

Climatology of the United States

No. 20

1971-2000

Station: OSHKOSH, NE

COOP ID: 256385

Climate Division: NE 3

NWS Call Sign:

Elevation: 3,380 Feet Lat: 41°25N

Lon: 102°21W

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	37.1	8.2	22.7	75	1997	3	29.8	1983	-34+	1963	19	5.9	1979	1312	0	.0	.0	6.4	9.4	30.7	6.8
Feb	43.8	13.4	28.6	79	1962	11	36.6	1999	-29	1993	17	16.2	1993	1020	0	.0	.0	11.4	5.2	27.5	3.2
Mar	51.6	21.1	36.4	87	1943	29	42.4	1986	-29	1960	3	30.3	1987	888	0	.0	.0	18.6	2.3	26.4	1.1
Apr	61.6	30.4	46.0	95	1989	22	53.9	1981	-10	1936	2	40.4	1997	570	0	.0	.2	25.1	.4	15.8	.1
May	70.4	42.2	56.3	98+	1964	21	61.8	1977	14	1989	1	50.7	1995	283	13	.0	.7	30.5	.0	2.4	.0
Jun	81.8	52.5	67.2	109	1954	23	72.1	1988	29+	1989	15	61.9	1998	57	121	.6	7.0	29.9	.0	@	.0
Jul	88.6	58.4	73.5	111	1954	11	76.3	2000	34	1952	8	68.3	1992	4	266	2.0	14.7	31.0	.0	.0	.0
Aug	86.5	55.6	71.1	108	1954	3	76.3	1983	35+	1993	31	66.4	1992	16	204	.6	12.3	31.0	.0	.0	.0
Sep	78.1	44.7	61.4	101+	1983	2	68.0	1998	14	1984	29	57.1	1993	159	51	.1	4.4	29.5	.0	2.4	.0
Oct	66.3	31.0	48.7	94	1947	5	52.0	1974	-5	1991	31	45.0	1976	507	0	.0	.1	28.4	.2	14.8	.1
Nov	48.8	18.5	33.7	82+	1999	12	42.5	1999	-21	1916	13	22.5	1985	941	0	.0	.0	15.4	3.5	27.5	1.1
Dec	39.7	9.8	24.8	76	1980	27	33.1	1980	-30	1919	9	8.8	1983	1248	0	.0	.0	8.1	7.8	30.8	4.7
Ann	62.9	32.2	47.5	111	Jul 1954	11	76.3+	Jul 2000	-34+	Jan 1963	19	5.9	Jan 1979	7005	655	3.3	39.4	265.3	28.8	178.3	17.1

+ 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: 1913-2001

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

091-A

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: OSHKOSH, NE

COOP ID: 256385

Climate Division: NE 3

NWS Call Sign:

Elevation: 3,380 Feet Lat: 41°25N

Lon: 102°21W

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	.25	.25	1.18	1939	9	.61+	1994	.00+	1995	2.5	1.0	@	.0	.00	.00	.05	.09	.14	.19	.25	.32	.42	.57	.72
Feb	.35	.15	.90	1987	26	1.61	1987	.00+	1996	2.6	1.0	.1	.0	.00	.00	.03	.07	.12	.19	.28	.41	.59	.90	1.23
Mar	1.08	.98	2.08	1917	6	3.09	1973	.06	1976	4.6	2.7	.7	.2	.09	.17	.31	.46	.63	.81	1.04	1.32	1.70	2.35	2.99
Apr	1.79	1.71	3.09	1932	23	4.05	1977	.22	1989	6.3	4.0	1.3	.3	.33	.49	.75	.99	1.24	1.51	1.82	2.19	2.68	3.47	4.22
May	3.11	2.86	3.28	1991	16	7.58	1988	1.42	2000	9.4	5.9	2.0	.7	1.20	1.49	1.90	2.25	2.57	2.90	3.26	3.67	4.19	5.00	5.74
Jun	2.57	2.33	3.33	1966	8	5.25	1983	.17	1989	8.1	5.4	1.9	.5	.54	.78	1.15	1.50	1.84	2.21	2.62	3.12	3.77	4.82	5.81
Jul	2.67	2.66	4.12	1961	8	5.98	1985	.53	1998	7.1	4.8	1.9	.5	.66	.92	1.30	1.65	1.99	2.35	2.75	3.23	3.85	4.83	5.76
Aug	1.74	1.59	5.13	1968	14	4.21	1992	.33	1978	6.1	4.3	1.0	.2	.47	.63	.89	1.11	1.32	1.55	1.80	2.10	2.48	3.09	3.66
Sep	1.51	1.43	2.58	1951	1	5.08	1973	.10	1978	5.1	3.2	.9	.3	.18	.29	.50	.72	.94	1.19	1.48	1.84	2.33	3.14	3.93
Oct	1.02	.82	3.83	1994	7	5.54	1994	.00+	1999	3.9	2.2	.6	.2	.00	.06	.20	.35	.52	.72	.95	1.25	1.66	2.35	3.04
Nov	.63	.54	2.52	1922	4	1.94	1972	.00	1997	2.8	1.8	.4	.1	.02	.07	.16	.25	.35	.46	.60	.78	1.01	1.42	1.81
Dec	.33	.20	1.11	1913	5	1.49	1978	.00+	2000	2.4	1.0	.1	.0	.00	.01	.05	.10	.15	.22	.30	.40	.54	.79	1.04
Ann	17.05	17.53	5.13	Aug 1968	14	7.58	May 1988	.00+	Dec 2000	60.9	37.3	10.9	3.0	11.97	12.94	14.20	15.15	16.00	16.82	17.67	18.61	19.75	21.41	22.85

