

Climatography of the United States

No. 20

1971-2000

Station: RAWLINS AP, WY

COOP ID: 487533

Climate Division: WY10

NWS Call Sign: RWL

Elevation: 6,736 Feet Lat: 41° 48N

Lon: 107° 12W

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	33.4	12.5	23.0	56+	1981	23	30.2	1981	-36+	1973	4	10.6	1979	1304	0	.0	.0	.3	16.3	30.3	5.1
Feb	37.1	15.1	26.1	58	1962	11	33.2	2000	-36	1989	6	15.4	1989	1090	0	.0	.0	1.2	10.9	27.3	3.7
Mar	45.5	22.1	33.8	68+	1986	30	41.5	1986	-23	1998	8	28.9	1977	967	0	.0	.0	8.5	4.8	27.7	.7
Apr	55.1	28.0	41.6	77+	2000	28	48.0	1992	-11	1970	1	34.4	1973	703	0	.0	.0	18.8	1.3	20.9	.2
May	65.7	36.1	50.9	86	1954	20	55.7	2000	13	1990	9	44.4	1995	438	1	.0	.0	28.0	.0	8.4	.0
Jun	77.9	44.6	61.3	97	1954	23	68.1	1988	21	1951	3	55.8	1998	164	51	.0	.7	29.9	.0	1.0	.0
Jul	85.3	50.5	67.9	98+	1954	12	71.1	1988	32	1993	7	61.8	1993	34	124	.0	3.7	31.0	.0	@	.0
Aug	83.8	49.2	66.5	98	2000	2	71.0	2000	28	1962	31	62.8	1993	49	94	.0	1.8	31.0	.0	.0	.0
Sep	73.3	40.5	56.9	95	1998	4	63.1	1998	8	1985	30	52.6	1971	256	12	.0	.3	28.8	.1	5.0	.0
Oct	59.8	31.1	45.5	81+	1997	1	51.6	1988	-7	1972	31	38.5	1984	606	0	.0	.0	23.9	.8	16.3	.1
Nov	42.9	20.1	31.5	70+	1999	14	42.3	1999	-23	1991	2	21.2	2000	1005	0	.0	.0	7.3	8.2	26.0	1.6
Dec	34.6	13.5	24.1	57	1962	17	34.8	1980	-35+	1990	21	15.1	1978	1269	0	.0	.0	.9	15.4	29.5	4.4
Ann	57.9	30.3	44.1	98+	Aug 2000	2	71.1	Jul 1988	-36+	Feb 1989	6	10.6	Jan 1979	7885	282	.0	6.5	209.6	57.8	192.4	15.8

+ 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: 1951-2000

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

073-A

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No. 20

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

Station: RAWLINS AP, WY

COOP ID: 487533

Climate Division: WY10

NWS Call Sign: RWL

Elevation: 6,736 Feet Lat: 41°48N

Lon: 107°12W

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	.56	.49	.71	1980	29	1.90	1980	.09	1986	7.6	1.8	.1	.0	.13	.18	.26	.33	.40	.48	.57	.67	.81	1.03	1.24
Feb	.52	.46	.60	2000	17	1.61	2000	.08	1996	6.4	1.7	.2	.0	.09	.13	.21	.28	.35	.43	.52	.63	.78	1.02	1.24
Mar	.65	.55	1.08	1963	3	2.09	1998	.22+	1999	7.3	2.2	.1	.0	.18	.24	.34	.42	.50	.58	.67	.78	.92	1.15	1.35
Apr	1.06	1.11	1.15+	2000	15	2.49	1973	.08	1989	8.9	3.5	.4	.1	.22	.32	.47	.61	.76	.91	1.08	1.29	1.57	2.00	2.42
May	1.49	1.16	1.66	2000	17	4.12	1995	.03	1974	9.2	4.2	.6	.2	.19	.30	.51	.72	.94	1.18	1.47	1.82	2.29	3.07	3.83
Jun	.93	.95	1.04	1972	4	2.40	1998	.00	1981	5.3	2.5	.7	@	.02	.09	.21	.34	.49	.67	.87	1.14	1.51	2.13	2.74
Jul	.90	.90	1.60	1974	20	2.56	1981	.09	1994	6.7	2.6	.3	.1	.09	.15	.27	.40	.53	.68	.87	1.09	1.40	1.92	2.43
Aug	.81	.69	1.27	1977	18	2.08	1977	.09	1973	6.2	2.3	.3	@	.13	.20	.32	.43	.55	.67	.81	.99	1.22	1.60	1.96
Sep	.82	.72	2.06	1965	16	2.48	1982	.12	1977	6.1	2.5	.3	.0	.18	.25	.37	.48	.59	.71	.84	1.00	1.21	1.54	1.85
Oct	.86	.51	1.44	1980	15	3.14	1971	.02	1988	6.2	2.8	.4	.1	.04	.09	.19	.30	.44	.59	.79	1.04	1.39	2.00	2.61
Nov	.65	.62	.66	1979	20	2.04	1983	.03	1976	6.9	2.6	.1	.0	.10	.16	.25	.34	.44	.54	.65	.80	.99	1.30	1.60
Dec	.49	.45	.59	1958	12	1.34	1978	.03	1998	7.2	1.4	@	.0	.07	.11	.18	.25	.32	.40	.49	.60	.75	1.00	1.24
Ann	9.74	10.09	2.06	Sep 1965	16	4.12	May 1995	.00	Jun 1981	84.0	30.1	3.5	.5	6.87	7.43	8.14	8.68	9.16	9.63	10.11	10.64	11.28	12.22	13.03

