

Monthly Station Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971 - 2000

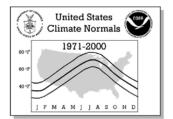




## 19 MASSACHUSETTS



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



Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971-2000

## MASSACHUSETTS Page 2

(This Page Intentionally Left Blank)

## **United States** Climate Normals 1971-2000 J F M A M J J A S O N D

#### CLIMATOGRAPHY OF THE UNITED STATES NO. 81

Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971-2000

#### **MASSACHUSETTS**

Page 3

#### **NOTES**

#### **Product Description:**

This Climatography includes 1971-2000 normals of monthly and annual maximum, minimum, and mean temperature (degrees F), monthly and annual total precipitation (inches), and heating and cooling degree days (base 65 degrees F). Normals stations include both National Weather Service Cooperative Network and Principal Observation (First-Order) locations in the 50 states, Puerto Rico, the Virgin Islands, and Pacific Islands.

#### Abbreviations:

No. = Station Number in State Map

WBAN ID = Weather Bureau Army Navy ID, if assigned

**Elements** = Input Elements (X=Maximum Temperature,

N=Minimum Temperature, P=Precipitation)

Call = 3-Letter Station Call Sign, if assigned

MAX = Normal Maximum Temperature (degrees Fahrenheit)

**MEAN** = Average of MAX and MIN (degrees Fahrenheit)

MIN = Normal Minimum Temperature (degrees Fahrenheit)

HDD = Total Heating Degree Days (base 65 degrees Fahrenheit)

CDD = Total Cooling Degree Days (base 65 degrees Fahrenheit)

Latitude = Latitude in degrees, minutes, and hemisphere (N=North, S=South) COOP ID = Cooperative Network ID (1:2=State ID, 3:6=Station Index) Longitude = Longitude in degrees, minutes, and hemisphere (W=West, E=East)

Elev = Elevation in feet above mean sea level

Flag 1 = \* if a published Local Climatological Data station

Flag 2 = + if WMO Fully Qualified (see *Note* below)

HIGHEST MEAN/YEAR = Maximum Mean Monthly Value/Year, 1971-2000

MEDIAN = Median Mean Monthly Value/Year, 1971-2000

LOWEST MEAN/YEAR = Minimum Mean Monthly Value/Year, 1971-2000

MAX OBS TIME ADJUSTMENT = Add to MAX to Get Midnight Obs. Schedule MIN OBS TIME ADJUSTMENT = Add to MIN to Get Midnight Obs. Schedule

Note: In 1989, the World Meteorological Organization (WMO) prescribed standards of data completeness for the 1961-1990 WMO Standard Normals. For full qualification, no more than three consecutive year-month values can be missing for a given month or no more than five overall values can be missing for a given month (out of 30 values). Stations meeting these standards are indicated with a '+' sign in Flag 2. Otherwise, stations are included in the normals if they have at least 10 year-month values for each month and have been active since January 1999 or were a previous normals station.

Map Legend: Numbers correspond to 'No.' in Station Inventory; Shaded Circles indicate Temperature and Precipitation Stations, Triangles (Point Up) indicate Precipitation-Only Stations, Triangles (Point Down) indicate Temperature-Only Stations, and Hexagons indicate stations with Flag 1 = \*.

#### Computational Procedures:

A climate normal is defined, by convention, as the arithmetic mean of a climatological element computed over three consecutive decades (WMO,1989). Ideally, the data record for such a 30-year period should be free of any inconsistencies in observational practices (e.g., changes in station location, instrumentation, time of observation, etc.) and be serially complete (i.e., no missing values). When present, inconsistencies can lead to a nonclimatic bias in one period of a station's record relative to another, yielding an "inhomogeneous" data record. Adjustments and estimations can make a climate record "homogeneous" and serially complete, and allow a climate normal to be calculated simply as the average of the 30 monthly values.

