

Climatography of the United States

No. 20

1971-2000

Station: HERINGTON, KS

COOP ID: 143594

Climate Division: KS 5

NWS Call Sign:

Elevation: 1,350 Feet Lat: 38°40N

Lon: 96°57W

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	37.5	15.2	26.4	78	1990	10	36.4	1990	-19+	1985	12	11.8	1979	1198	0	.0	.0	7.7	9.9	28.9	3.2
Feb	44.9	20.9	32.9	82	1972	29	43.7	1976	-17+	1982	6	19.8	1979	898	0	.0	.0	11.5	5.8	22.9	2.0
Mar	55.0	30.6	42.8	88	1967	29	48.8	1986	-9+	1978	4	36.0	1984	688	0	.0	.0	21.8	1.2	16.1	.3
Apr	65.0	41.3	53.2	96	1989	23	61.8	1981	8	1975	3	45.9	1983	363	8	.0	.4	27.9	.1	5.3	.0
May	74.7	52.0	63.4	99	1998	31	68.9	1977	26	1976	3	57.4	1995	130	78	.0	1.1	30.9	.0	.4	.0
Jun	84.7	62.0	73.4	111+	1980	30	77.7	1980	38	1998	6	68.5	1992	11	261	.8	9.7	30.0	.0	.0	.0
Jul	90.5	67.2	78.9	111	1980	10	87.7	1980	44	1972	5	75.0	1971	0	429	3.7	19.5	31.0	.0	.0	.0
Aug	88.9	65.5	77.2	109+	1984	29	85.3	2000	45	1958	25	72.3	1992	7	384	3.0	17.1	31.0	.0	.0	.0
Sep	80.4	56.2	68.3	109	2000	3	75.1	1998	28+	1995	22	61.4	1974	62	161	.7	7.1	29.9	.0	.3	.0
Oct	68.8	43.5	56.2	95	1976	1	60.2	2000	11	1993	31	51.2	1976	283	8	.0	.6	29.9	@	3.9	.0
Nov	52.6	30.6	41.6	87	1980	8	50.9	1999	-4	1940	13	32.4	1991	702	0	.0	.0	19.1	1.2	16.6	.1
Dec	40.9	19.9	30.4	75+	1995	1	35.3	1991	-23	1989	22	13.6	1983	1073	0	.0	.0	9.0	5.9	27.5	1.5
Ann	65.3	42.1	53.7	111+	Jul 1980	10	87.7	Jul 1980	-23	Dec 1989	22	11.8	Jan 1979	5415	1329	8.2	55.5	279.7	24.1	121.9	7.1

+ 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: 1939-2001

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

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No. 20 1971-2000

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

Station: HERINGTON, KS

COOP ID: 143594

Climate Division: KS 5

NWS Call Sign:

Elevation: 1,350 Feet Lat: 38°40N

Lon: 96°57W

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	.99	.94	1.15	1980	19	2.48	1979	.00	1986	5.0	2.8	.5	.1	.09	.20	.36	.50	.65	.81	.99	1.22	1.51	2.00	2.46
Feb	1.21	1.22	2.56	1997	21	4.08	1997	.00	1991	4.8	2.8	.7	.2	.06	.17	.35	.53	.72	.93	1.18	1.49	1.91	2.61	3.29
Mar	2.97	2.78	2.02	1995	14	9.14	1973	.17	1997	7.6	5.4	2.4	.7	.48	.73	1.16	1.57	1.99	2.45	2.98	3.62	4.48	5.88	7.21
Apr	3.30	3.39	3.60	1967	1	9.02	1999	.50	1992	8.8	6.3	2.5	.8	.67	.97	1.45	1.90	2.34	2.82	3.36	4.01	4.87	6.24	7.54
May	5.02	4.28	5.80	1971	22	11.92	1995	1.53	1980	10.6	8.0	3.7	1.7	1.77	2.24	2.93	3.51	4.06	4.62	5.24	5.96	6.88	8.30	9.61
Jun	4.86	4.76	5.00	1965	10	9.42	1979	.20	1980	8.6	6.3	3.4	1.7	1.11	1.57	2.28	2.92	3.55	4.23	4.99	5.89	7.08	8.97	10.76
Jul	4.00	3.43	5.50	1951	11	10.00	1993	.40	1975	8.0	6.1	2.8	1.4	.44	.74	1.30	1.86	2.45	3.12	3.91	4.88	6.21	8.41	10.55
Aug	3.81	4.05	3.75	1962	24	7.95	1996	.28	2000	7.3	5.4	2.6	1.3	.74	1.08	1.64	2.16	2.68	3.24	3.87	4.64	5.65	7.28	8.83
Sep	3.34	2.97	5.40	1945	28	8.65	1986	.35	1990	6.7	5.0	2.3	1.0	.64	.94	1.43	1.88	2.34	2.83	3.39	4.07	4.97	6.41	7.79
Oct	2.78	2.37	6.44	1967	7	8.85	1974	.14	1999	5.6	4.1	2.0	.8	.28	.48	.86	1.25	1.67	2.14	2.70	3.39	4.35	5.93	7.47
Nov	2.34	2.11	3.34	1999	23	5.89	1998	.00	1989	6.0	4.1	1.7	.6	.14	.38	.74	1.09	1.45	1.85	2.31	2.89	3.66	4.94	6.17
Dec	1.34	1.01	1.85	1944	4	4.15	1973	.00	1976	5.3	3.1	.8	.3	.10	.25	.46	.66	.86	1.09	1.34	1.65	2.07	2.76	3.41
Ann	35.96	36.32	6.44	Oct 1967	7	11.92	May 1995	.00+	Feb 1991	84.3	59.4	25.4	10.6	23.52	25.84	28.87	31.20	33.28	35.31	37.42	39.78	42.65	46.86	50.53

