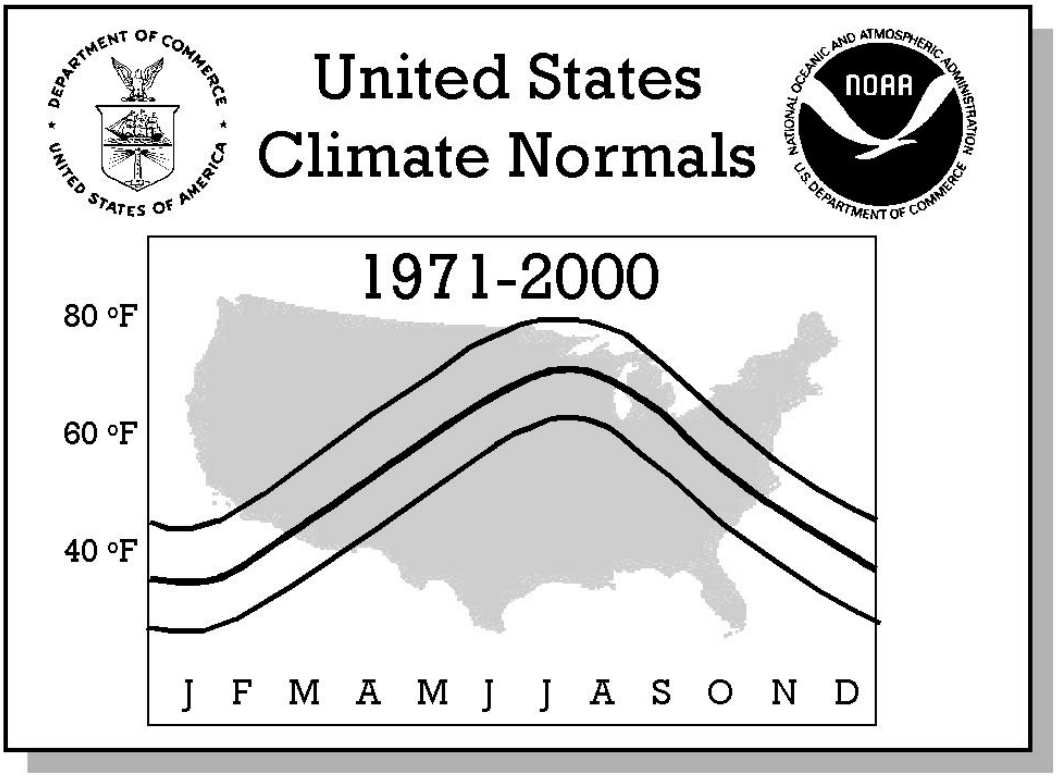
HISTORICAL CLIMATOGRAPHY SERIES NO. 5-1

State, Regional, And National Monthly Heating Degree Days

Weighted By Population (2000 Census)

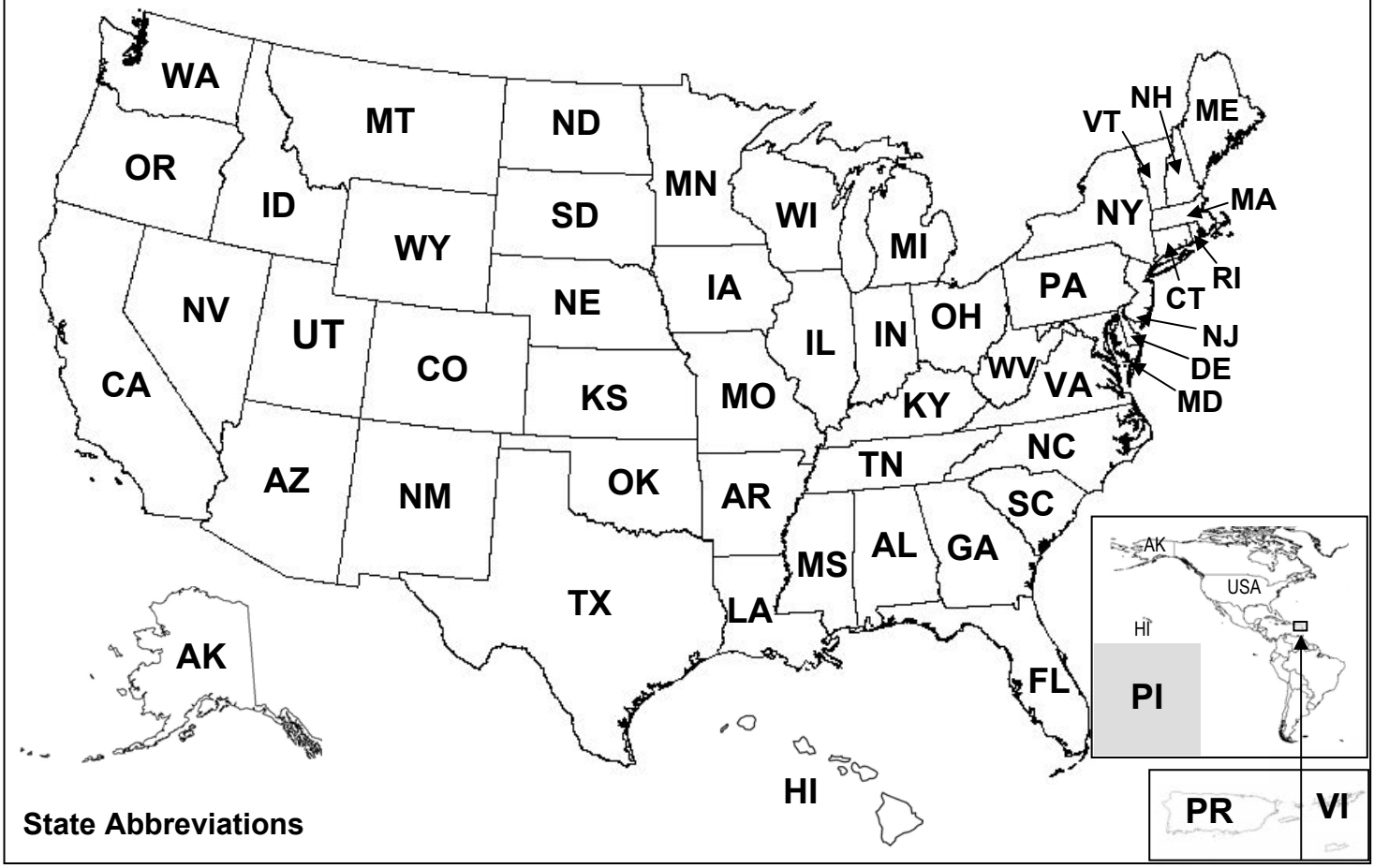
1971 – 2000 (and previous normals periods)



NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE
NATIONAL CLIMATIC DATA CENTER
ASHEVILLE, NC

Historical Climatography Series: Normals (Present Series Highlighted):

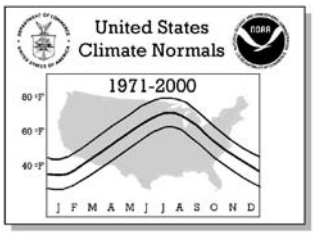
HCS 4-1: Area-Weighted Temperature
HCS 4-2: Area-Weighted Precipitation
HCS 4-3: Area-Weighted Seasonal Temperature and Precipitation
HCS 5-1: Population-Weighted Heating Degree Days
HCS 5-2: Population-Weighted Cooling Degree Days



State Abbreviations

State Identification Codes (Code/State Name/Abbreviation)

01 Alabama AL	16 Louisiana LA	31 North Carolina NC	46 West Virginia WV
02 Arizona AZ	17 Maine ME	32 North Dakota ND	47 Wisconsin WI
03 Arkansas AR	18 Maryland MD	33 Ohio OH	48 Wyoming WY
04 California CA	19 Massachusetts MA	34 Oklahoma OK	50 Alaska AK
05 Colorado CO	20 Michigan MI	35 Oregon OR	51 Hawaii HI
06 Connecticut CT	21 Minnesota MN	36 Pennsylvania PA	66 Puerto Rico PR
07 Delaware DE	22 Mississippi MS	37 Rhode Island RI	67 Virgin Islands VI
08 Florida FL	23 Missouri MO	38 South Carolina SC	91 Pacific Islands PI
09 Georgia GA	24 Montana MT	39 South Dakota SD	
10 Idaho ID	25 Nebraska NE	40 Tennessee TN	
11 Illinois IL	26 Nevada NV	41 Texas TX	
12 Indiana IN	27 New Hampshire NH	42 Utah UT	
13 Iowa IA	28 New Jersey NJ	43 Vermont VT	
14 Kansas KS	29 New Mexico NM	44 Virginia VA	
15 Kentucky KY	30 New York NY	45 Washington WA	



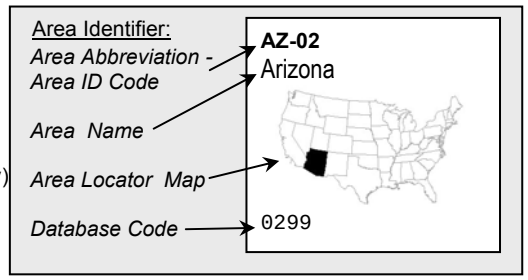
Heating Degree Days

NOTES

Product Description:
Historical Climatography Series (HCS) 4-1,2,3 and *5-1,2* include normals and standard deviations for the five 30-year normals periods and the 70-year period between 1931-2000 for U.S. States, regions, and the conterminous United States. Statistics are based on weighted divisional data from *Climatography of the United States, Number 85* for U.S. States, and in turn from these state values for regional and national computations. Two sets of regions are included: 1.) U.S. Census Bureau regions, excluding Hawaii and Alaska from the Western Region; and 2.) NCDC regions used for climate monitoring (Karl and Koss, 1984). HCS 4-1,2, and 3 provide area-weighted temperature and precipitation statistics, while HCS 5-1,2 provide population-weighted degree day statistics. Population weights are based on the 2000 U.S. Census. Both area and population weights are provided on pages 4 and 5.

The normals and standard deviations include values for each of the 12 calendar months and an annual value, plus 4 seasonal averages in HCS 4-3. The data are presented by abbreviation/name and number for a state, region, or the conterminous U.S. State data for the conterminous United States are presented alphabetically, followed by data for Alaska, Hawaii, Puerto Rico, the Virgin Islands, and Pacific trust territories, followed by regional/national data. Data elements include time of observation-corrected mean temperature (°F), precipitation (inches), and heating and cooling degree days (base 65 °F).

Abbreviations:
AVERAGE = Mean of Element for all Months (or Annual Values) for the Given Period of Record.
STD DEV = Standard Deviation for all Months (or Annual Values) for the Given Period of Record.
31-00 = 1931 through 2000 Long-Term Period of Record. **WIN** = Winter Season (Dec-Feb)
31-60 = 1931 through 1960 Normal Period of Record. **SPR** = Spring Season (Mar-May)
41-70 = 1941 through 1970 Normal Period of Record. **SUM** = Summer Season (Jun-Aug)
51-80 = 1951 through 1980 Normal Period of Record. **AUT** = Autumn (Fall) Season (Sep-Nov)
61-90 = 1961 through 1990 Normal Period of Record. **Temp** = Temperature (deg F)
71-00 = 1971 through 2000 Normal Period of Record. **Prcp** = Precipitation (inches)



Computational Procedures:
State, regional, and national values are derived from divisional data. Monthly divisional average temperature and total precipitation data are derived by giving equal weight to all stations reporting both temperature and precipitation within an area, except for Hawaii, where any available stations (including precipitation-only stations) are used. The number of reporting stations within a division varies from month-to-month and year-to-year. Station data are *not* adjusted for inhomogeneities.

Temperature (and, resultantly, degree day) values are corrected for time of observation in the conterminous U.S. In the conterminous U.S., observers at National Weather Service cooperative stations often take one observation per day, and the ending time of the climatological day can vary from station-to-station as well as year-to-year. Differences of the 24-hour period over which maximum and minimum temperature (as well as average temperature) is reported impact the calculated monthly mean temperature. These potential biases are rectified by adjusting for varying observation times using a model (Karl *et al*., 1986) to adjust the climate division averages so that stations end the climatological day at midnight (*i.e.,* climatological/calendar day coincide).