The methodology employed to generate the 1971-2000 normals is not the same as in previous normals, as it addresses inhomogeneity and missing data value problems using several steps. The technique developed by Karl et al. (1986) is used to adjust monthly maximum and minimum temperature observations of conterminous U.S. stations to a consistent midnight-to-midnight schedule. All monthly temperature averages and precipitation totals are cross-checked against archived daily observations to ensure internal consistency. Each monthly observation is evaluated using a modified quality control procedure (Peterson et al., 1998), where station observation departures are computed, compared with neighboring stations, and then flagged and estimated where large differences with neighboring values exist. Missing or discarded temperature and precipitation observations are replaced using a weighting function derived from the observed relationship between a candidate's monthly observations and those of up to 20 neighboring stations whose observations are most strongly correlated with the candidate site. For temperature estimates, neighboring stations were selected from the U.S. Historical Climatology Network (USHCN; Karl et al. 1990). For precipitation estimates, all available stations were potential neighbors, maximizing station density for estimating the more spatially variable precipitation values.

Peterson and Easterling (1994) and Easterling and Peterson (1995) outline the method for adjusting temperature inhomogeneities. This technique involves comparing the record of the candidate station with a reference series generated from neighboring data. The reference series is reconstructed using a weighted average of first difference observations (the difference from one year to the next) for neighboring stations with the highest correlation with the candidate. The underlying assumption behind this methodology is that temperatures over a region have similar tendencies in variation. If this assumption is violated, the potential discontinuity is evaluated for statistical significance. Where significant discontinuities are detected, the difference in average annual temperatures before and after the inhomogeneity is applied to adjust the mean of the earlier block with the mean of the latter block of data. Such an evaluation requires a minimum of five years between discontinuities. Consequently, if multiple changes occur within five years or if a change occurs very near the end of the normals period (e.g., after 1995), the discontinuity may not be detectable using this methodology.

The monthly normals for maximum and minimum temperature and precipitation are computed simply by averaging the appropriate 30 values from the 1971-2000 record. The monthly average temperature normals are computed by averaging the corresponding monthly maximum and minimum normals. The annual temperature normals are calculated by taking the average of the 12 monthly normals. The annual precipitation and degree day normals are the sum of the 12 monthly normals. Trace precipitation totals are shown as zero. Precipitation totals include rain and the liquid equivalent of frozen and freezing precipitation (e.g., snow, sleet, freezing rain, and hail). For many NWS locations, indicated with an '\*' next to 'HDD' and 'CDD' in the degree day table, degree day normals are computed directly from daily values for the 1971-2000 period. For all other stations, estimated degree day totals are based on a modification of the rational conversion formula developed by Thom (1966), using daily spline-fit means and standard deviations of average temperature as inputs.

Easterling, D.R, and T.C. Peterson, 1995: A new method for detecting and adjusting for undocumented discontinuities in climatological time series. Intl. J. Clim., 15, 369-377. 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, J. Clim. Appl. Met., 25, 145-160.

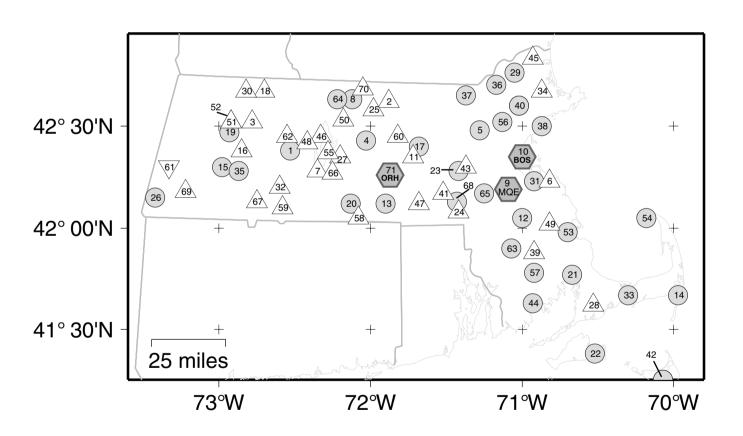
Peterson, T.C., and D.R. Easterling, 1994: Creation of homogeneous composite climatological reference series. Intl. J. Clim., 14, 671-679.

