	0	1	41	247	509	2083
57	521	333	154	25	1	0	0	0	0	19	180	424	1657
55	464	287	120	14	0	0	0	0	0	10	142	370	1407
50	332	190	55	2	0	0	0	0	0	1	70	252	902
32	46	15	0	0	0	0	0	0	0	0	0	25	86

Base						Coolin	g Degree l	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	311	406	690	927	1214	1392	1538	1488	1249	982	617	395	11209
55	17	34	97	252	501	702	825	775	559	279	69	27	4137
57	12	24	70	202	439	642	763	713	499	226	47	19	3656
60	6	14	38	138	349	552	670	620	410	155	23	11	2986
65	0	4	11	60	211	402	515	465	269	68	5	0	2010
70	0	0	1	18	103	255	360	314	151	21	0	0	1223

										Gro	wing	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (M	(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	140	237	449	682	963	1152	1295	1244	1007	728	379	190	140	377	826	1508	2471	3623	4918	6162	7169	7897	8276	8466
45												100	73	217	527	1059	1867	2869	4009	5098	5955	6530	6781	6881
50	0 32 73 194 390 653 852 985 934 707 423 149											48	32	105	299	689	1342	2194	3179	4113	4820	5243	5392	5440
55	13	29	104	259	499	702	830	779	557	280	80	24	13	42	146	405	904	1606	2436	3215	3772	4052	4132	4156
60	0	7	50	146	344	552	675	624	411	159	37	3	0	7	57	203	547	1099	1774	2398	2809	2968	3005	3008
Base	Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Ur	its for C	orn (Acc	umulate	d Month	ly)		
50/86	0/86 76 134 261 425 645 805 897 861 689 455 209											99	76	210	471	896	1541	2346	3243	4104	4793	5248	5457	5556

(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