+ 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: 1913-2001

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

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

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151 Patton Avenue
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Station: OSHKOSH, NE

COOP ID: 256385

Climate Division: NE 3

NWS Call Sign:

Elevation: 3,380 Feet

Lat: 41°25N

Lon: 102°21W

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	4.4	4.0	2	1	10.0	1988	19	12.0	1994	10	1988	25	8	1988	2.2	1.9	.6	.1	@	11.3	7.2	3.6	.3
Feb	3.5	2.0	1	1	7.0	1992	17	17.0	1978	11	1993	26	6	1993	1.7	1.3	.5	.2	.0	6.3	3.7	1.5	.1
Mar	5.1	4.3	1	#	12.0	1980	28	18.8	1980	14	1980	29	2	1993	1.9	1.8	.7	.3	@	3.7	1.9	1.0	.2
Apr	2.3	.0	#	#	8.0	1986	4	12.0	1984	12	1980	2	2	1980	.7	.7	.3	.1	.0	.8	.5	.3	.1
May	.4	.0	0	0	6.0	1979	10	10.0	1979	0	0	0	0	0	.1	.1	.1	@	.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	.2	.0	#	0	4.0	1985	28	4.0	1985	4	1985	28	#	1985	.1	@	@	.0	.0	@	@	.0	.0
Oct	.7	.0	#	0	6.0	1973	11	6.0	1973	4	1997	27	1	1997	.3	.3	.2	@	.0	.3	.2	.0	.0
Nov	4.8	3.3	1	#	12.0	1972	1	21.5	1972	14	1972	2	5	1972	1.7	1.6	.8	.3	@	4.7	2.9	1.3	.6
Dec	4.0	3.0	1	#	7.0	1987	27	11.0	1973	12	1983	6	8	1985	2.0	1.7	.5	.2	.0	8.4	4.7	2.9	.4
Ann	25.4	16.6	N/A	N/A	12.0+	Mar 1980	28	21.5	Nov 1972	14+	Mar 1980	29	8+	Jan 1988	10.7	9.4	3.7	1.2	@	35.5	21.1	10.6	1.7

+ 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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No. 20 1971-2000

Station: OSHKOSH, NE

COOP ID: 256385

Climate Division: NE 3

NWS Call Sign:

Elevation: 3,380 Feet

Lat: 41° 25N

Lon: 102° 21W

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	6/04	5/30	5/26	5/23	5/20	5/17	5/14	5/10	5/04
32	5/23	5/19	5/15	5/12	5/10	5/07	5/04	5/01	4/26
28	5/14	5/09	5/06	5/03	5/01	4/28	4/25	4/22	4/17
24	5/04	4/29	4/26	4/23	4/20	4/18	4/15	4/11	4/07
20	4/27	4/22	4/18	4/15	4/12	4/09	4/06	4/02	3/28
16	4/15	4/09	4/05	4/01	3/28	3/25	3/21	3/17	3/11
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	9/08	9/12	9/15	9/17	9/19	9/22	9/24	9/27	10/01
32	9/13	9/17	9/19	9/22	9/24	9/26	9/29	10/01	10/05
28	9/19	9/23	9/27	9/30	10/03	10/05	10/08	10/12	10/17
24	9/29	10/04	10/08	10/11	10/14	10/17	10/20	10/23	10/28
20	10/04	10/09	10/13	10/16	10/19	10/22	10/26	10/29	11/04
16	10/13	10/19	10/23	10/26	10/30	11/02	11/05	11/09	11/15
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	140	133	129	125	122	118	114	110	104
32	156	149	144	140	137	133	129	124	117
28	172	166	162	158	154	151	147	143	136
24	196	189	184	180	176	172	168	163	156
20	214	206	200	195	190	185	180	174	165
16	241	232	225	220	215	209	204	197	188

* 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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Station: OSHKOSH, NE

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Climate Division: NE 3 NWS Call Sign: Elevation: 3,380 Feet Lat: 41°25N Lon: 102°21W

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	1312	1020	888	570	283	57	4	16	159	507	941	1248	7005
60	1157	880	733	423	162	17	0	3	74	353	791	1093	5686
57	1064	796	640	339	106	6	0	1	40	264	701	1000	4957
55	1002	740	578	285	76	3	0	0	24	208	641	938	4495
50	848	611	427	169	27	0	0	0	5	93	498	787	3465
32	356	217	56	3	0	0	0	0	0	0	115	312	1059

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	67	121	190	422	753	1054	1285	1211	882	516	164	87	6752
55	0	0	0	15	116	367	572	498	216	11	0	0	1795
57	0	0	0	8	84	310	510	437	172	5	0	0	1526
60	0	0	0	3	47	231	417	346	116	1	0	0	1161
65	0	0	0	0	13	121	266	204	51	0	0	0	655
70	0	0	0	0	2	48	134	93	16	0	0	0	293

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	2	31	101	271	562	839	1051	997	676	331	62	8	2	33	134	405	967	1806	2857	3854	4530	4861	4923	4931
45	0	7	41	164	408	689	896	842	530	204	21	0	0	7	48	212	620	1309	2205	3047	3577	3781	3802	3802
50	0	0	11	85	269	542	741	687	385	101	3	0	0	0	11	96	365	907	1648	2335	2720	2821	2824	2824
55	0	0	0	37	159	394	586	532	257	35	0	0	0	0	0	37	196	590	1176	1708	1965	2000	2000	2000
60	0	0	0	14	72	256	432	378	156	11	0	0	0	0	0	14	86	342	774	1152	1308	1319	1319	1319
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	22	60	116	219	357	534	675	639	443	272	87	34	22	82	198	417	774	1308	1983	2622	3065	3337	3424	3458

(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