Peterson, T.C., R. Vose, R. Schmoyer, and V. Razuvaev, 1998: Global Historical Climatology Network (GHCN) quality control of monthly temperature data. Intl. J. Clim., 18, 1169-1179. Thom, H.C.S., 1966: Normal degree days above any base by the universal truncation coefficient, Month. Wea. Rev., 94, 461-465.

World Meteorological Organization, 1989: Calculation of Monthly and Annual 30-Year Standard Normals, WCDP-No. 10, WMO-TD/No. 341, Geneva: World Meteorological Organization.

Release Date: Revised 01/2002^ National Climatic Data Center/NESDIS/NOAA, Asheville, North Carolina

## 19 - MASSACHUSETTS



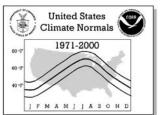
# United States Climate Normals 1971-2000 60 T 1971-3000

### **CLIMATOGRAPHY OF THE UNITED STATES NO. 81**

Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971-2000

### **MASSACHUSETTS**

	MAMJJAS										
No.	COOP ID	WRAN ID	Flements	Station Name	TATION INVENTORY		Longitude	Flev	Flag 1	Flag 2	
		***************************************			- Cuii				i iug i		
1	190120		XNP	AMHERST			72 32 W	150		+	
2	190190		P	ASHBURNHAM				1100		+	
3	190213			ASHFIELD			72 47 W	1250			
4	190408		XNP	BARRE FALLS DAM			72 02 W	910			
5	190535		XNP	BEDFORD			71 17 W	160		+	
6 7	190551		P	BEECHWOOD DELCHEDTOWN		42 14 N 42 17 N	70 49 W	62 560			
8	190562 190666		P XNP	BELCHERTOWN BIRCH HILL DAM			72 21 W 72 07 W	864			
9		14753	XNP	BLUE HILL OBS MIL	r∩n m∩r		72 07 W	630	*	+	
10	190730	14733	XNP		ND DOG	42 13 N	71 07 W	20	*	+	
11	190801	14/32	P	BOSTON LOGAN INTL BOYLSTON	AF BOS	42 22 N	71 43 W	630		'	
12	190860		XNP	BROCKTON			71 00 W	80		+	
13	190998		XNP	BUFFUMVILLE LAKE			71 54 W	500			
14	191386	14684	XNP	CHATHAM MUNICIPAL	AP COX			50		+	
15	191430		XNP	CHESTER 2	~	42 18 N	72 59 W	640			
16	191436		P	CHESTERFIELD				1345		+	
17	191561		XNP	CLINTON		42 24 N	71 41 W	400			
18	191611		P	COLRAIN		42 40 N	72 42 W	625			
19	191774		XNP	CUMMINGTON HILL		42 28 N	72 56 W	1610			
20	192107		XNP	EAST BRIMFIELD LA	KE	42 07 N	72 08 W	680		+	
21	192451		XNP	EAST WAREHAM		41 46 N	70 40 W	20		+	
22	192501		XNP	EDGARTOWN		41 23 N	70 31 W	20		+	
23	192975		XNP	FRAMINGHAM		42 17 N	71 25 W	171			
24	192997		P	FRANKLIN		42 05 N	71 25 W	240		+	
25	193052		P	GARDNER		42 35 N		1110		+	
26	193213		XNP	GREAT BARRINGTON	5 SW	42 09 N	73 25 W	817		+	
27	193401			HARDWICK		42 21 N	72 12 W	970		+	
28	193471		P	HATCHVILLE		41 37 N	70 32 W	70		+	
29	193505		XNP	HAVERHILL		42 46 N	71 04 W	18		+	
30	193549		P	HEATH		42 40 N	72 49 W	1590		+	
31	193624		XNP	HINGHAM		42 14 N	70 55 W	30 98		+	
32 33	193702		P XNP	HOLYOKE		42 12 N 41 40 N	72 36 W	98 50		+	
34	193821 193876		ANP P	HYANNIS IPSWICH			70 18 W 70 52 W	80		+	
35	193985		XNP	KNIGHTVILLE DAM			70 52 W	630		+	
36	194105		XNP	LAWRENCE		42 17 N	72 32 W	60		+	
37	194313		XNP	LOWELL		42 39 N	71 10 W	110			
38	194502		XNP	MARBLEHEAD		42 30 N	70 52 W	96			
39	194711		P	MIDDLEBORO		41 53 N	70 55 W	60		+	
40	194744		XNP	MIDDLETON		42 36 N	71 01 W	90		+	
41	194760		P	MILFORD		42 10 N	71 31 W	280		+	
42	195159	14756	XNP	NANTUCKET AP	ACK	41 15 N	70 04 W	43			
43	195175		P	NATICK		42 18 N	71 22 W	150			
44	195246		XNP	NEW BEDFORD		41 38 N	70 56 W	70		+	
45	195285		P	NEWBURYPORT 3 WNW				18		+	
46	195306		P	NEW SALEM			72 20 W			+	
47	195524		P	NORTHBRIDGE 2			71 41 W	315		+	
48	196251		P	PELHAM			72 24 W				
49	196262		P	PEMBROKE			70 49 W	69			
50	196322		P	PETERSHAM 3 N			72 11 W				
51	196425		P	PLAINFIELD			72 55 W				
52	196435		P	PLAINFIELD 2			72 55 W				
53	196486		XNP	PLYMOUTH-KINGSTON			70 42 W	45		+	
54	196681		XNP	PROVINCETOWN			70 11 W	20			
55 56	196699		P	QUABBIN INTAKE			72 17 W 71 08 W	550 90		+	
57	196783 196938		XNP XNP	READING ROCHESTER			71 08 W	60		+	
58	197627		ANP P	SOUTHBRIDGE 3 SW			70 55 W	720		1	
59	198046		P	SPRINGFIELD			72 05 W	190			
60	198154		P	STERLING			72 33 W	480			
61	198181		XN	STOCKBRIDGE			73 20 W	860			
62	198278		P	SUNDERLAND			72 33 W	240			
63	198367		XNP	TAUNTON			71 04 W	20		+	
64	198573		XNP	TULLY LAKE			72 13 W	690			
65	198757		XNP	WALPOLE 2			71 15 W	165		+	
66	198793		P	WARE			72 15 W	410		+	
67	199191		P	WESTFIELD			72 45 W	120			
68	199316		XNP	WEST MEDWAY		42 08 N	71 26 W	210		+	
69	199371		P	WEST OTIS		42 11 N	73 13 W	1295			
70	199780		P	WINCHENDON 2		42 41 N	72 03 W	1020			



Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971-2000

### **MASSACHUSETTS**

No.	COOP ID	WBAN ID F	lements	Station Name	STATION INVENT	ORY Call	Latitude	Longitude	Flev	Flag 1	Flag 2
71	199923			WORCESTER RGNL	AP			71 53 W		*	+

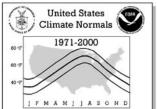
# United States Climate Normals 1971-2000 60 T 1971-3000

### **CLIMATOGRAPHY OF THE UNITED STATES NO. 81**

Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days
1971-2000

### **MASSACHUSETTS**

							TEME	PERATU	RE NOF	RMALS	Degree	s Fahrer	nheit)		
No.	Station Name	Elemen	t JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NÓV		ANNUAL
001	AMHERST	MAX MEAN	33.4	36.1 24.7	45.7 34.8	57.6 45.7	69.8 57.4	78.1 66.2	83.2	80.9	73.1 60.9	61.8 49.1	49.4 38.9	38.1 28.3	58.9 47.4
		MIN	11.2	13.2	23.8	33.8	45.0	54.2	59.1	57.0	48.7	36.4	28.3	18.4	35.8
004	BARRE FALLS DAM	MAX	31.6	34.3	43.3	54.9	67.2	75.4	80.0	78.1	70.2	59.4	47.7	36.1	56.5
		MEAN MIN	21.1	23.4 12.5	32.6 21.9	43.4	54.3 41.3	62.8 50.2	67.5 55.0	65.7 53.2	57.2 44.1	46.7 33.9	37.6 27.5	26.6 17.0	44.9 33.2
005	BEDFORD	MAX	35.0	38.0	46.8	58.0	69.4	77.5	82.7	80.7	72.4	61.7	50.7	39.6	59.4
		MEAN	25.4	28.1	36.7	46.9	57.6	66.1	71.5	69.8	61.3	50.4	41.0	30.6	48.8
008	BIRCH HILL DAM	MIN MAX	15.7 31.8	18.2	26.6 43.9	35.8 55.5	45.8 67.9	54.7 76.2	60.3	58.9 79.1	50.2	39.0 59.6	31.2 47.5	21.5	38.2 57.0
000	BIRCH HILL DAM	MEAN	19.7	22.3	32.1	43.0	54.3	62.9	67.9	65.9	57.4	46.0	36.9	25.5	44.5
		MIN	7.6	9.7	20.3	30.4	40.6	49.6	54.7	52.7	43.8	32.3	26.2	15.0	31.9
009	BLUE HILL OBS MILTON	MAX MEAN	33.8	36.3 28.3	44.8 36.3	55.5 46.3	67.0 57.0	75.5 65.7	81.2 71.6	78.9 69.9	71.0 62.1	60.3 51.6	49.3 41.8	38.6 31.2	57.7 49.0
		MIN	18.1	20.3	27.8	37.1	47.0	55.9	62.0	60.9	53.2	42.9	34.2	23.8	40.3
010	BOSTON LOGAN INTL AP	MAX	36.5	38.7	46.3	56.1	66.7	76.6	82.2	80.1	72.5	61.8	51.8	41.7	59.3