Monthly divisional temperature normals and 70-year averages are computed by adding the yearly values for a given month and then dividing by the number of years in the period. The annual normal and 70-year average are computed by adding all of the monthly normal or long-term average values and then dividing by 12. Precipitation normals and long-term means are computed in a similar manner, except for the annual, which is the sum of monthly values.

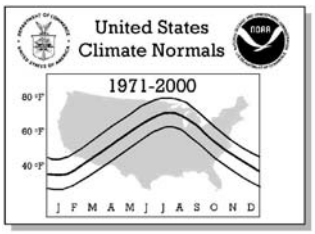
Sequential monthly degree days are derived using a modification of the Rational Conversion Formulae developed by Thom (1954, 1966). This technique utilizes the historical monthly average temperature and its corresponding standard deviation (over the standardizing period 1931-2000) to compute degree days. The modified Thom technique derives the monthly degree days using a spline fit of the monthly mean temperature and standard deviations to ameliorate the month-to-month step function that is inherent with only a single monthly input. The procedure for the computation of the divisional degree day normals involves i.) Calculation of the standard deviations of the temperatures for each of the 12 calendar months over the standardizing period; ii.) Use of the modified Thom technique to compute the heating and cooling degree days for every month and year in the period 1931-2000; and iii.) Calculation of the 30-year normals and 70-year (1931-2000) long-term averages of the degree days using the procedure discussed above. Standard deviations are computed using the sum and sum square values from the corresponding period of month-year sequential values. For annual temperature, the sum and sum square of the annual values are used, while for annual precipitation, the sum and sum square of monthly values are used.

Database Codes:
Database codes include four digits. The first two digits match the state identification codes listed on page 2 for U.S. States/Territories, or are assigned 56 for NCDC regions, 58 for U.S. Census regions, and 59 for the conterminous U.S. The second two digits are assigned 99 for U.S. States/Territories and the conterminous U.S., and the following values for regions:

U.S. Census Regions: 01=New England, 02=Middle Atlantic, 03=East North Central, 04=West North Central, 05=South Atlantic, 06=East South Central, 07=West South Central, 08=Mountain, 09=Pacific.
NCDC Regions: 01=Northeast, 02=East North Central, 03=Central, 04=Southeast, 05=West North Central, 06=South, 07=Southwest, 08=Northwest, 09=West.

References:
Karl, T.R., C.N. Williams, Jr., P.J. Young, and W.M. Wendland,1986: "A model to estimate the time of observation bias associated with monthly mean maximum, minimum, and mean temperatures for the United States," Journal of Climate and Applied Meteorology, Vol. 25, pp. 145-160.
Karl, T.R. and W.J. Koss, 1984: Historical Climatography Series 4-3: Regional and National Monthly, Seasonal and Annual Temperature Weighted by Area, 1895-1983, NOAA/NESDIS/NCDC.
Guttman, N.B. and R.G. Quayle, 1995: "A Historical Perspective of U.S. Climate Divisions", Bulletin of the American Meteorological Society, Statistical descriptors of climate, Bulletin of the American Meteorological Society, Vol. 77, no. 2, pp. 293-303.
NOAA, 2002: Hawaii Precipitation Frequency Study: Update of *Technical Paper No. 43*, NOAA/NWS/Office of Hydrology.
Thom, H.C.S., 1954: "The rational relationship between heating degree days and temperature," Monthly Weather Review, Vol. 82, pp. 1-6.
Thom, H.C.S., 1966: "Normal degree days above any base by the universal truncation coefficient," Monthly Weather Review, Vol. 94, pp. 461-465.

Release Date: August 15, 2002 **National Climatic Data Center/NESDIS/NOAA, Asheville, North Carolina**

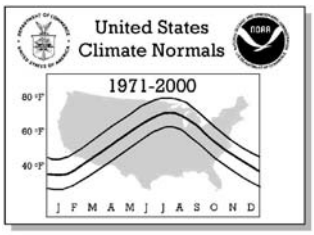


Heating Degree Days

Area and Population Weights (State in Region)

State Code	State Abbreviation	Area (sq. miles)	Census 2000 Population	U.S. Census Region‡	NCDC Region‡	Weights Within Region		
						Census Area	Census Pop	NCDC Area
01	AL	51,610	4,447,100	6	4	0.28363	0.26124	0.17577
02	AZ	113,909	5,130,632	8	7	0.13186	0.28233	0.26819
03	AR	53,104	2,673,400	7	6	0.12100	0.08502	0.09335
04	CA	158,693	33,871,648	9	9	0.49000	0.78430	0.58943
05	CO	104,246	4,301,261	8	7	0.12067	0.23669	0.24544
06	CT	5,009	3,405,565	1	1	0.07520	0.24461	0.02752
07	DE	2,057	783,600	5	1	0.00738	0.01514	0.01130
08	FL	58,560	15,982,378	5	4	0.21002	0.30872	0.19944
09	GA	58,876	8,186,453	5	4	0.21115	0.15813	0.20051
10	ID	83,557	1,293,953	8	8	0.09672	0.07121	0.33593
11	IL	56,399	12,419,293	3	3	0.22716	0.27504	0.18169
12	IN	36,291	6,080,485	3	3	0.14617	0.13466	0.11691
13	IA	56,288	2,926,324	4	2	0.10882	0.15211	0.22098
14	KS	82,264	2,688,418	4	6	0.15904	0.13975	0.14461
15	KY	40,395	4,041,769	6	3	0.22199	0.23743	0.13013
16	LA	48,522	4,468,976	7	6	0.11056	0.14212	0.08530
17	ME	33,215	1,274,923	1	1	0.49866	0.09157	0.18251
18	MD*	10,578	5,868,545	5	1	0.03794	0.11336	0.05812
19	MA	8,257	6,349,097	1	1	0.12396	0.45603	0.04537
20	MI	58,214	9,938,444	3	2	0.23447	0.22010	0.22854
21	MN	84,068	4,919,479	4	2	0.16253	0.25572	0.33004
22	MS	47,715	2,844,658	6	6	0.26222	0.16711	0.08388
23	MO	69,686	5,595,211	4	3	0.13473	0.29085	0.22449
24	MT	147,138	902,195	8	5	0.17032	0.04965	0.31307
25	NE	77,227	1,711,263	4	5	0.14930	0.08895	0.16432
26	NV	110,540	1,998,257	8	9	0.12796	0.10996	0.41057
27	NH	9,304	1,235,786	1	1	0.13968	0.08876	0.05112
28	NJ	7,836	8,414,350	2	1	0.07627	0.21210	0.04306
29	NM	121,666	1,819,046	8	7	0.14084	0.10010	0.28645
30	NY	49,576	18,976,457	2	1	0.48251	0.47833	0.27241
31	NC	52,712	8,049,313	5	4	0.18904	0.15549	0.17952
32	ND	70,665	642,200	4	5	0.13662	0.03338	0.15035
33	OH	41,222	11,353,140	3	3	0.16603	0.25143	0.13280
34	OK	69,920	3,450,654	7	6	0.15931	0.10974	0.12291
35	OR	96,981	3,421,399	9	8	0.29945	0.07922	0.38990
36	PA	45,334	12,281,054	2	1	0.44122	0.30957	0.24910
37	RI	1,214	1,048,319	1	1	0.01823	0.07530	0.00667
38	SC	31,055	4,012,012	5	4	0.11137	0.07750	0.10576
39	SD	77,047	754,844	4	5	0.14896	0.03924	0.16393
40	TN	42,244	5,689,283	6	3	0.23216	0.33422	0.13609
41	TX	267,340	20,851,820	7	6	0.60913	0.66312	0.46995
42	UT	84,916	2,233,169	8	7	0.09830	0.12289	0.19993
43	VT	9,610	608,827	1	1	0.14427	0.04373	0.05281
44	VA	40,816	7,078,515	5	4	0.14638	0.13673	0.13901
45	WA	68,192	5,894,121	9	8	0.21056	0.13648	0.27416
46	WV	24,180	1,808,344	5	3	0.08672	0.03493	0.07790
47	WI	56,154	5,363,675	3	2	0.22617	0.11877	0.22045
48	WY	97,914	493,782	8	5	0.11334	0.02717	0.20833

*Maryland includes area and population for the District of Columbia.
‡Region codes are defined on page 5.



Heating Degree Days

Area and Population Weights (Region in Nation)

U.S. Census Regions

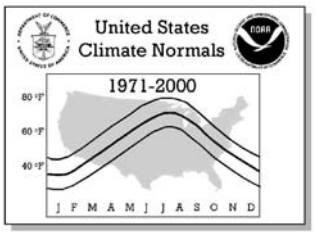
Region Code	Region Name	States Within Region	Area (sq. miles)	Census 2000 Population	Weights Within Nation^ Area	Weights Within Nation^ Population
01	New England	CT,ME,MA,NH,RI,VT	66,609	13,922,517	0.02204	0.04980
02	Middle Atlantic	NJ,NY,PA	102,746	39,671,861	0.03400	0.14190
03	East North Central	IL,IN,MI,OH,WI	248,280	45,155,037	0.08215	0.16151
04	West North Central	IA,KS,MN,MO,NE,ND,SD	517,245	19,237,739	0.17114	0.06881
05	South Atlantic	DE,FL,GA,MD*,NC,SC,VA,WV	278,834	51,769,160	0.09226	0.18517
06	East South Central	AL,KY,MS,TN	181,964	17,022,810	0.06021	0.06089
07	West South Central	AR,LA,OK,TX	438,886	31,444,850	0.14522	0.11247
08	Mountain	AZ,CO,ID,MT,NV,NM,UT,WY	863,886	18,172,295	0.28584	0.06500
09	Pacific (AK,HI Omitted)	CA,OR,WA	323,866	43,187,168	0.10716	0.15447

NCDC Regions

Region Code	Region Name	States Within Region	Area (sq. miles)	Census 2000 Population	Weights Within Nation^ Area
01	Northeast	CT,DE,ME,MD*,MA,NH,NJ,NY,PA,RI,VT	181,990	60,246,523	0.06022
02	East North Central	IA,MI,MN,WI	254,724	23,147,922	0.08428
03	Central	IL,IN,KY,MO,OH,TN,WV	310,417	46,987,525	0.10271
04	Southeast	AL,FL,GA,NC,SC,VA	293,629	47,755,771	0.09715
05	West North Central	MT,NE,ND,SD,WY	469,991	4,504,284	0.15551
06	South	AR,KS,LA,MS,OK,TX	568,865	36,977,926	0.18822
07	Southwest	AZ,CO,NM,UT	424,737	13,484,108	0.14053
08	Northwest	ID,OR,WA	248,730	10,609,473	0.08230
09	West	CA,NV	269,233	35,869,905	0.08908
	Conterminous United States		3,022,316	279,583,437	

*Maryland includes area and population for the District of Columbia.

^Nation refers to 48 conterminous United States.