+ 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: 1939-2001

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

Complete documentation available from:
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Station: HERINGTON, KS

COOP ID: 143594

Climate Division: KS 5

NWS Call Sign:

Elevation: 1,350 Feet

Lat: 38°40N

Lon: 96°57W

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	8.4	5.5	2	1	11.0	1985	10	24.0	1979	15	1979	30	10	1979	3.2	2.5	1.0	.3	@	9.6	5.9	2.9	.1
Feb	5.8	3.0	1	#	15.0	1971	22	22.1	1971	16	1971	23	7	1979	2.0	1.7	.5	.3	.1	5.7	3.5	2.6	.9
Mar	3.9	1.0	#	#	8.0	1975	10	19.0	1984	10	1998	9	2	1998	1.6	1.3	.6	.2	.0	2.1	1.0	.5	@
Apr	1.1	.0	#	0	10.0	1983	4	14.0	1983	7	1983	4	1	1983	.4	.3	.1	.1	@	.4	.1	.1	.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	.1	.0	#	0	2.0	1976	27	2.0	1976	1	1996	22	#+	1997	.1	@	.0	.0	.0	.1	.0	.0	.0
Nov	2.2	1.0	#	#	8.0	1975	26	12.0	1972	8	1975	26	1	1992	1.1	.9	.3	.1	.0	1.0	.3	.1	.0
Dec	4.4	3.5	1	#	7.0	1987	15	15.0	1973	9	1983	29	4	1983	2.7	1.9	.5	.2	.0	4.9	2.0	.3	.0
Ann	25.9	14.0	N/A	N/A	15.0	Feb 1971	22	24.0	Jan 1979	16	Feb 1971	23	10	Jan 1979	11.1	8.6	3.0	1.2	.1	23.8	12.8	6.5	1.0

+ 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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Climate Division: KS 5

NWS Call Sign:

Elevation: 1,350 Feet

Lat: 38° 40N

Lon: 96° 57W

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	5/17	5/12	5/08	5/05	5/02	4/30	4/27	4/23	4/18
32	5/10	5/04	4/30	4/26	4/23	4/20	4/16	4/12	4/07
28	4/23	4/19	4/16	4/13	4/11	4/08	4/05	4/02	3/29
24	4/12	4/08	4/05	4/03	4/01	3/29	3/27	3/24	3/20
20	4/06	3/30	3/26	3/22	3/18	3/15	3/11	3/06	2/28
16	3/29	3/22	3/16	3/11	3/07	3/02	2/26	2/20	2/12
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	9/16	9/21	9/24	9/27	9/30	10/03	10/06	10/10	10/15
32	9/23	9/29	10/03	10/07	10/10	10/13	10/16	10/21	10/26
28	10/05	10/11	10/15	10/19	10/22	10/25	10/28	11/02	11/07
24	10/17	10/23	10/28	11/01	11/04	11/08	11/12	11/17	11/23
20	10/26	11/02	11/07	11/11	11/15	11/19	11/23	11/28	12/05
16	11/07	11/14	11/18	11/22	11/26	11/30	12/04	12/08	12/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	170	163	158	154	150	146	142	137	130
32	191	184	178	173	169	165	160	154	147
28	211	205	200	197	193	190	186	182	176
24	239	231	226	221	217	213	208	203	196
20	268	258	252	246	241	236	230	223	214
16	293	283	276	269	263	257	251	244	233

* 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

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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	1198	898	688	363	130	11	0	7	62	283	702	1073	5415
60	1043	765	534	235	59	2	0	1	21	157	556	918	4291
57	950	686	448	170	32	0	0	0	9	99	472	825	3691
55	889	634	390	133	20	0	0	0	5	69	417	764	3321
50	740	508	260	62	5	0	0	0	0	24	293	617	2509
32	282	174	24	0	0	0	0	0	0	0	40	191	711

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	107	200	359	636	972	1240	1452	1400	1089	748	328	141	8672
55	2	16	12	79	279	550	739	687	404	104	16	1	2889
57	0	12	8	56	229	490	677	625	348	72	10	0	2527
60	0	7	1	30	163	402	584	533	270	37	4	0	2031
65	0	0	0	8	78	261	429	384	161	8	0	0	1329
70	0	0	0	1	28	144	281	249	83	1	0	0	787

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	26	81	227	454	758	1029	1226	1181	879	547	177	39	26	107	334	788	1546	2575	3801	4982	5861	6408	6585	6624
45	5	37	135	319	603	879	1071	1026	730	401	99	11	5	42	177	496	1099	1978	3049	4075	4805	5206	5305	5316
50	0	14	71	206	451	729	916	871	581	271	46	3	0	14	85	291	742	1471	2387	3258	3839	4110	4156	4159
55	0	2	32	114	306	579	761	716	437	160	18	0	0	2	34	148	454	1033	1794	2510	2947	3107	3125	3125
60	0	0	7	53	179	431	606	561	308	79	3	0	0	0	7	60	239	670	1276	1837	2145	2224	2227	2227
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	25	73	161	286	481	688	819	781	571	351	121	34	25	98	259	545	1026	1714	2533	3314	3885	4236	4357	4391

(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.

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| <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 |
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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