		MEAN	29.3	31.5 24.2	38.9 31.5	48.3	58.5 50.2	68.0 59.4	73.9	72.3 64.5	64.7 56.8	54.1 46.4	44.9 37.9	34.8 27.8	51.6 43.9
012	BROCKTON	MIN MAX	37.9	40.0	48.1	58.0	69.1	77.8	83.2	81.3	73.6	63.4	52.8	42.4	60.6
		MEAN	27.9	30.1	38.2	47.3	57.5	66.4	72.1	70.5	62.2	51.6	42.5	32.8	49.9
010		MIN	17.8	20.1	28.2	36.5	45.9	54.9	60.9	59.6	50.7	39.8	32.1	23.2	39.1
013	BUFFUMVILLE LAKE	MAX MEAN	33.9	36.4 25.2	45.6 34.7	56.7 45.3	68.5 56.3	76.6 65.0	81.5 70.2	79.5 68.3	72.0 60.1	61.4 48.9	50.0 39.7	38.4 28.5	58.4 47.1
		MIN	11.5	14.0	23.8	33.9	44.1	53.4	58.8	57.1	48.2	36.3	29.4	18.6	35.8
014	CHATHAM MUNICIPAL AP	MAX	37.7	37.7	42.8	50.4	59.1	68.0	74.6	74.2	68.7	59.7	50.9	42.6	55.5
		MEAN MIN	30.9	31.0 24.3	36.8 30.7	44.8 39.1	53.5 47.9	62.0 56.0	68.3	68.0 61.8	62.8 56.9	53.5 47.2	45.0 39.1	36.2 29.7	49.4 43.2
015	CHESTER 2	MAX	31.1	35.7	46.2	60.2	73.1	80.3	85.5	82.3	73.4	63.5	50.8	36.8	59.9
		MEAN	19.0	23.2	34.4	46.4	58.6	66.5	71.4	68.8	59.4	48.7	39.3	26.2	46.8
017	CLINTON	MIN	6.9	10.6 35.5	22.5	32.6 55.1	44.0 67.6	52.6 76.3	57.3 81.0	55.3 79.5	45.4 71.0	33.9	27.7 49.7	15.6 38.3	33.7 57.7
017	CLINION	MAX MEAN	24.2	26.2	35.2	46.1	57.7	66.7	71.9	79.5	61.4	50.0	49.7	30.0	48.4
		MIN	15.2	16.9	26.3	37.1	47.8	57.1	62.7	60.6	51.7	39.7	32.0	21.6	39.1
019	CUMMINGTON HILL	MAX	28.6	31.4	40.4	52.2	64.8	72.7	77.5	75.5	67.9	57.4	45.1	33.4	53.9
		MEAN MIN	19.9 11.2	22.4 13.3	31.1 21.7	42.4 32.6	54.5 44.2	62.8 52.9	67.6 57.7	65.7 55.9	57.8 47.7	47.2 37.0	36.8 28.4	25.2 17.0	44.5 35.0
020	EAST BRIMFIELD LAKE	MAX	33.4	35.9	45.2	56.6	68.8	76.9	81.7	79.6	71.6	60.9	49.4	38.1	58.2
		MEAN	22.8	24.9	34.3	44.9	56.1	64.7	69.7	68.0	59.9	48.8	39.4	28.7	46.9
021	EAST WAREHAM	MIN MAX	12.2	13.9	23.3	33.2	43.3	52.5 73.6	57.7 79.6	56.3 78.4	48.1	36.6	29.4	19.3	35.5 58.1
021	DIET WINDING	MEAN	28.7	30.0	37.2	45.9	56.3	65.6	71.9	70.7	63.0	52.3	43.2	33.9	49.9
		MIN	20.3	21.7	29.2	37.5	47.7	57.5	64.1	62.9	54.5	43.3	35.0	25.7	41.6