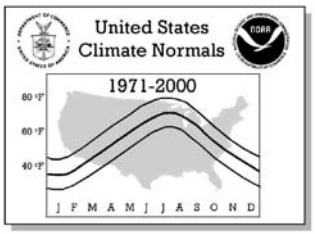


Population-Weighted Monthly Normals, 1971-2000 (and previous periods)
HISTORICAL CLIMATOGRAPHY SERIES 5-1

Heating Degree Days

Alabama – Connecticut

State/Region	Element	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANNUAL
AL-01 Alabama	31-00 AVERAGE	0	0	13	140	368	586	650	496	359	135	34	2	2783
	STD DEV	0	0	8	50	81	117	145	110	96	46	19	2	289
	31-60 AVERAGE	0	0	10	123	373	569	592	470	361	126	28	1	2652
	STD DEV	0	0	6	48	77	114	148	119	112	37	17	2	273
	41-70 AVERAGE	0	0	13	137	382	598	643	498	378	120	29	2	2800
	STD DEV	0	0	8	50	73	107	131	129	107	45	17	2	289
	51-80 AVERAGE	0	0	14	156	387	598	683	525	375	128	36	2	2903
	STD DEV	0	1	10	51	78	105	140	126	99	42	22	2	277
	61-90 AVERAGE	0	0	16	157	358	601	714	534	358	139	39	2	2919
	STD DEV	0	1	10	53	86	124	136	105	85	49	20	2	268
	71-00 AVERAGE	0	0	15	153	358	591	680	503	346	151	40	2	2840
0199	STD DEV	0	0	8	52	89	120	138	90	79	48	21	2	269
AZ-02 Arizona	31-00 AVERAGE	0	0	7	75	293	492	523	377	294	140	41	5	2248
	STD DEV	0	1	3	27	67	73	85	83	72	49	18	3	231
	31-60 AVERAGE	0	1	6	75	301	486	548	402	300	136	42	6	2301
	STD DEV	0	1	2	25	71	75	97	92	67	46	21	3	224
	41-70 AVERAGE	0	1	6	75	291	499	538	393	320	147	42	6	2319
	STD DEV	0	1	3	29	71	68	80	92	67	50	17	3	201
	51-80 AVERAGE	0	1	7	76	296	505	531	388	317	157	47	5	2329
	STD DEV	0	1	3	28	59	80	72	86	77	44	19	3	186
	61-90 AVERAGE	0	0	8	79	287	507	521	371	302	147	43	5	2270
	STD DEV	0	1	4	30	53	76	72	67	77	54	16	3	216
	71-00 AVERAGE	0	0	7	76	290	490	492	349	275	137	40	4	2160
0299	STD DEV	0	0	3	27	64	74	67	61	74	52	17	2	233
AR-03 Arkansas	31-00 AVERAGE	0	2	23	162	459	725	806	613	455	175	46	3	3469
	STD DEV	0	2	14	53	86	120	136	114	111	54	23	3	282
	31-60 AVERAGE	0	1	19	149	470	704	760	604	470	174	44	2	3399
	STD DEV	0	2	12	52	80	111	129	114	125	50	22	2	285
	41-70 AVERAGE	0	2	23	159	460	726	795	621	488	164	42	3	3482
	STD DEV	0	2	12	55	76	109	109	104	124	55	21	2	248
	51-80 AVERAGE	0	2	24	171	468	725	833	635	474	170	44	3	3549
	STD DEV	0	2	17	59	87	94	140	121	123	53	25	3	262
	61-90 AVERAGE	0	2	26	175	441	745	857	644	445	169	47	4	3557
	STD DEV	0	2	16	57	84	129	143	117	106	57	25	3	260
	71-00 AVERAGE	0	2	26	173	455	739	836	608	432	182	49	4	3505
0399	STD DEV	0	3	16	51	95	133	141	123	85	57	26	3	293
CA-04 California	31-00 AVERAGE	12	11	33	127	319	486	514	401	378	262	156	62	2762
	STD DEV	7	6	16	38	63	71	84	71	75	67	47	25	269
	31-60 AVERAGE	13	15	35	136	318	479	543	432	389	263	160	68	2853
	STD DEV	7	6	15	35	67	72	103	69	80	52	46	24	271
	41-70 AVERAGE	14	14	34	134	320	493	534	416	405	280	169	73	2886
	STD DEV	8	7	15	39	61	64	83	77	64	68	38	26	218
	51-80 AVERAGE	12	12	33	127	323	490	520	398	397	287	168	65	2831
	STD DEV	7	7	14	39	55	75	63	69	68	71	43	28	217
	61-90 AVERAGE	11	10	35	122	324	499	503	384	381	271	157	58	2754
	STD DEV	7	5	19	39	55	74	62	65	68	80	44	26	229
	71-00 AVERAGE	10	9	31	119	321	483	484	373	358	249	146	51	2634
0499	STD DEV	6	5	17	40	66	74	62	58	72	67	50	22	253
CO-05 Colorado	31-00 AVERAGE	28	52	230	544	916	1171	1237	1019	948	653	384	143	7324
	STD DEV	15	22	62	80	105	113	130	118	108	93	74	48	372
	31-60 AVERAGE	23	40	204	514	904	1131	1230	1030	962	637	372	132	7178
	STD DEV	13	15	48	69	102	104	140	139	101	93	78	51	363
	41-70 AVERAGE	28	51	229	528	899	1151	1233	1025	997	647	376	150	7312
	STD DEV	13	23	65	96	100	91	126	128	115	101	64	53	344
	51-80 AVERAGE	28	58	237	539	925	1168	1251	1021	983	667	387	141	7404
	STD DEV	14	24	70	90	95	118	129	116	113	86	70	51	373
	61-90 AVERAGE	31	63	253	565	920	1214	1260	1029	959	661	399	150	7505
	STD DEV	14	23	65	91	92	120	130	92	119	93	65	46	318
	71-00 AVERAGE	33	59	243	573	937	1200	1239	1005	910	665	399	145	7410
0599	STD DEV	16	22	58	56	113	120	120	99	85	96	72	45	372
CT-06 Connecticut	31-00 AVERAGE	5	18	115	404	693	1055	1180	1025	879	539	247	45	6205
	STD DEV	4	12	36	73	77	123	139	113	100	73	62	21	363
	31-60 AVERAGE	5	20	114	389	703	1074	1161	1033	902	549	251	47	6248
	STD DEV	3	14	36	72	77	118	142	120	117	83	58	24	378
	41-70 AVERAGE	6	22	116	385	695	1092	1197	1040	899	542	268	50	6311
	STD DEV	5	14	39	66	68	118	127	96	103	81	67	23	340
	51-80 AVERAGE	6	18	118	406	690	1066	1199	1039	887	535	260	50	6273
	STD DEV	5	12	41	71	74	120	120	107	86	69	69	22	322
	61-90 AVERAGE	5	17	119	413	681	1057	1213	1036	864	537	250	47	6238
	STD DEV	5	12	40	77	75	129	136	101	83	67	66	18	316
	71-00 AVERAGE	4	14	115	421	681	1018	1177	997	846	522	232	42	6068
0699	STD DEV	4	8	31	76	78	129	139	114	84	63	57	19	341

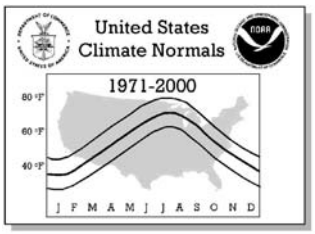


Population-Weighted Monthly Normals, 1971-2000 (and previous periods)
HISTORICAL CLIMATOGRAPHY SERIES 5-1

Heating Degree Days

Delaware – Indiana

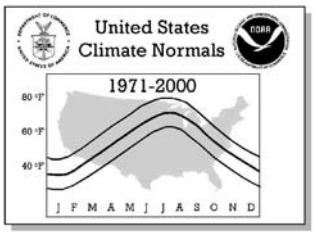
State/Region	Element	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANNUAL
DE-07 Delaware	31-00 AVERAGE	0	1	43	277	564	883	986	854	698	385	131	10	4832
	STD DEV	0	2	20	69	78	125	151	119	107	69	44	7	326
	31-60 AVERAGE	0	2	41	265	571	898	949	853	718	390	128	10	4825
	STD DEV	0	2	20	66	71	121	158	121	127	73	39	8	316
	41-70 AVERAGE	0	2	44	268	575	921	994	865	715	384	134	11	4913
	STD DEV	0	2	23	67	64	118	134	90	118	72	50	7	287
	51-80 AVERAGE	0	1	44	285	576	893	1019	876	709	378	137	12	4931
	STD DEV	0	1	22	69	77	122	123	120	99	73	49	8	279
	61-90 AVERAGE	0	1	45	287	555	883	1040	875	684	392	134	10	4907
	STD DEV	0	2	22	78	81	130	138	119	91	68	48	7	311
	71-00 AVERAGE	0	1	42	285	552	850	996	836	670	371	127	10	4740
0799	STD DEV	0	1	15	76	86	130	148	128	90	65	41	8	328
FL-08 Florida	31-00 AVERAGE	0	0	0	9	70	166	210	156	85	16	0	0	713
	STD DEV	0	0	0	5	29	59	73	61	38	10	1	0	145
	31-60 AVERAGE	0	0	0	9	73	164	198	149	88	16	0	0	695
	STD DEV	0	0	0	5	28	63	74	68	40	9	1	0	130
	41-70 AVERAGE	0	0	0	9	77	174	212	164	90	14	0	0	740
	STD DEV	0	0	0	4	32	57	60	72	41	10	0	0	148
	51-80 AVERAGE	0	0	0	11	75	179	223	176	86	15	0	0	765
	STD DEV	0	0	0	5	29	54	71	67	37	8	0	0	147
	61-90 AVERAGE	0	0	0	10	69	172	230	171	83	17	0	0	752
	STD DEV	0	0	0	6	31	60	78	60	36	10	1	0	163
	71-00 AVERAGE	0	0	0	10	60	160	213	154	78	18	1	0	694
0899	STD DEV	0	0	0	6	25	52	81	52	32	10	1	0	146
GA-09 Georgia	31-00 AVERAGE	0	0	13	144	373	603	654	512	375	148	39	3	2866
	STD DEV	0	0	8	47	81	113	140	104	95	46	21	3	286
	31-60 AVERAGE	0	0	10	129	381	594	600	490	383	138	31	2	2758
	STD DEV	0	0	6	42	75	114	140	112	111	38	17	2	264
	41-70 AVERAGE	0	0	14	142	390	622	648	519	398	135	35	3	2904
	STD DEV	0	0	9	47	73	103	124	119	107	48	20	3	293
	51-80 AVERAGE	0	0	14	157	389	616	686	542	393	143	42	5	2986
	STD DEV	0	0	9	47	75	102	137	116	97	44	23	4	270
	61-90 AVERAGE	0	0	16	159	364	613	716	545	373	153	46	5	2990
	STD DEV	0	0	9	54	85	116	134	101	81	49	21	3	280
	71-00 AVERAGE	0	0	15	154	358	598	680	511	358	159	46	4	2884
0999	STD DEV	0	0	7	51	87	114	137	88	80	48	23	4	271
ID-10 Idaho	31-00 AVERAGE	34	53	220	522	885	1156	1231	962	840	560	329	150	6943
	STD DEV	19	23	63	72	100	120	164	132	100	84	72	45	432
	31-60 AVERAGE	29	54	213	505	892	1124	1257	998	869	550	322	157	6971
	STD DEV	11	16	48	73	101	113	190	139	95	75	83	48	438
	41-70 AVERAGE	32	57	223	523	875	1138	1249	958	881	575	334	164	7008
	STD DEV	11	22	66	85	84	86	171	118	90	77	72	44	318
	51-80 AVERAGE	32	60	225	532	886	1148	1233	949	877	590	340	151	7022
	STD DEV	10	26	68	66	83	94	152	112	94	76	70	43	312
	61-90 AVERAGE	35	55	235	537	876	1192	1239	952	837	574	341	141	7014
	STD DEV	15	28	76	76	85	134	138	119	102	95	56	44	423
	71-00 AVERAGE	39	50	223	532	891	1188	1212	941	800	553	335	144	6909
1099	STD DEV	26	26	64	62	109	133	145	120	93	90	67	46	476
IL-11 Illinois	31-00 AVERAGE	4	18	91	367	760	1145	1285	1054	857	472	215	37	6305
	STD DEV	4	12	36	86	106	158	176	144	136	85	71	20	417
	31-60 AVERAGE	3	14	83	345	773	1126	1221	1048	878	470	216	36	6214
	STD DEV	4	9	38	81	112	144	156	136	153	88	67	23	421
	41-70 AVERAGE	5	17	89	343	763	1149	1278	1062	880	456	217	37	6295
	STD DEV	4	12	34	86	99	149	142	112	148	88	71	21	339
	51-80 AVERAGE	5	18	87	365	759	1146	1338	1078	881	461	212	37	6388
	STD DEV	4	11	34	95	99	138	169	143	132	81	69	21	365
	61-90 AVERAGE	5	21	94	386	739	1174	1348	1090	848	467	217	38	6429
	STD DEV	4	12	32	97	86	170	190	142	126	85	75	20	359
	71-00 AVERAGE	5	21	99	395	753	1154	1325	1045	830	474	215	38	6355
1199	STD DEV	4	14	38	85	111	175	183	163	118	88	71	19	453
IN-12 Indiana	31-00 AVERAGE	5	16	87	353	705	1063	1185	980	795	433	193	29	5843
	STD DEV	4	10	36	84	99	155	172	140	138	81	66	17	393
	31-60 AVERAGE	3	11	77	329	719	1050	1115	958	811	432	189	27	5722
	STD DEV	4	8	35	75	103	143	157	128	159	87	56	18	387
	41-70 AVERAGE	5	16	87	336	712	1074	1171	981	812	416	194	29	5831
	STD DEV	4	10	35	83	88	147	142	114	149	85	67	17	356
	51-80 AVERAGE	5	17	88	364	712	1064	1230	1011	813	423	196	32	5954
	STD DEV	4	9	37	89	90	134	164	150	134	79	68	18	359
	61-90 AVERAGE	5	19	92	377	686	1082	1253	1027	784	431	199	32	5988
	STD DEV	4	10	35	96	85	166	176	143	125	80	74	16	338
	71-00 AVERAGE	5	18	96	376	692	1066	1227	982	771	435	195	31	5894
1299	STD DEV	4	11	36	89	104	170	177	160	122	80	69	17	413