+ 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

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Complete documentation available from:

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

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NWS Call Sign: RWL

Elevation: 6,736 Feet

Lat: 41°48N

Lon: 107°12W

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	9.0	9.3	3	2	19.0	1980	29	20.1	1975	28	1980	30	8+	1993	7.8	3.2	.8	.3	@	20.8	11.9	7.1	1.4
Feb	7.7	7.0	2	1	16.0	2000	17	24.1	1989	24	1980	1	8	1980	5.8	3.0	.6	.2	@	16.5	8.6	4.3	1.3
Mar	8.3	6.7	1	1	7.0	1987	20	15.6	1980	10+	1998	9	3	1998	7.7	3.0	.4	.1	.0	8.3	2.5	1.1	.1
Apr	7.3	6.0	#	1	10.1	1973	19	31.6	1973	10	1973	21	2	1973	5.3	2.4	.5	.2	@	4.2	1.0	.5	@
May	1.6	.1	#	0	6.0	1978	17	10.2	1978	5	1978	18	#	2000	1.2	.6	.1	@	.0	.6	.2	@	.0
Jun	.3	.0	#	0	4.0	1974	8	4.0	1974	1	1976	14	#	2000	.1	.1	.1	.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	.8	.0	#	0	7.2	2000	22	7.2	2000	9	2000	22	1	2000	.6	.2	.2	.1	.0	.2	.1	@	.0
Oct	4.2	2.2	#	0	16.0	1971	28	31.8	1971	21+	1971	31	2	1971	2.2	1.2	.3	.2	.1	1.6	.7	.4	.2
Nov	9.7	8.3	1	1	10.8	1979	20	35.6	1983	16	1983	29	5	1979	6.0	3.2	.8	.3	@	11.2	4.6	1.8	.6
Dec	8.4	5.7	2	1	11.5	1987	23	22.2	1978	15	1983	5	8	1983	7.8	3.2	.5	.2	@	17.4	7.9	3.4	.5
Ann	57.3	45.3	N/A	N/A	19.0	Jan 1980	29	35.6	Nov 1983	28	Jan 1980	30	8+	Jan 1993	44.5	20.1	4.3	1.6	.1	80.8	37.5	18.6	4.1

+ 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

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Lat: 41° 48N

Lon: 107° 12W

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	6/30	6/24	6/21	6/17	6/14	6/11	6/08	6/04	5/30
32	6/21	6/14	6/09	6/05	6/01	5/28	5/23	5/18	5/11
28	6/07	5/31	5/26	5/22	5/18	5/14	5/10	5/05	4/28
24	5/13	5/08	5/04	5/01	4/28	4/25	4/22	4/19	4/14
20	5/04	4/29	4/25	4/23	4/20	4/17	4/14	4/11	4/06
16	4/27	4/21	4/16	4/12	4/08	4/04	3/31	3/26	3/19
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	8/25	8/30	9/03	9/05	9/08	9/11	9/14	9/17	9/22
32	9/10	9/13	9/15	9/16	9/18	9/19	9/21	9/22	9/25
28	9/12	9/16	9/19	9/21	9/23	9/26	9/28	10/01	10/05
24	9/16	9/22	9/26	9/29	10/03	10/06	10/10	10/14	10/20
20	9/25	10/02	10/07	10/11	10/16	10/20	10/24	10/29	11/06
16	10/06	10/13	10/17	10/21	10/25	10/29	11/02	11/07	11/13
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	105	98	93	89	85	81	77	72	65
32	131	123	118	113	108	104	99	93	85
28	153	144	138	133	128	123	118	112	103
24	183	174	168	162	157	152	146	139	130
20	205	196	189	183	178	173	167	160	151
16	232	221	213	206	200	193	186	179	167

* 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	1304	1090	967	703	438	164	34	49	256	606	1005	1269	7885
60	1149	950	812	554	293	80	6	10	141	452	855	1114	6416
57	1056	866	719	469	214	46	2	3	88	362	765	1021	5611
55	994	810	657	413	168	30	0	1	61	304	705	959	5102
50	839	670	505	283	80	8	0	0	18	179	559	804	3945
32	323	214	86	25	0	0	0	0	0	5	145	288	1086

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	43	48	142	313	586	877	1113	1069	746	422	130	42	5531
55	0	0	0	10	41	217	401	357	117	8	0	0	1151
57	0	0	0	6	25	173	340	297	84	4	0	0	929
60	0	0	0	1	11	118	251	211	47	1	0	0	640
65	0	0	0	0	1	51	124	94	12	0	0	0	282
70	0	0	0	0	0	15	42	26	2	0	0	0	85

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	0	0	30	121	331	621	851	808	494	201	31	2	0	0	30	151	482	1103	1954	2762	3256	3457	3488	3490
45	0	0	3	54	199	475	696	653	352	102	5	0	0	0	3	57	256	731	1427	2080	2432	2534	2539	2539
50	0	0	0	18	100	330	541	498	226	38	0	0	0	0	0	18	118	448	989	1487	1713	1751	1751	1751
55	0	0	0	1	36	203	387	343	121	9	0	0	0	0	0	1	37	240	627	970	1091	1100	1100	1100
60	0	0	0	0	3	98	237	194	43	0	0	0	0	0	0	0	3	101	338	532	575	575	575	575
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	0	0	26	103	224	405	550	519	326	148	20	0	0	0	26	129	353	758	1308	1827	2153	2301	2321	2321

(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 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.

- | | |
|---|---|
| <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