022	EDGARTOWN	MAX MEAN	38.9	39.6 31.4	45.8 37.8	54.2 46.0	64.0 55.6	72.9 64.6	78.8	78.1 70.1	72.0 63.8	62.5 53.8	53.4 45.3	44.0 35.9	58.7 50.5
		MIN	22.4	23.2	29.8	37.7	47.1	56.2	62.2	62.0	55.5	45.1	37.2	27.8	42.2
023	FRAMINGHAM	MAX	35.5				70.1	78.9	84.0	82.2	74.1	63.2	51.5		60.3
		MEAN MIN	1	28.5 18.8		48.3	59.2 48.3	68.2 57.5	73.4	71.6 60.9	63.2 52.2	51.8 40.4	42.2 32.9	31.3	50.1 39.8
026	GREAT BARRINGTON 5 SW	MAX		33.9		56.0	68.2	76.4	81.2		70.8	59.5	47.9	36.4	57.0
		MEAN	21.1	23.1	32.7	44.0	55.5	64.0	68.6	66.5	58.2	46.8	37.7		45.4
020	HAVERHILL	MIN	10.5	12.3	22.0 46.7	31.9 57.5		51.6 77.8	55.9 83.5	53.9 81.2	45.6 72.8	34.0 62.0	27.5	17.3 39.7	33.8 59.4
029	HAVERHILL	MAX MEAN	25.3		36.5	46.4		66.2	72.2	70.3	61.7	50.7	41.0	39.7	48.8
		MIN	1	17.7		35.3	45.2	54.5	60.8	59.3	50.5	39.3	31.5	21.3	38.1
031	HINGHAM	MAX		38.9	46.6	56.7	67.4	75.9	81.4	79.1	71.8	62.0	51.8	41.5	59.2
		MEAN MIN		30.5	38.0 29.3	47.2 37.6	57.3 47.1	66.1 56.3	71.8	70.0 60.9	62.5 53.2	52.2 42.4	43.2 34.6	33.5 25.4	50.1 40.9
033	HYANNIS	MAX	37.2		43.8	52.0	62.0	71.5	77.8	76.8	70.5	60.5		42.4	57.0
		MEAN	29.2		36.6	45.0	54.9	64.3	70.5	69.7		52.5	44.1	34.7	49.5
035	KNIGHTVILLE DAM	MIN MAX	21.2	22.1 35.0	29.3	37.9 56.3	47.8 68.9	57.1 76.9	63.2	62.6 79.7	55.3 71.7	44.4	36.7 48.5	27.0 36.5	42.1 57.7
000	TELLOTT VILLE DAM	MEAN	21.5		32.6	44.1	55.3	64.0	68.9	67.1	58.6	47.4	38.2	27.0	45.7
		MIN	10.4	12.0	21.2	31.8	41.7	51.0	56.0	54.5	45.4	34.1	27.8	17.5	33.6
036	LAWRENCE	MAX	34.5	37.2 27.0	45.7	56.6 45.9	68.4 57.2	77.4 66.1	82.9 71.8	81.4 69.9	72.8 61.3	61.9 50.0	51.1 41.2	39.7 30.4	59.1 48.4
		MEAN MIN	ı	16.8	35.5 25.2	35.1	45.9	54.8	60.6	58.3	49.8	38.1	31.2	21.1	37.6
037	LOWELL	MAX	33.0	36.5	45.9	58.0	69.8	78.8	84.5	81.9	73.6	61.8	49.4	38.0	59.3
		MEAN		27.1		46.6	57.3	66.5	72.4		61.7	50.0	40.0	29.5	48.4
		MIN	14.1	17.7	24.8	35.1	44.7	54.1	60.2	58.6	49.7	38.1	30.6	21.0	37.4



Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971-2000

### **MASSACHUSETTS**

No. Station Name	Elemen	t JAN	FEB	MAR	APR	TEMF May	PERATU JUN	RE NOF	RMALS AUG	(Degree SEP	s Fahrer OCT	nheit) NOV	DEC	ANNUAL
038 MARBLEHEAD	MAX	37.1	39.7	46.6	56.8	67.2	76.3	82.1	80.5	73.0	62.4	52.2	41.9	59.7
	MEAN	28.8	31.2	38.2	47.6	57.6	66.9	72.6	71.3	63.9	53.7	44.5	34.3	50.9
040 MIDDLETON	MIN MAX	20.4	22.7	29.7 47.9	38.3	48.0 69.2	57.5 78.1	63.0	62.1 81.7	54.7 74.6	45.0 64.4	36.8 53.1	26.6 42.4	42.1 60.9
040 MIDDLEION	MEAN	27.6	29.8	37.7	47.5	58.1	67.2	72.7	71.1	63.7	53.4	43.8	33.1	50.5
	MIN	17.3	19.2	27.4	36.9	47.0	56.2	62.0	60.5	52.8	42.4	34.4	23.7	40.0
042 NANTUCKET AP	MAX	39.1	39.1	44.4	51.2	60.4	69.0	75.4	75.6	70.3	61.2	52.8	44.4	56.9
	MEAN	32.1	32.4	37.7	44.7	53.3	62.1	68.9	69.1	63.1	54.2	45.9	37.4	50.1
	MIN	25.1	25.7	31.0	38.1	46.2	55.2	62.4	62.6	55.9	47.2	38.9	30.3	43.2
044 NEW BEDFORD	MAX	36.9	38.5	46.0	56.0	67.3	77.1	83.1	81.9	74.3	63.3	52.2	41.9	59.9
	MEAN	28.5	30.1	37.5	47.1	57.9	67.6	74.2	73.3	65.8	54.7	44.4	33.8	51.2
OF 2 DI VMOLIMITI MENGGMON	MIN	38.3	21.6	28.9 47.6	38.1 56.4	48.4	58.1 76.7	65.2 82.0	64.6 79.9	57.2 72.8	46.0	36.6 53.1	25.7 43.1	42.5 60.0
053 PLYMOUTH-KINGSTO	N MAX MEAN	29.3	31.3	38.3	46.9	56.9	66.4	72.3	79.9	63.4	53.3	44.6	34.6	50.7
	MIN	20.3	22.2	29.0	37.3	46.5	56.1	62.5	61.8	53.9	43.7	36.1	26.1	41.3
054 PROVINCETOWN	MAX	37.4	37.4	44.0	52.2	62.4	72.0	78.9	77.3	70.4	60.3	50.6	42.9	57.2
	MEAN	30.2	30.1	36.5	44.8	55.0	64.0	70.8	69.5	62.8	52.6	44.4	35.6	49.7
	MIN	22.9	22.7	28.9	37.3	47.6	56.0	62.7	61.7	55.2	44.9	38.1	28.3	42.2
056 READING	MAX	35.2	38.1	46.7	57.7	68.8	77.0	82.5	80.5	72.4	61.8	50.9	39.8	59.3
	MEAN	25.5	28.1	36.5	46.4	57.0	65.8	71.5	69.8	61.4	50.5	41.1	30.7	48.7
AF7 DAGUEGEER	MIN	15.7	18.0	26.2	35.1	45.1	54.6	60.4	59.0	50.4	39.1	31.2	21.6	38.0