Heating Degree Days

Iowa – Maryland

State/Region	Element	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANNUAL
IA-13 Iowa  1399	31-00 AVERAGE	10	27	128	418	868	1285	1445	1162	942	505	219	43	7050
	STD DEV	8	16	46	91	113	161	184	165	155	94	72	23	468
	31-60 AVERAGE	9	22	117	396	873	1253	1407	1170	974	510	224	45	6999
	STD DEV	8	14	49	96	114	141	169	164	159	96	74	28	501
	41-70 AVERAGE	11	26	135	395	858	1280	1446	1174	986	502	225	47	7085
	STD DEV	7	15	42	94	104	145	140	121	173	101	72	26	370
	51-80 AVERAGE	11	27	133	419	860	1286	1505	1188	985	503	216	43	7174
	STD DEV	7	14	41	102	102	139	159	153	164	94	65	22	359
	61-90 AVERAGE	9	29	133	435	848	1325	1481	1187	928	493	215	41	7125
	STD DEV	6	15	39	94	92	172	205	157	159	98	71	20	417
	71-00 AVERAGE	11	29	131	445	876	1308	1461	1143	900	498	217	40	7058
	STD DEV	9	18	46	79	125	182	198	186	131	98	69	19	496
KS-14 Kansas  1499	31-00 AVERAGE	2	7	61	259	659	999	1110	855	681	329	120	16	5099
	STD DEV	3	6	31	68	98	133	162	147	137	80	48	11	376
	31-60 AVERAGE	3	5	53	242	662	972	1084	857	711	333	121	15	5058
	STD DEV	4	6	31	71	91	112	163	141	153	81	46	12	401
	41-70 AVERAGE	3	7	63	251	652	1002	1106	853	729	324	116	17	5123
	STD DEV	4	6	30	73	87	116	115	111	152	87	49	11	311
	51-80 AVERAGE	3	7	63	262	663	999	1156	878	710	322	115	16	5194
	STD DEV	3	6	33	76	88	107	149	150	143	74	47	10	308
	61-90 AVERAGE	2	9	67	274	648	1034	1146	886	664	315	118	17	5180
	STD DEV	2	6	30	70	89	148	173	147	124	82	49	10	342
	71-00 AVERAGE	2	8	66	276	665	1014	1125	851	641	330	124	17	5120
	STD DEV	2	7	32	55	111	151	171	174	101	83	47	12	397
KY-15 Kentucky  1599	31-00 AVERAGE	1	3	52	273	582	876	971	789	621	304	120	12	4603
	STD DEV	2	4	25	74	93	141	170	132	130	72	47	9	344
	31-60 AVERAGE	1	3	44	254	600	869	913	771	641	301	112	9	4519
	STD DEV	2	4	23	66	90	135	167	133	155	71	39	9	339
	41-70 AVERAGE	1	4	52	264	597	893	962	800	644	287	113	11	4627
	STD DEV	2	5	24	73	75	134	144	131	147	77	45	8	326
	51-80 AVERAGE	1	3	52	288	593	878	1010	823	635	294	121	14	4710
	STD DEV	1	3	28	77	81	128	162	146	135	71	49	10	337
	61-90 AVERAGE	1	4	57	292	560	887	1039	829	603	304	128	14	4718
	STD DEV	1	4	27	86	87	152	167	134	113	75	51	8	322
	71-00 AVERAGE	1	4	56	287	563	869	1003	784	596	311	129	13	4616
	STD DEV	1	3	24	81	101	150	173	135	103	71	52	9	356
LA-16 Louisiana  1699	31-00 AVERAGE	0	0	1	59	226	396	470	334	217	56	4	0	1764
	STD DEV	0	0	1	29	67	95	122	93	71	26	4	0	226
	31-60 AVERAGE	0	0	1	53	234	377	430	313	222	56	4	0	1690
	STD DEV	0	0	1	29	59	83	123	96	81	22	4	0	219
	41-70 AVERAGE	0	0	1	59	230	395	467	340	234	49	3	0	1780
	STD DEV	0	0	1	30	58	85	112	108	78	25	3	0	234
	51-80 AVERAGE	0	0	2	67	236	405	489	359	224	52	4	0	1837
	STD DEV	0	0	2	35	70	85	126	107	73	24	4	0	246
	61-90 AVERAGE	0	0	2	67	214	415	519	369	218	53	4	0	1860
	STD DEV	0	0	2	32	73	107	122	91	66	26	3	0	223
	71-00 AVERAGE	0	0	2	63	218	409	489	337	202	60	4	0	1783
	STD DEV	0	0	2	30	75	105	122	81	53	27	3	0	218
ME-17 Maine  1799	31-00 AVERAGE	39	63	233	552	853	1274	1431	1244	1081	713	395	131	8008
	STD DEV	19	27	49	69	77	139	133	110	96	62	65	37	362
	31-60 AVERAGE	41	63	223	536	846	1277	1399	1236	1090	714	396	142	7964
	STD DEV	18	28	44	64	83	138	139	112	109	70	65	39	393
	41-70 AVERAGE	41	69	229	529	838	1283	1421	1247	1082	714	406	134	7992
	STD DEV	21	31	55	64	69	136	125	104	99	65	72	40	330
	51-80 AVERAGE	38	65	236	549	848	1284	1424	1251	1079	711	397	126	8007
	STD DEV	20	29	55	70	75	141	129	103	89	53	73	38	340
	61-90 AVERAGE	36	64	241	558	858	1294	1458	1256	1077	712	395	125	8074
	STD DEV	18	30	53	70	74	146	129	102	85	57	62	34	298
	71-00 AVERAGE	35	58	242	579	860	1260	1456	1234	1071	706	386	125	8012
	STD DEV	19	20	46	67	73	148	127	112	91	58	63	36	365
MD-18 Maryland (and D.C.)  1899	31-00 AVERAGE	0	2	51	295	588	907	1002	857	695	377	131	11	4918
	STD DEV	1	2	23	71	80	124	150	117	111	72	45	8	318
	31-60 AVERAGE	0	3	51	285	597	919	962	853	718	382	127	11	4907
	STD DEV	1	3	24	66	72	118	159	121	131	79	38	8	317
	41-70 AVERAGE	0	3	53	283	595	940	1001	866	711	370	131	11	4964
	STD DEV	1	3	25	69	66	116	134	95	122	75	50	7	289
	51-80 AVERAGE	1	2	51	301	596	914	1029	879	704	369	137	13	4996
	STD DEV	1	2	24	72	76	120	124	118	103	71	50	9	268
	61-90 AVERAGE	1	2	53	305	578	908	1055	881	679	384	137	12	4993
	STD DEV	1	2	24	82	79	131	136	114	91	68	49	8	286
	71-00 AVERAGE	1	2	50	303	579	879	1019	840	669	364	131	12	4848
	STD DEV	1	2	18	78	90	134	147	122	92	67	44	9	331

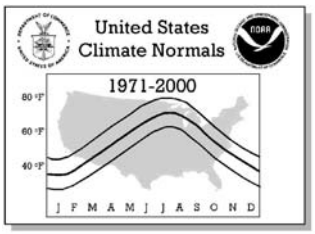


Population-Weighted Monthly Normals, 1971-2000 (and previous periods)
HISTORICAL CLIMATOGRAPHY SERIES 5-1

