

Climatography of the United States

No. 20

1971-2000

Station: NEWPORT ROSE, RI

COOP ID: 375215

Climate Division: RI 1

NWS Call Sign:

Elevation: 15 Feet

Lat: 41° 30N

Lon: 71° 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	38.4	22.6	30.5	65	1967	24	36.6	1990	-9	1982	18	22.9	1981	1070	0	.0	.0	4.1	7.6	25.3	.6
Feb	38.9	23.3	31.1	65	1976	27	37.7	1998	-3	1979	11	22.4	1979	949	0	.0	.0	3.4	5.7	22.6	.3
Mar	45.7	30.5	38.1	78	1998	29	42.8	1973	3	1980	2	33.7	1984	834	0	.0	.0	10.3	.9	17.9	.0
Apr	54.2	38.9	46.6	86	1976	19	50.0	1976	10	1982	6	42.8	1972	554	0	.0	.0	24.1	.1	4.7	.0
May	63.5	48.3	55.9	89	1965	26	58.7	1991	25	1985	4	52.4	1994	283	1	.0	.0	30.7	.0	.2	.0
Jun	71.7	57.5	64.6	93+	1963	27	67.4	1999	37	1991	6	61.4	1982	59	47	.0	.2	30.0	.0	.0	.0
Jul	77.6	64.3	71.0	96+	1981	9	73.3	1999	41+	1963	12	67.7	1978	1	186	.0	.7	31.0	.0	.0	.0
Aug	77.1	64.5	70.8	98	1975	2	73.9	1990	41	1965	31	66.6	1982	5	185	.0	.4	31.0	.0	.0	.0
Sep	71.3	58.2	64.8	93	1983	7	68.2	1999	35	1965	28	62.0	1978	60	53	.0	.1	30.0	.0	.0	.0
Oct	62.0	47.7	54.9	81+	1959	4	59.5	1990	26	1966	31	50.8	1988	318	3	.0	.0	30.3	.0	.5	.0
Nov	52.4	38.1	45.3	75	1983	6	50.0	1975	11+	1987	21	40.8	1976	593	0	.0	.0	20.3	.1	7.0	.0
Dec	43.4	28.7	36.1	69	1998	5	41.8	1998	-5	1980	26	23.7	1989	898	0	.0	.0	8.6	3.6	20.6	.1
Ann	58.0	43.6	50.8	98	Aug 1975	2	73.9	Aug 1990	-9	Jan 1982	18	22.4	Feb 1979	5624	475	.0	1.4	253.8	18.0	98.8	1.0

+ 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: 1957-2001

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

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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: NEWPORT ROSE, RI

COOP ID: 375215

Climate Division: RI 1

NWS Call Sign:

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Lat: 41°30N

Lon: 71°21W

Precipitation (inches)

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	4.23	3.71	2.65	1979	25	11.81	1979	1.00	1981	10.8	7.1	2.9	1.4	1.29	1.69	2.29	2.81	3.31	3.83	4.40	5.07	5.94	7.30	8.55
Feb	3.54	3.24	2.75	1998	18	6.53	1988	.87	1987	9.3	6.2	2.7	.8	1.24	1.58	2.06	2.47	2.86	3.26	3.69	4.20	4.85	5.86	6.78
Mar	4.51	3.73	4.42	1980	22	9.51	1980	1.17	1981	11.4	7.4	3.2	1.3	1.62	2.04	2.65	3.17	3.66	4.17	4.72	5.36	6.17	7.44	8.59
Apr	4.29	4.48	3.78	1991	21	10.54	1983	1.19	1985	10.9	6.7	2.9	1.4	1.42	1.83	2.42	2.93	3.42	3.92	4.47	5.12	5.95	7.23	8.42
May	3.52	3.05	4.87	1984	31	8.99	1984	1.29	1993	11.4	7.2	2.4	.7	1.25	1.58	2.06	2.47	2.85	3.25	3.68	4.18	4.82	5.81	6.72
Jun	3.11	2.70	3.20	1998	14	9.26	1982	.16	1999	9.7	5.7	1.7	.9	.42	.67	1.12	1.55	2.00	2.51	3.09	3.80	4.76	6.34	7.86
Jul	3.01	2.40	3.21	1989	17	6.47	1973	.89	1991	8.8	5.5	1.9	.8	.75	1.03	1.47	1.86	2.24	2.65	3.11	3.65	4.35	5.47	6.52
Aug	3.72	2.84	6.30	1992	10	12.91	1985	.46	1993	8.8	5.8	2.2	.9	.62	.94	1.48	1.99	2.52	3.09	3.74	4.53	5.59	7.31	8.96
Sep	3.57	3.34	7.81	1960	20	7.94	1996	.64	1980	9.0	6.0	2.4	1.0	.94	1.27	1.79	2.25	2.69	3.16	3.69	4.31	5.12	6.39	7.59
Oct	3.71	3.58	3.36	1996	20	7.91	1999	.65	1994	8.7	6.1	2.5	1.0	1.25	1.60	2.12	2.55	2.97	3.40	3.87	4.42	5.12	6.21	7.21
Nov	4.47	4.12	3.96	1969	3	9.85	1983	.89	1976	10.1	6.7	2.9	1.5	1.26	1.69	2.33	2.89	3.43	4.00	4.63	5.37	6.33	7.85	9.25
Dec	4.32	3.80	3.13	1973	17	8.02	1981	.91	1985	11.2	7.5	3.0	1.0	1.26	1.67	2.29	2.82	3.34	3.88	4.48	5.19	6.10	7.53	8.85
Ann	46.00	45.14	7.81	Sep 1960	20	12.91	Aug 1985	.16	Jun 1999	120.1	77.9	30.7	12.7	34.69	36.93	39.77	41.90	43.79	45.60	47.47	49.52	51.99	55.55	58.60