Heating Degree Days

Massachusetts – Montana

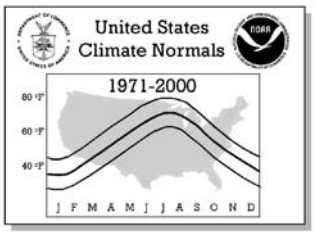
State/Region	Element	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANNUAL
MA-19 Massachusetts	31-00 AVERAGE	6	20	132	421	702	1068	1199	1047	907	576	275	61	6413
	STD DEV	5	13	39	71	78	122	136	107	95	69	61	24	338
	31-60 AVERAGE	6	19	120	398	696	1074	1171	1045	914	572	264	59	6338
	STD DEV	4	12	36	65	81	118	138	113	113	77	60	25	348
	41-70 AVERAGE	7	22	126	391	691	1088	1201	1051	911	566	280	60	6393
	STD DEV	5	14	43	62	69	118	126	92	103	75	71	25	336
	51-80 AVERAGE	7	21	137	422	701	1079	1210	1058	913	571	283	63	6464
	STD DEV	5	13	43	72	76	120	121	105	80	71	68	23	332
	61-90 AVERAGE	7	22	144	437	705	1082	1237	1064	905	584	287	66	6539
	STD DEV	5	14	40	76	75	128	133	94	76	66	60	25	265
	71-00 AVERAGE	7	19	141	450	703	1045	1209	1031	891	573	276	62	6409
1999	STD DEV	5	10	34	72	79	133	135	110	83	64	53	27	344
MI-20 Michigan	31-00 AVERAGE	13	33	140	445	800	1165	1307	1140	981	590	290	66	6972
	STD DEV	9	17	44	89	93	131	145	124	130	90	83	29	383
	31-60 AVERAGE	12	29	132	428	813	1164	1267	1141	1010	600	297	64	6957
	STD DEV	8	15	44	84	99	122	137	117	148	100	74	31	381
	41-70 AVERAGE	15	34	138	419	799	1176	1313	1149	996	577	302	66	6983
	STD DEV	9	18	42	89	86	118	129	92	138	95	83	30	309
	51-80 AVERAGE	15	35	140	442	796	1171	1343	1163	994	581	291	68	7039
	STD DEV	8	16	44	99	90	116	130	117	118	84	80	29	314
	61-90 AVERAGE	13	37	143	463	783	1179	1350	1164	967	582	287	70	7038
	STD DEV	8	17	42	101	76	136	150	122	116	85	87	29	333
	71-00 AVERAGE	14	36	148	470	794	1158	1325	1125	951	582	279	67	6950
2099	STD DEV	10	19	44	91	93	150	151	138	117	87	85	30	432
MN-21 Minnesota	31-00 AVERAGE	30	55	234	566	1059	1533	1720	1401	1174	670	324	97	8864
	STD DEV	19	26	62	98	125	170	191	178	161	108	87	41	570
	31-60 AVERAGE	27	50	227	555	1068	1515	1696	1435	1223	683	336	101	8918
	STD DEV	17	24	63	106	131	154	188	169	154	111	87	45	556
	41-70 AVERAGE	33	55	245	541	1049	1530	1727	1434	1213	675	349	106	8958
	STD DEV	17	25	60	101	119	145	169	123	174	111	82	44	423
	51-80 AVERAGE	33	59	245	560	1044	1536	1784	1427	1212	674	329	98	9000
	STD DEV	19	26	60	111	111	155	160	145	163	105	84	38	401
	61-90 AVERAGE	29	60	244	577	1042	1573	1751	1411	1152	656	321	96	8914
	STD DEV	17	27	59	99	103	174	203	170	167	109	88	38	526
	71-00 AVERAGE	32	58	235	587	1062	1545	1720	1352	1121	649	303	92	8756
2199	STD DEV	22	28	60	84	132	196	202	190	145	110	87	36	632
MS-22 Mississippi	31-00 AVERAGE	0	0	8	115	329	541	612	455	318	106	19	0	2503
	STD DEV	0	0	6	45	78	114	140	107	91	40	12	1	271
	31-60 AVERAGE	0	0	6	100	334	519	557	428	318	99	16	0	2379
	STD DEV	0	0	4	44	72	106	142	113	105	32	11	0	265
	41-70 AVERAGE	0	0	8	112	335	544	604	458	338	92	16	0	2508
	STD DEV	0	0	6	47	70	102	126	123	101	39	11	1	275
	51-80 AVERAGE	0	0	9	127	344	551	640	481	332	100	20	1	2604
	STD DEV	0	0	7	48	79	99	136	123	96	37	14	1	271
	61-90 AVERAGE	0	0	10	130	317	561	672	493	320	106	21	1	2631
	STD DEV	0	0	7	47	83	122	133	105	83	42	13	1	245
	71-00 AVERAGE	0	0	9	126	323	555	641	461	306	119	22	1	2563
2299	STD DEV	0	0	6	44	87	121	134	91	70	42	14	1	248
MO-23 Missouri	31-00 AVERAGE	2	9	66	279	649	995	1119	880	694	333	130	17	5171
	STD DEV	3	7	32	74	102	147	167	143	138	78	51	11	379
	31-60 AVERAGE	2	7	57	257	658	969	1073	873	717	338	127	15	5091
	STD DEV	3	6	32	71	102	126	158	139	155	79	47	12	396
	41-70 AVERAGE	3	9	65	264	645	992	1107	880	730	324	125	17	5161
	STD DEV	3	7	29	73	90	133	117	109	154	84	51	11	314
	51-80 AVERAGE	2	8	64	284	650	992	1163	904	718	322	125	17	5252
	STD DEV	3	6	32	80	94	117	158	144	145	76	49	11	326
	61-90 AVERAGE	2	10	70	299	632	1029	1166	918	680	322	132	18	5278
	STD DEV	2	7	31	80	88	161	182	140	129	82	54	11	333
	71-00 AVERAGE	2	10	73	302	647	1014	1148	875	661	333	135	18	5219
2399	STD DEV	2	8	34	70	112	165	178	165	110	81	51	11	397
MT-24 Montana	31-00 AVERAGE	81	103	333	639	1028	1303	1413	1132	1038	700	432	221	8424
	STD DEV	36	38	83	79	129	147	209	160	135	92	79	59	515
	31-60 AVERAGE	74	105	324	626	1025	1269	1436	1189	1087	702	428	235	8498
	STD DEV	28	26	63	85	133	126	239	160	128	87	94	64	536
	41-70 AVERAGE	82	108	344	636	1021	1299	1449	1138	1103	718	448	245	8591
	STD DEV	26	33	89	97	116	131	212	125	139	92	76	57	416
	51-80 AVERAGE	83	113	341	642	1035	1298	1462	1121	1081	732	449	226	8582
	STD DEV	27	41	92	83	113	149	182	130	133	91	71	56	432
	61-90 AVERAGE	82	106	350	646	1027	1345	1411	1105	1018	702	442	208	8442
	STD DEV	29	45	101	82	124	163	194	142	132	102	62	57	478
	71-00 AVERAGE	89	101	333	653	1041	1324	1381	1095	973	683	430	207	8311
2499	STD DEV	44	46	77	59	142	168	185	159	107	93	70	54	545



Heating Degree Days

Nebraska – New York

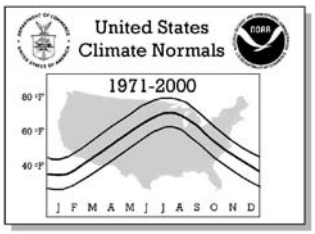
State/Region	Element	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANNUAL
NE-25 Nebraska	31-00 AVERAGE	9	18	117	386	832	1197	1328	1054	872	462	203	41	6519
	STD DEV	8	12	47	82	107	148	189	173	150	91	68	24	451
	31-60 AVERAGE	8	13	101	361	825	1161	1314	1076	904	466	205	41	6475
	STD DEV	8	9	47	87	98	122	198	182	155	99	73	29	481
	41-70 AVERAGE	10	17	124	370	815	1193	1338	1059	924	464	205	45	6563
	STD DEV	8	11	48	88	93	129	140	137	173	102	66	27	348
	51-80 AVERAGE	10	18	124	388	827	1200	1388	1071	908	461	199	40	6633
	STD DEV	7	12	49	92	89	134	144	164	162	83	59	22	365
	61-90 AVERAGE	9	21	129	406	823	1244	1351	1068	855	447	198	39	6589
	STD DEV	5	13	43	84	95	161	194	154	149	89	63	20	411
	71-00 AVERAGE	11	21	122	412	851	1220	1325	1032	827	459	205	39	6525
2599	STD DEV	8	14	41	61	125	172	193	188	117	92	62	20	481
NV-26 Nevada	31-00 AVERAGE	5	10	54	221	524	765	796	590	490	293	137	42	3925
	STD DEV	4	6	20	55	86	90	121	105	90	76	45	16	313
	31-60 AVERAGE	4	10	51	223	533	757	825	630	505	280	138	44	4000
	STD DEV	3	5	16	54	90	89	148	118	88	59	48	17	315
	41-70 AVERAGE	5	12	55	224	529	773	816	604	528	307	143	48	4045
	STD DEV	3	6	21	57	82	77	113	105	75	77	42	17	225
	51-80 AVERAGE	5	12	55	222	531	777	807	587	522	322	148	42	4029
	STD DEV	3	7	21	53	71	88	89	91	84	76	48	16	197
	61-90 AVERAGE	5	10	60	226	521	787	796	576	500	313	141	39	3973
	STD DEV	4	7	25	62	70	95	85	78	88	90	40	16	249
	71-00 AVERAGE	5	9	54	221	518	761	764	554	459	287	134	37	3802
2699	STD DEV	4	5	21	56	85	97	96	75	90	78	45	15	313
NH-27 New Hampshire	31-00 AVERAGE	19	53	215	541	839	1248	1392	1200	1037	660	331	85	7620
	STD DEV	14	25	52	75	83	132	136	115	104	76	73	30	345
	31-60 AVERAGE	19	54	207	525	836	1257	1366	1200	1053	661	329	84	7591
	STD DEV	12	26	51	69	86	125	140	121	123	85	71	33	342
	41-70 AVERAGE	22	59	214	516	828	1266	1392	1204	1043	656	345	87	7632
	STD DEV	15	29	59	69	76	125	126	102	112	81	82	33	318
	51-80 AVERAGE	22	57	224	544	839	1263	1401	1208	1041	660	341	89	7690
	STD DEV	15	27	58	78	84	129	124	108	92	71	83	32	332
	61-90 AVERAGE	19	55	225	551	842	1264	1426	1212	1027	662	334	90	7707
	STD DEV	14	27	54	81	81	139	132	103	85	73	76	29	302
	71-00 AVERAGE	18	49	221	565	842	1226	1405	1186	1018	653	320	85	7587
2799	STD DEV	13	19	43	77	81	147	137	117	92	74	68	31	378
NJ-28 New Jersey	31-00 AVERAGE	1	5	74	346	627	970	1082	937	786	455	182	21	5486
	STD DEV	1	5	28	76	77	119	147	114	104	69	54	12	331
	31-60 AVERAGE	1	5	69	327	632	982	1047	935	803	453	174	19	5446
	STD DEV	1	5	28	73	76	114	151	119	123	79	47	12	338
	41-70 AVERAGE	1	6	70	322	626	1000	1089	943	797	445	185	20	5502
	STD DEV	1	4	30	69	67	111	134	90	111	76	62	12	310
	51-80 AVERAGE	1	5	74	347	628	978	1106	953	792	447	191	24	5546
	STD DEV	1	3	32	76	76	116	121	112	90	72	62	14	296
	61-90 AVERAGE	1	6	79	358	619	974	1134	956	777	463	190	24	5582
	STD DEV	1	4	32	84	77	124	136	107	85	65	59	13	287
	71-00 AVERAGE	1	5	77	366	622	942	1091	920	763	450	183	24	5443
2899	STD DEV	2	4	24	82	80	130	148	120	90	61	50	14	341
NM-29 New Mexico	31-00 AVERAGE	5	11	74	313	667	921	955	733	628	375	162	33	4878
	STD DEV	3	5	22	53	76	80	90	91	80	69	40	12	243
	31-60 AVERAGE	6	11	68	303	679	912	960	745	641	369	163	33	4889
	STD DEV	3	4	19	49	75	88	96	101	70	67	40	12	237
	41-70 AVERAGE	5	11	71	308	665	923	960	746	663	371	158	35	4916
	STD DEV	3	5	20	56	81	82	98	101	79	68	34	14	230
	51-80 AVERAGE	5	12	75	314	671	929	955	748	646	385	169	33	4943
	STD DEV	3	6	22	56	79	83	94	98	91	63	40	12	217
	61-90 AVERAGE	5	13	81	321	652	931	968	740	630	380	168	34	4923
	STD DEV	2	6	22	61	68	75	84	78	94	74	38	12	239
	71-00 AVERAGE	5	11	77	323	666	925	940	712	600	380	165	32	4837
2999	STD DEV	3	5	24	52	79	76	81	70	72	76	43	12	258
NY-30 New York	31-00 AVERAGE	7	18	107	383	682	1042	1180	1034	890	535	240	43	6161
	STD DEV	5	10	34	74	80	122	144	116	105	75	62	18	344
	31-60 AVERAGE	6	16	101	368	686	1053	1152	1035	909	539	240	41	6145
	STD DEV	4	10	33	70	85	117	148	121	123	86	56	19	361
	41-70 AVERAGE	7	18	101	357	675	1067	1188	1040	899	526	249	42	6169
	STD DEV	5	10	37	67	73	115	132	95	110	82	70	19	314
	51-80 AVERAGE	7	18	107	382	679	1050	1200	1046	892	527	246	45	6200
	STD DEV	5	9	38	77	79	117	122	115	90	73	69	20	311
	61-90 AVERAGE	7	19	112	395	676	1049	1219	1051	877	536	244	47	6232
	STD DEV	4	9	37	82	76	127	138	108	86	69	67	18	284
	71-00 AVERAGE	8	18	113	405	678	1016	1188	1017	867	528	233	45	6116
3099	STD DEV	6	9	28	78	78	132	143	122	93	67	58	19	362



Heating Degree Days

North Carolina – Pennsylvania

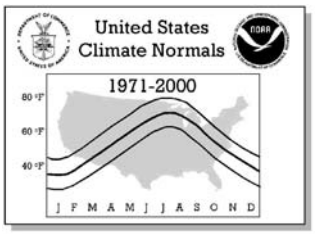
State/Region	Element	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANNUAL
NC-31 North Carolina	31-00 AVERAGE	0	1	25	199	441	703	758	620	476	206	63	6	3499
	STD DEV	1	1	12	59	80	119	142	106	105	52	27	5	301
	31-60 AVERAGE	0	1	21	180	446	700	706	600	486	197	54	5	3398
	STD DEV	1	1	11	50	76	121	147	111	129	48	22	4	291
	41-70 AVERAGE	0	1	26	190	450	727	752	629	494	192	57	6	3523
	STD DEV	1	1	13	55	70	112	126	108	123	53	27	5	300
	51-80 AVERAGE	0	1	26	210	452	713	784	648	491	198	64	8	3595
	STD DEV	0	1	13	57	72	112	130	113	106	51	29	6	268
	61-90 AVERAGE	0	1	28	215	431	709	817	652	471	213	70	8	3614
	STD DEV	0	1	14	69	81	120	134	105	82	56	27	5	290
	71-00 AVERAGE	0	1	27	215	433	693	785	619	462	212	70	8	3523
3199	STD DEV	0	1	11	66	89	121	138	100	82	55	29	6	300
ND-32 North Dakota	31-00 AVERAGE	45	68	284	640	1164	1618	1822	1479	1255	726	363	137	9601
	STD DEV	27	33	77	98	151	195	242	219	183	120	94	51	651
	31-60 AVERAGE	40	64	272	629	1168	1590	1823	1535	1304	736	372	147	9679
	STD DEV	22	25	69	112	159	181	253	229	172	120	101	51	635
	41-70 AVERAGE	47	68	294	614	1147	1621	1843	1520	1311	737	398	153	9754
	STD DEV	21	30	82	109	144	184	229	149	202	121	84	52	537
	51-80 AVERAGE	47	73	293	628	1150	1624	1888	1499	1297	740	373	136	9750
	STD DEV	25	38	83	109	137	189	193	176	188	127	88	48	525
	61-90 AVERAGE	43	74	298	644	1151	1663	1823	1472	1231	716	362	129	9604
	STD DEV	23	41	85	93	137	191	251	192	188	125	95	51	648
	71-00 AVERAGE	50	72	289	663	1175	1630	1795	1410	1196	702	339	127	9447
3299	STD DEV	32	40	68	65	157	216	244	220	165	127	90	47	701
OH-33 Ohio	31-00 AVERAGE	6	16	98	374	705	1048	1166	992	825	473	216	36	5954
	STD DEV	5	11	38	82	92	147	171	133	133	84	68	19	383
	31-60 AVERAGE	5	13	87	354	718	1047	1108	976	847	479	210	32	5877
	STD DEV	5	10	36	74	93	140	167	126	153	95	57	19	368
	41-70 AVERAGE	6	17	96	355	711	1069	1160	997	842	458	216	35	5961
	STD DEV	6	11	37	82	78	141	149	110	140	90	71	17	328
	51-80 AVERAGE	7	17	97	382	709	1052	1208	1022	836	463	218	39	6051
	STD DEV	4	10	43	89	85	135	157	140	128	82	69	20	351
	61-90 AVERAGE	7	18	104	393	688	1059	1231	1031	809	473	222	41	6075
	STD DEV	4	10	41	95	85	157	168	135	121	78	74	19	352
	71-00 AVERAGE	6	18	106	396	693	1037	1199	989	800	470	218	40	5971
3399	STD DEV	5	11	36	89	99	160	173	148	122	77	70	22	426
OK-34 Oklahoma	31-00 AVERAGE	0	1	26	156	493	784	880	657	496	196	48	3	3742
	STD DEV	0	2	17	51	91	117	140	125	116	59	24	3	291
	31-60 AVERAGE	0	1	22	146	503	765	854	656	518	200	49	2	3716
	STD DEV	1	2	14	53	86	96	140	118	129	57	24	2	308
	41-70 AVERAGE	0	1	25	154	487	782	879	660	538	188	46	3	3764
	STD DEV	1	2	13	54	83	101	109	99	129	62	23	2	246
	51-80 AVERAGE	0	1	26	161	495	781	909	675	511	188	47	3	3795
	STD DEV	0	2	20	57	92	94	143	131	128	61	25	2	258
	61-90 AVERAGE	0	2	29	166	476	812	918	686	482	184	47	3	3804
	STD DEV	0	2	20	52	85	133	150	129	110	63	24	3	264
	71-00 AVERAGE	0	2	29	165	491	799	896	652	463	200	50	3	3752
3499	STD DEV	0	2	21	46	98	136	144	147	82	62	24	3	307
OR-35 Oregon	31-00 AVERAGE	66	69	160	394	639	806	843	663	628	475	319	164	5226
	STD DEV	27	27	49	58	79	80	116	84	75	71	66	47	331
	31-60 AVERAGE	68	76	162	390	648	792	873	690	647	464	310	170	5289
	STD DEV	27	25	44	64	76	78	137	84	81	69	69	48	369
	41-70 AVERAGE	69	79	164	402	635	800	870	663	658	492	328	173	5331
	STD DEV	29	27	48	63	67	68	126	81	62	68	63	50	291
	51-80 AVERAGE	66	77	163	396	640	798	850	653	656	503	336	169	5307
	STD DEV	27	31	51	52	68	75	103	76	64	68	62	54	256
	61-90 AVERAGE	68	67	168	399	636	825	835	650	623	494	336	158	5260
	STD DEV	25	29	54	58	74	88	93	76	67	75	50	48	256
	71-00 AVERAGE	63	61	155	395	637	819	816	647	605	471	319	162	5150
3599	STD DEV	28	27	51	55	88	88	91	78	72	69	64	46	319
PA-36 Pennsylvania	31-00 AVERAGE	7	17	102	386	683	1023	1134	981	825	476	207	36	5875
	STD DEV	5	10	35	80	81	126	156	118	115	74	62	18	337
	31-60 AVERAGE	5	15	92	360	686	1026	1081	965	837	468	192	31	5757
	STD DEV	4	9	33	71	79	121	157	120	137	87	49	17	320
	41-70 AVERAGE	7	18	99	362	682	1049	1131	983	832	459	206	34	5861
	STD DEV	5	10	38	76	68	119	141	101	126	84	67	16	315
	51-80 AVERAGE	8	17	101	391	685	1031	1164	1001	830	465	215	40	5948
	STD DEV	5	9	39	81	79	123	133	123	104	75	67	19	310
	61-90 AVERAGE	8	19	110	404	675	1033	1195	1011	815	486	220	42	6018
	STD DEV	5	10	39	89	80	133	143	112	96	68	66	17	280
	71-00 AVERAGE	8	18	110	411	681	1006	1159	974	809	478	214	41	5913
3699	STD DEV	5	10	29	85	89	138	152	124	103	64	61	19	356



Heating Degree Days

Rhode Island – Utah

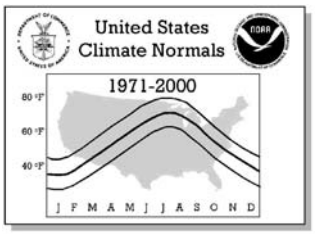
State/Region	Element	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANNUAL
RI-37 Rhode Island	31-00 AVERAGE	5	15	105	372	637	982	1105	970	859	558	281	62	5952
	STD DEV	5	11	35	67	74	117	130	104	85	64	59	24	330
	31-60 AVERAGE	6	16	100	359	637	990	1079	968	871	563	282	64	5934
	STD DEV	4	12	32	62	73	114	135	111	99	68	56	26	338
	41-70 AVERAGE	6	18	107	355	631	1011	1111	973	870	556	297	65	5997
	STD DEV	5	13	40	58	64	114	124	85	89	69	67	26	312
	51-80 AVERAGE	6	16	113	381	637	997	1120	977	864	551	291	66	6018
	STD DEV	5	12	41	67	73	118	119	101	78	69	67	25	311
	61-90 AVERAGE	6	15	113	384	634	991	1136	984	853	560	289	64	6028
	STD DEV	5	12	39	74	75	123	128	94	71	64	59	24	281
	71-00 AVERAGE	5	13	105	388	635	955	1113	958	840	549	270	58	5887
3799	STD DEV	4	8	32	74	79	123	124	109	76	61	52	25	335
SC-38 South Carolina	31-00 AVERAGE	0	0	9	137	357	598	643	508	369	132	29	2	2785
	STD DEV	0	0	6	48	78	112	136	103	95	43	17	2	275
	31-60 AVERAGE	0	0	8	124	363	597	595	490	381	125	24	1	2708
	STD DEV	0	0	5	42	73	116	139	111	114	36	13	1	265
	41-70 AVERAGE	0	0	10	132	365	616	637	514	387	120	25	1	2806
	STD DEV	0	0	8	45	71	106	122	112	109	43	15	2	274
	51-80 AVERAGE	0	0	10	145	362	601	665	532	380	124	29	2	2850
	STD DEV	0	0	7	46	74	104	133	111	98	40	17	2	263
	61-90 AVERAGE	0	0	11	148	345	598	698	535	362	136	33	2	2868
	STD DEV	0	0	7	55	81	111	132	102	77	46	16	2	281
	71-00 AVERAGE	0	0	10	148	346	590	666	506	354	139	34	2	2795
3899	STD DEV	0	0	5	54	85	113	133	93	77	46	18	2	279
SD-39 South Dakota	31-00 AVERAGE	31	36	190	504	977	1363	1510	1221	1041	599	293	96	7862
	STD DEV	20	20	65	88	128	165	212	192	158	102	80	41	541
	31-60 AVERAGE	25	30	173	480	966	1326	1496	1258	1080	599	293	98	7823
	STD DEV	18	16	63	96	124	137	223	202	156	113	93	48	560
	41-70 AVERAGE	33	36	202	487	959	1360	1523	1240	1099	603	307	108	7957
	STD DEV	17	18	67	99	115	145	178	132	184	114	77	44	408
	51-80 AVERAGE	32	38	199	503	972	1372	1574	1242	1084	607	297	96	8018
	STD DEV	16	19	67	99	107	149	168	164	171	97	65	39	414
	61-90 AVERAGE	29	41	204	520	970	1413	1530	1225	1022	587	291	92	7923
	STD DEV	14	21	65	84	114	173	218	166	160	99	69	34	503
	71-00 AVERAGE	36	41	197	533	1000	1386	1503	1181	992	594	291	94	7848
3999	STD DEV	23	22	55	57	144	193	217	202	121	101	70	34	589
TN-40 Tennessee	31-00 AVERAGE	0	1	35	232	514	779	855	681	522	234	82	6	3942
	STD DEV	1	2	18	68	89	130	158	124	118	63	37	5	321
	31-60 AVERAGE	0	1	29	209	525	763	795	659	532	226	71	4	3812
	STD DEV	1	1	16	62	84	128	157	130	139	58	31	5	309
	41-70 AVERAGE	0	1	35	224	526	791	843	687	544	216	74	6	3946
	STD DEV	1	2	18	67	76	124	137	135	135	66	35	5	321
	51-80 AVERAGE	0	1	36	248	528	785	889	711	539	225	83	8	4052
	STD DEV	1	2	20	68	81	118	153	141	124	60	39	6	317
	61-90 AVERAGE	0	1	41	254	498	797	925	720	514	238	91	8	4086
	STD DEV	1	2	20	76	87	138	152	123	103	66	38	5	289
	71-00 AVERAGE	0	1	40	250	502	782	889	683	505	248	92	8	4000
4099	STD DEV	0	2	18	73	97	133	157	115	92	65	41	5	309
TX-41 Texas	31-00 AVERAGE	0	0	4	59	256	452	524	370	241	69	10	0	1986
	STD DEV	0	0	3	27	68	91	110	88	73	27	6	0	209
	31-60 AVERAGE	0	0	3	55	265	435	498	362	251	71	10	0	1949
	STD DEV	0	0	2	26	60	76	105	86	81	25	6	0	216
	41-70 AVERAGE	0	0	4	59	252	444	525	375	265	64	9	0	1996
	STD DEV	0	0	2	25	57	82	100	88	80	25	4	0	192
	51-80 AVERAGE	0	0	4	65	264	452	541	388	247	65	10	0	2036
	STD DEV	0	0	4	34	74	80	120	97	79	27	6	0	210
	61-90 AVERAGE	0	0	5	64	243	473	562	398	238	64	9	0	2056
	STD DEV	0	0	4	31	72	106	116	89	70	28	6	0	193
	71-00 AVERAGE	0	0	5	62	255	470	534	367	221	73	10	0	1995
4199	STD DEV	0	0	4	28	77	101	114	92	49	29	6	0	219
UT-42 Utah	31-00 AVERAGE	13	24	162	466	846	1141	1221	964	835	552	307	117	6648
	STD DEV	8	12	52	80	103	114	157	135	111	95	75	43	423
	31-60 AVERAGE	13	24	150	448	852	1108	1234	982	855	534	302	120	6622
	STD DEV	6	8	40	73	108	117	177	149	103	86	82	43	413
	41-70 AVERAGE	14	27	166	464	838	1131	1227	968	879	563	307	135	6720
	STD DEV	5	13	59	90	99	94	154	134	106	93	71	42	326
	51-80 AVERAGE	13	30	171	472	849	1153	1217	963	872	584	317	120	6760
	STD DEV	4	14	61	79	94	105	140	123	112	81	74	39	333
	61-90 AVERAGE	12	27	180	484	837	1181	1243	972	846	572	320	115	6790
	STD DEV	5	15	63	93	77	109	129	124	120	100	66	41	385
	71-00 AVERAGE	13	22	164	478	853	1162	1207	951	794	551	312	106	6613
4299	STD DEV	10	11	49	75	104	115	148	122	105	101	71	42	466