+ 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: 1957-2001

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

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Station: NEWPORT ROSE, RI

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Climate Division: RI 1

NWS Call Sign:

Elevation: 15 Feet

Lat: 41°30N

Lon: 71°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	6.1	3.8	1	#	10.0	1982	15	19.4	1982	12	1996	12	4	1982	2.4	1.7	.9	.4	@	2.7	1.1	.2	.0
Feb	8.3	5.2	1	#	20.0	1978	7	28.0	1978	16	1994	12	5	1994	2.6	1.9	1.0	.6	.2	4.4	2.7	1.9	.7
Mar	4.3	2.0	#	0	10.0	1999	15	16.5	1996	10	1999	15	1	1999	1.3	1.0	.4	.3	@	1.7	.6	.4	.1
Apr	.6	.0	#	0	6.0	1997	1	8.0	1996	6	1997	1	#+	2000	.3	.2	.1	.1	.0	.2	.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	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	.5	.0	#	0	6.0	1989	23	6.0	1989	2	1986	20	#+	2000	.2	.2	.1	@	.0	.3	.0	.0	.0
Dec	3.2	1.5	#	0	11.0	1981	6	12.0	1995	6	1995	23	2	1995	1.1	.7	.4	.2	.0	1.4	.9	.6	.0
Ann	23.0	12.5	N/A	N/A	20.0	Feb 1978	7	28.0	Feb 1978	16	Feb 1994	12	5	Feb 1994	7.9	5.7	2.9	1.6	.2	10.7	5.4	3.2	.8

+ 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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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	5/11	5/07	5/04	5/01	4/28	4/24	4/20	4/15
32	5/06	4/30	4/26	4/23	4/20	4/16	4/13	4/09	4/03
28	4/19	4/13	4/10	4/06	4/03	3/31	3/28	3/24	3/18
24	4/08	4/03	3/31	3/28	3/25	3/22	3/19	3/16	3/11
20	3/28	3/23	3/20	3/16	3/13	3/11	3/07	3/04	2/27
16	3/25	3/17	3/12	3/07	3/03	2/26	2/22	2/16	2/09
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	10/09	10/14	10/18	10/21	10/23	10/26	10/29	11/02	11/07
32	10/23	10/28	10/31	11/03	11/06	11/09	11/12	11/16	11/21
28	11/05	11/10	11/13	11/16	11/19	11/22	11/25	11/28	12/03
24	11/14	11/19	11/23	11/26	11/29	12/02	12/05	12/09	12/14
20	11/23	11/29	12/03	12/06	12/10	12/13	12/17	12/21	12/27
16	12/02	12/08	12/12	12/16	12/19	12/22	12/26	12/30	1/05
Freeze Free Period									
Temp (F)	Probability of longer than indicated freeze free period (Days)								
	.10	.20	.30	.40	.50	.60	.70	.80	.90
36	202	192	186	180	175	170	164	157	148
32	225	216	210	205	200	195	190	184	175
28	252	244	238	234	229	225	220	214	206
24	269	262	257	252	248	244	239	234	227
20	296	287	281	276	271	266	260	254	246
16	320	310	303	296	291	285	279	271	261

* 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

Complete documentation available from:

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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	1070	949	834	554	283	59	1	5	60	318	593	898	5624
60	915	809	679	404	143	10	0	0	12	181	443	743	4339
57	822	725	586	314	79	2	0	0	3	115	354	650	3650
55	760	669	524	256	48	0	0	0	1	80	296	588	3222
50	605	529	369	128	8	0	0	0	0	24	168	444	2275
32	148	116	21	0	0	0	0	0	0	0	3	77	365

Base	Cooling Degree Days (1)												
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	102	91	210	436	741	978	1207	1203	983	708	400	202	7261
55	0	0	0	2	76	288	494	490	294	75	3	0	1722
57	0	0	0	1	45	230	432	428	236	48	1	0	1421
60	0	0	0	0	16	148	339	335	155	21	0	0	1014
65	0	0	0	0	1	47	186	185	53	3	0	0	475
70	0	0	0	0	0	6	60	69	8	0	0	0	143

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	22	20	66	224	509	754	969	965	749	472	203	55	22	42	108	332	841	1595	2564	3529	4278	4750	4953	5008
45	0	0	18	105	354	604	814	810	599	317	104	17	0	0	18	123	477	1081	1895	2705	3304	3621	3725	3742
50	0	0	4	36	211	454	659	655	449	184	42	1	0	0	4	40	251	705	1364	2019	2468	2652	2694	2695
55	0	0	0	8	89	304	504	500	301	84	7	0	0	0	0	8	97	401	905	1405	1706	1790	1797	1797
60	0	0	0	1	29	169	349	346	166	24	0	0	0	0	0	1	30	199	548	894	1060	1084	1084	1084
Base	Growing Degree Units for Corn (Monthly)												Growing Degree Units for Corn (Accumulated Monthly)											
50/86	1	5	29	100	257	461	654	652	456	235	83	18	1	6	35	135	392	853	1507	2159	2615	2850	2933	2951

(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.

- 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
- 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
- c. Snow Tables
 - 1. Snow Climatology
 - 2. Cooperative Summary of the Day
- d. 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