Heating Degree Days

Vermont – Wyoming

State/Region	Element	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANNUAL
VT-43 Vermont	31-00 AVERAGE	30	69	235	564	880	1313	1480	1290	1110	692	345	93	8102
	STD DEV	18	28	56	82	93	147	160	129	120	87	78	32	370
	31-60 AVERAGE	29	67	223	545	879	1324	1456	1287	1124	687	342	90	8053
	STD DEV	17	31	52	73	104	138	163	132	142	92	75	32	393
	41-70 AVERAGE	31	72	225	531	863	1331	1488	1293	1108	680	358	91	8071
	STD DEV	20	33	60	72	89	140	150	111	125	88	85	33	343
	51-80 AVERAGE	31	69	235	555	869	1320	1490	1298	1104	688	349	92	8100
	STD DEV	20	30	60	84	92	141	141	126	105	82	88	32	351
	61-90 AVERAGE	29	69	241	570	878	1325	1507	1302	1097	691	344	97	8151
	STD DEV	16	28	59	87	85	158	158	124	101	88	79	32	298
	71-00 AVERAGE	31	68	250	596	886	1291	1487	1277	1097	693	337	97	8109
4399	STD DEV	18	23	49	83	82	163	156	139	111	90	76	34	394
VA-44 Virginia	31-00 AVERAGE	1	2	48	273	544	840	917	773	624	320	114	12	4467
	STD DEV	1	2	21	69	81	124	150	112	111	65	41	8	309
	31-60 AVERAGE	1	2	43	253	549	843	869	759	638	316	102	10	4384
	STD DEV	1	2	21	61	74	124	158	118	136	70	33	7	312
	41-70 AVERAGE	1	2	47	255	546	865	910	779	635	303	105	11	4457
	STD DEV	1	2	21	65	66	119	134	103	129	65	43	7	302
	51-80 AVERAGE	1	2	47	277	548	842	942	796	629	307	114	14	4519
	STD DEV	1	2	22	68	75	120	129	118	109	63	44	9	281
	61-90 AVERAGE	1	2	52	287	532	843	976	803	612	328	121	14	4571
	STD DEV	1	2	22	80	80	129	137	110	89	63	40	8	283
	71-00 AVERAGE	1	2	51	291	538	823	942	767	608	319	123	14	4478
4499	STD DEV	1	2	17	76	92	131	143	113	87	63	40	10	316
WA-45 Washington	31-00 AVERAGE	81	85	194	442	686	854	904	712	663	482	314	167	5585
	STD DEV	29	30	50	54	85	89	135	91	73	62	60	44	367
	31-60 AVERAGE	84	96	200	434	692	833	931	744	682	475	306	173	5651
	STD DEV	31	24	42	61	84	82	162	100	79	66	64	42	420
	41-70 AVERAGE	82	95	199	444	685	849	935	709	691	499	321	172	5681
	STD DEV	32	29	48	61	76	83	150	82	67	60	63	47	363
	51-80 AVERAGE	83	94	199	447	693	847	923	702	694	508	328	175	5692
	STD DEV	30	34	54	50	73	86	115	76	65	56	59	53	314
	61-90 AVERAGE	82	81	198	451	684	878	897	695	657	498	329	164	5615
	STD DEV	24	33	56	53	86	101	111	77	68	61	45	48	292
	71-00 AVERAGE	77	73	187	450	687	873	877	696	640	476	311	166	5512
4599	STD DEV	27	30	53	46	94	96	105	81	69	58	58	45	346
WV-46 West Virginia	31-00 AVERAGE	5	11	85	351	647	946	1031	872	719	396	176	32	5270
	STD DEV	4	7	33	79	90	139	168	128	127	75	58	18	343
	31-60 AVERAGE	4	10	76	328	658	947	971	852	740	388	162	26	5163
	STD DEV	4	7	32	71	85	134	172	131	151	81	45	17	325
	41-70 AVERAGE	5	12	86	335	656	973	1028	880	736	378	168	30	5288
	STD DEV	5	7	35	78	73	134	154	125	141	83	58	17	338
	51-80 AVERAGE	6	11	85	364	657	953	1074	905	727	391	179	37	5389
	STD DEV	4	7	37	81	80	135	152	138	124	74	60	21	327
	61-90 AVERAGE	6	12	91	369	631	952	1101	910	698	406	186	37	5399
	STD DEV	4	8	36	92	88	151	155	126	106	71	61	17	328
	71-00 AVERAGE	5	12	90	370	635	931	1061	868	698	402	188	36	5296
4699	STD DEV	4	8	29	88	101	146	163	126	107	70	61	19	354
WI-47 Wisconsin	31-00 AVERAGE	21	44	175	491	907	1327	1490	1243	1056	626	315	88	7784
	STD DEV	14	23	49	94	109	152	171	144	135	93	84	37	462
	31-60 AVERAGE	17	37	162	471	915	1312	1443	1255	1091	627	318	85	7735
	STD DEV	12	21	51	94	117	135	154	133	143	100	79	40	470
	41-70 AVERAGE	22	43	177	461	904	1332	1491	1261	1080	610	324	89	7795
	STD DEV	13	23	44	94	105	133	145	106	144	93	81	39	367
	51-80 AVERAGE	22	47	179	486	904	1334	1546	1270	1083	622	315	90	7898
	STD DEV	12	21	44	104	102	135	161	127	128	86	83	36	360
	61-90 AVERAGE	21	49	183	506	893	1360	1538	1265	1041	621	316	92	7884
	STD DEV	12	22	41	102	85	162	185	140	129	89	89	37	401
	71-00 AVERAGE	23	49	184	520	907	1334	1513	1217	1020	625	310	89	7791
4799	STD DEV	15	24	51	89	113	176	182	161	124	95	88	34	508
WY-48 Wyoming	31-00 AVERAGE	54	77	298	624	1024	1301	1384	1138	1051	725	445	200	8319
	STD DEV	24	26	71	84	118	128	152	132	119	95	81	59	400
	31-60 AVERAGE	52	73	283	604	1019	1263	1392	1165	1089	725	446	204	8316
	STD DEV	22	19	58	79	116	113	164	143	106	93	94	63	401
	41-70 AVERAGE	55	77	300	613	1007	1284	1387	1138	1110	729	448	218	8365
	STD DEV	21	26	81	101	112	98	143	121	120	101	79	60	326
	51-80 AVERAGE	52	82	301	619	1029	1293	1404	1130	1087	744	447	197	8385
	STD DEV	20	30	81	91	102	123	145	112	122	85	67	57	344
	61-90 AVERAGE	52	83	314	636	1020	1342	1393	1133	1042	724	451	194	8382
	STD DEV	18	31	84	95	105	141	152	108	125	102	66	54	391
	71-00 AVERAGE	59	78	304	644	1043	1331	1376	1120	994	717	448	190	8302
4899	STD DEV	28	29	65	60	126	143	147	126	95	99	71	56	441

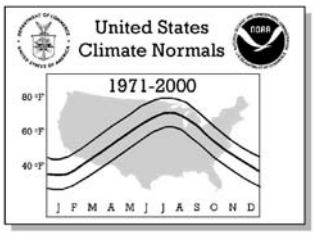


Population-Weighted Monthly Normals, 1971-2000 (and previous periods)
HISTORICAL CLIMATOGRAPHY SERIES 5-1

Heating Degree Days

Alaska – Hawaii – Territories – Census Regions

State/Region	Element	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANNUAL
AK-50 Alaska	31-00 AVERAGE	275	346	568	995	1361	1629	1682	1395	1351	962	650	369	11584
	STD DEV	36	50	59	103	155	199	222	179	142	93	63	53	609
	31-60 AVERAGE	280	348	566	961	1338	1656	1695	1392	1368	954	648	361	11567
	STD DEV	35	46	45	105	169	203	218	186	127	89	54	60	634
	41-70 AVERAGE	285	354	567	991	1364	1676	1700	1387	1369	982	656	371	11702
	STD DEV	34	48	49	96	167	221	199	168	162	77	68	60	570
	51-80 AVERAGE	282	346	569	1005	1355	1684	1728	1417	1396	986	663	386	11815
	STD DEV	36	51	47	93	170	206	210	171	163	84	68	57	609
	61-90 AVERAGE	277	346	568	1013	1393	1618	1671	1411	1344	990	661	388	11678
	STD DEV	34	53	50	89	148	214	255	176	163	97	69	47	588
	71-00 AVERAGE	264	338	573	1021	1376	1586	1658	1405	1331	961	641	371	11525
5099	STD DEV	36	52	72	96	153	177	245	192	139	107	66	43	629
HI-51 Hawaii	61-00 AVERAGE	0	0	0	0	1	3	7	6	4	2	1	0	23
	STD DEV	0	0	0	0	1	2	4	4	2	1	1	0	11
	61-90 AVERAGE	0	0	0	0	1	3	6	6	4	1	1	0	22
	STD DEV	0	0	0	0	1	2	4	5	3	1	1	0	12
	71-00 AVERAGE	0	0	0	0	0	2	6	6	4	1	1	0	20
5199	STD DEV	0	0	0	0	1	1	4	3	2	1	1	0	9
PR-66 Puerto Rico	31-00 AVERAGE	0	0	0	0	0	0	1	1	1	0	0	0	3
	STD DEV	0	0	0	0	0	1	1	1	1	0	0	0	3
	31-60 AVERAGE	0	0	0	0	0	0	0	0	1	0	0	0	2
	STD DEV	0	0	0	0	0	0	1	1	2	0	0	0	3
	41-70 AVERAGE	0	0	0	0	0	0	0	0	1	0	0	0	2
	STD DEV	0	0	0	0	0	0	1	1	2	0	0	0	3
	51-80 AVERAGE	0	0	0	0	0	0	1	0	1	0	0	0	3
	STD DEV	0	0	0	0	0	1	1	1	2	0	0	0	3
	61-90 AVERAGE	0	0	0	0	0	1	1	1	1	0	0	0	3
	STD DEV	0	0	0	0	0	1	1	1	1	0	0	0	3
	71-00 AVERAGE	0	0	0	0	0	1	1	1	2	0	0	0	4
6699	STD DEV	0	0	0	0	0	1	1	1	1	0	0	0	2
VI-67 Virgin Islands	31-00 AVERAGE	0	0	0	0	0	0	0	0	0	0	0	0	0
	STD DEV	0	0	0	0	0	0	0	0	0	0	0	0	0
	31-60 AVERAGE	0	0	0	0	0	0	0	0	0	0	0	0	0
	STD DEV	0	0	0	0	0	0	0	0	0	0	0	0	0
	41-70 AVERAGE	0	0	0	0	0	0	0	0	0	0	0	0	0
	STD DEV	0	0	0	0	0	0	0	0	0	0	0	0	0
	51-80 AVERAGE	0	0	0	0	0	0	0	0	0	0	0	0	0
	STD DEV	0	0	0	0	0	0	0	0	0	0	0	0	0
	61-90 AVERAGE	0	0	0	0	0	0	0	0	0	0	0	0	0
	STD DEV	0	0	0	0	0	0	0	0	0	0	0	0	0
	71-00 AVERAGE	0	0	0	0	0	0	0	0	0	0	0	0	0
6799	STD DEV	0	0	0	0	0	0	0	0	0	0	0	0	0
PI-91 Pacific Islands	61-00 AVERAGE	0	0	0	0	0	0	0	0	0	0	0	0	0
	STD DEV	0	0	0	0	0	0	0	0	0	0	0	0	0
	61-90 AVERAGE	0	0	0	0	0	0	0	0	0	0	0	0	0
	STD DEV	0	0	0	0	0	0	0	0	0	0	0	0	0
	71-00 AVERAGE	0	0	0	0	0	0	0	0	0	0	0	0	0
9199	STD DEV	0	0	0	0	0	0	0	0	0	0	0	0	0
Census Region-01 New England	31-00 AVERAGE	11	28	147	442	728	1104	1238	1078	933	591	288	67	6655
	STD DEV	7	15	39	71	77	123	135	109	95	69	61	24	337
	31-60 AVERAGE	11	28	139	423	727	1113	1212	1078	946	592	284	68	6621
	STD DEV	6	16	37	66	80	119	139	114	113	77	60	26	353
	41-70 AVERAGE	12	31	144	417	720	1127	1243	1085	941	586	299	68	6673
	STD DEV	8	17	44	62	68	119	125	94	102	75	70	25	326
	51-80 AVERAGE	12	29	152	443	726	1115	1249	1089	938	586	297	69	6705
	STD DEV	8	16	44	71	75	121	121	105	83	68	69	24	322
	61-90 AVERAGE	11	29	156	454	727	1115	1272	1092	926	594	295	70	6742
	STD DEV	7	16	42	76	75	130	133	97	78	65	62	23	275
	71-00 AVERAGE	11	26	153	467	727	1078	1246	1060	913	583	281	66	6612
5801	STD DEV	7	11	35	72	78	134	135	111	84	63	55	25	342

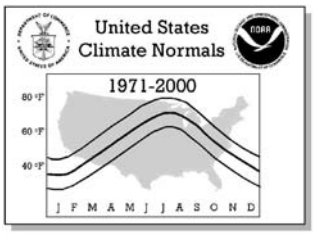


Population-Weighted Monthly Normals, 1971-2000 (and previous periods)
HISTORICAL CLIMATOGRAPHY SERIES 5-1

Heating Degree Days

Census Regions

State/Region	Element	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANNUAL
Census Region-02 Middle Atlantic	31-00 AVERAGE	6	15	98	376	671	1021	1145	997	848	500	218	36	5930
	STD DEV	4	8	32	76	79	121	147	115	106	72	59	16	333
	31-60 AVERAGE	4	13	92	356	674	1029	1108	992	864	499	211	33	5877
	STD DEV	3	8	32	70	80	116	150	119	126	83	51	17	338
	41-70 AVERAGE	6	15	94	351	667	1047	1150	1002	857	488	222	35	5932
	STD DEV	4	9	35	69	69	114	134	95	114	80	67	16	308
	51-80 AVERAGE	6	15	98	377	670	1029	1169	1012	852	491	225	39	5983
	STD DEV	4	8	36	78	78	118	124	116	93	72	66	18	304
	61-90 AVERAGE	6	16	104	390	664	1028	1193	1018	836	505	225	41	6028
	STD DEV	4	8	36	84	77	127	138	108	88	66	64	16	280
	71-00 AVERAGE	6	16	105	399	667	998	1158	983	827	496	217	39	5910
5802	STD DEV	4	8	27	80	81	133	146	121	95	63	56	18	353
Census Region-03 East North Central	31-00 AVERAGE	9	24	113	399	765	1136	1271	1070	892	511	241	48	6477
	STD DEV	6	13	38	84	96	144	162	132	131	84	72	23	390
	31-60 AVERAGE	7	19	104	378	778	1127	1215	1063	916	515	241	46	6407
	STD DEV	6	11	38	78	101	134	148	123	149	91	64	24	386
	41-70 AVERAGE	9	24	112	376	767	1147	1267	1078	911	496	245	48	6478
	STD DEV	6	13	36	84	88	135	136	103	141	88	73	22	319
	51-80 AVERAGE	10	25	112	400	766	1139	1317	1096	910	502	241	50	6568
	STD DEV	5	12	38	93	90	127	152	132	124	80	71	22	335
	61-90 AVERAGE	9	27	118	418	747	1156	1329	1104	879	507	243	51	6588
	STD DEV	5	13	36	96	79	154	169	132	119	81	78	22	341
	71-00 AVERAGE	9	26	121	424	757	1135	1302	1061	864	510	238	50	6498
5803	STD DEV	6	15	38	86	100	161	169	150	117	82	74	23	433
Census Region-04 West North Central	31-00 AVERAGE	14	27	134	401	835	1231	1378	1102	901	480	212	51	6765
	STD DEV	9	14	41	80	105	146	169	153	141	84	62	22	428
	31-60 AVERAGE	12	23	124	383	840	1204	1348	1115	935	487	216	52	6739
	STD DEV	8	12	42	83	105	124	160	150	146	87	64	26	441
	41-70 AVERAGE	15	27	140	383	826	1228	1378	1114	943	478	220	55	6807
	STD DEV	8	13	38	83	94	127	127	106	158	90	62	24	318
	51-80 AVERAGE	15	28	139	402	830	1232	1433	1125	935	477	211	51	6877
	STD DEV	8	13	39	90	92	125	148	139	146	80	57	20	318
	61-90 AVERAGE	13	30	142	417	819	1269	1414	1125	884	467	211	50	6840
	STD DEV	8	14	37	83	85	157	186	146	140	85	62	21	383
	71-00 AVERAGE	15	29	139	424	840	1248	1390	1078	858	472	208	49	6750
5804	STD DEV	10	15	40	68	116	168	183	175	114	85	60	20	474
Census Region-05 South Atlantic	31-00 AVERAGE	0	1	23	155	349	566	626	511	388	177	57	6	2858
	STD DEV	0	1	10	42	61	97	119	89	80	38	21	4	237
	31-60 AVERAGE	0	1	20	143	355	566	588	498	398	173	51	5	2798
	STD DEV	0	1	9	37	58	97	122	96	97	38	17	3	229
	41-70 AVERAGE	0	1	23	148	357	586	623	519	401	167	53	5	2884
	STD DEV	1	1	11	40	54	91	103	93	90	40	22	3	238
	51-80 AVERAGE	0	1	23	161	357	576	649	535	396	171	59	7	2935
	STD DEV	0	1	11	42	57	91	109	96	78	37	23	4	222
	61-90 AVERAGE	0	1	25	164	341	571	672	536	381	181	62	7	2942
	STD DEV	0	1	11	49	62	101	114	86	63	38	22	4	232
	71-00 AVERAGE	0	1	24	164	339	555	643	507	373	179	61	7	2853
5805	STD DEV	0	1	8	47	66	99	118	83	64	38	22	4	239
Census Region-06 East South Central	31-00 AVERAGE	0	1	29	198	461	712	788	621	469	204	68	5	3555
	STD DEV	1	2	15	60	84	125	153	118	109	56	30	4	304
	31-60 AVERAGE	0	1	24	179	471	697	730	598	477	196	60	4	3437
	STD DEV	1	1	13	56	80	121	153	124	129	50	25	4	293
	41-70 AVERAGE	0	1	29	192	473	723	779	626	490	187	62	5	3568
	STD DEV	1	2	14	60	72	116	133	129	123	58	28	4	301
	51-80 AVERAGE	0	1	29	213	476	719	822	650	484	195	69	7	3666
	STD DEV	0	2	17	62	78	112	147	134	114	53	32	5	299
	61-90 AVERAGE	0	2	33	217	446	728	855	659	462	206	75	7	3688
	STD DEV	1	2	16	67	84	134	147	116	96	58	32	4	279
	71-00 AVERAGE	0	1	32	213	449	715	820	623	452	216	76	7	3603
5806	STD DEV	0	2	15	64	92	131	150	108	86	57	33	5	296
Census Region-07 West South Central	31-00 AVERAGE	0	0	8	79	295	504	579	417	284	90	16	1	2273
	STD DEV	0	1	5	30	69	93	113	92	79	31	8	1	217
	31-60 AVERAGE	0	0	6	72	304	486	550	408	295	92	17	0	2230
	STD DEV	0	0	4	30	61	78	108	90	88	28	8	1	221
	41-70 AVERAGE	0	0	7	78	292	498	579	422	309	84	15	0	2285
	STD DEV	0	0	4	30	59	83	99	91	87	30	7	1	197
	51-80 AVERAGE	0	0	8	85	303	504	599	436	292	86	16	1	2330
	STD DEV	0	1	6	37	75	79	122	101	85	31	9	1	217
	61-90 AVERAGE	0	0	9	85	281	525	620	447	279	85	16	1	2348
	STD DEV	0	1	6	33	72	107	120	93	75	32	8	1	203
	71-00 AVERAGE	0	0	9	83	293	520	593	414	263	94	17	1	2286
5807	STD DEV	0	1	6	30	78	105	117	97	53	33	9	1	227



Heating Degree Days

Census Regions

State/Region	Element	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	ANNUAL
Census Region-08 Mountain	31-00 AVERAGE	17	29	130	349	670	915	969	760	667	426	228	85	5244
	STD DEV	7	10	33	53	82	86	107	97	83	67	44	24	279
	31-60 AVERAGE	15	26	120	336	672	893	983	784	683	416	225	84	5236
	STD DEV	6	6	24	48	85	86	123	111	74	62	51	26	284
	41-70 AVERAGE	17	29	131	344	663	910	979	769	706	431	228	92	5301
	STD DEV	5	10	36	62	81	74	103	103	80	66	41	25	231
	51-80 AVERAGE	17	32	134	350	675	920	978	763	697	447	235	85	5333
	STD DEV	5	11	38	55	72	88	94	94	87	58	42	23	236
	61-90 AVERAGE	18	32	142	360	666	944	979	759	673	436	237	84	5328
	STD DEV	5	12	38	62	66	88	92	77	91	72	36	23	260
	71-00 AVERAGE	19	30	134	360	676	928	951	737	633	426	233	82	5209
5808	STD DEV	9	11	31	45	84	88	94	77	73	72	39	23	295
Census Region-09 Pacific	31-00 AVERAGE	26	26	65	191	395	561	593	464	437	309	190	84	3342
	STD DEV	9	10	20	38	62	69	88	71	69	62	45	24	265
	31-60 AVERAGE	27	31	67	197	396	552	622	495	450	308	192	91	3428
	STD DEV	10	8	18	37	65	71	109	69	73	49	46	25	279
	41-70 AVERAGE	28	30	67	197	395	566	616	476	464	327	202	94	3461
	STD DEV	10	10	20	40	59	63	89	75	57	61	38	26	217
	51-80 AVERAGE	26	28	66	192	399	563	601	460	458	334	203	88	3417
	STD DEV	9	11	20	39	53	72	66	68	60	64	42	28	210
	61-90 AVERAGE	26	24	68	189	398	577	583	448	438	319	195	80	3343
	STD DEV	9	10	24	40	55	71	64	64	63	74	40	23	220
	71-00 AVERAGE	24	22	62	186	396	563	564	439	416	298	182	76	3226
5809	STD DEV	9	9	21	38	66	71	64	58	66	64	46	21	246
National Census Region Conterminous U.S.	31-00 AVERAGE	9	15	74	269	543	819	908	744	616	347	159	40	4543
	STD DEV	3	5	15	41	51	82	96	80	73	42	30	9	213
	31-60 AVERAGE	8	15	69	257	549	812	882	745	632	346	157	40	4510
	STD DEV	2	5	14	36	50	76	86	78	82	42	28	9	202
	41-70 AVERAGE	9	16	74	258	543	830	911	752	637	342	163	42	4577
	STD DEV	3	5	14	41	44	76	78	66	81	41	31	8	181
	51-80 AVERAGE	9	16	75	273	547	824	933	761	631	346	164	41	4620
	STD DEV	2	5	15	45	49	72	92	83	71	41	30	8	181
	61-90 AVERAGE	9	16	79	280	534	835	945	763	609	349	164	41	4622
	STD DEV	2	5	14	47	44	86	102	76	65	45	32	9	189
	71-00 AVERAGE	9	15	77	282	539	817	917	732	593	345	159	39	4524
5999	STD DEV	2	5	14	42	56	90	104	88	58	46	29	9	235