057 ROCHESTER	MAX MEAN	37.7	39.5 29.9	47.4 38.0	56.9 47.1	68.0 57.5	77.2 66.6	82.8	81.1 70.9	73.5 63.1	62.7 52.2	52.5 43.5	42.4	60.1 50.2
	MEAN MIN	18.5	29.9	28.6	37.3	46.9	55.9	61.7	60.6	52.6	41.7	34.4	24.7	40.3
061 STOCKBRIDGE	MAX	32.5	35.8	45.1	57.6	69.6	77.4	81.3	79.3	71.2	60.1	48.4	36.6	57.9
OUI BIOCKBRIDGE	MEAN	22.6	25.1	34.2	45.6	56.5	64.6	69.1	67.5	59.4	48.5	39.0	27.8	46.7
	MIN	12.7	14.3	23.3	33.5	43.4	51.8	56.9	55.6	47.6	36.9	29.5	18.9	35.4
063 TAUNTON	MAX	37.0	39.0	47.5	58.0	69.2	77.8	83.0	81.3	73.7	62.5	52.0	41.6	60.2
	MEAN	27.4	29.4	38.0	47.6	58.0	66.9	72.2	70.9	62.9	51.5	42.4	32.5	50.0
	MIN	17.8	19.7	28.5	37.1	46.8	55.9	61.4	60.5	52.0	40.4	32.7	23.4	39.7
064 TULLY LAKE	MAX	31.7	35.5	44.8	57.5	70.5	78.9	83.9	81.6	72.5	60.7	47.7	35.6	58.4
	MEAN	20.5	23.4	33.1	44.6	56.4	65.2	70.2	68.3	59.4	48.0	37.9	26.3	46.1
065 1111 201 2	MIN	9.2	11.2	21.3	31.7	42.3	51.5	56.4	54.9	46.3	35.3	28.1	16.9	33.8
065 WALPOLE 2	MAX	36.0	38.7	47.4 37.6	58.4 47.5	69.7 58.2	77.7 66.8	82.8	80.6 70.4	72.5	61.7 51.2	50.8 41.7	40.5 31.9	59.7 49.7
	MEAN MIN	26.9 17.7	29.3 19.8	27.8	36.6	46.6	55.9	61.6	60.2	62.2 51.8	40.6	32.5	23.2	39.5
068 WEST MEDWAY	MAX	37.5	40.2	48.7	59.1	70.3	79.0	84.3	82.5	74.8	64.1	53.0	41.9	61.3
OUG WEET HEEMIT	MEAN	25.4	28.0	36.8	46.9	57.6	66.8	72.3	70.5	62.0	50.6	41.5	31.0	49.1
	MIN	13.3	15.8	24.9	34.6	44.8	54.5	60.3	58.5	49.1	37.0	29.9	20.1	36.9
071 WORCESTER RGNL A	P MAX	31.4	34.1	43.0	54.4	66.3	74.4	79.3	77.1	69.0	58.4	47.1	36.2	55.9
	MEAN	23.6	26.0	34.3	45.0	56.3	64.7	70.1	68.3	60.2	49.6	39.6	28.9	47.2
	MIN	15.8	17.8	25.6	35.5	46.2	55.0	60.8	59.5	51.3	40.7	32.0	21.6	38.5
		-			-			-			-			

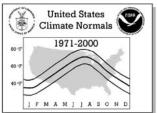
# United States Climate Normals 1971-2000 60 97 40 97

### **CLIMATOGRAPHY OF THE UNITED STATES NO. 81**

Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971-2000

### **MASSACHUSETTS**

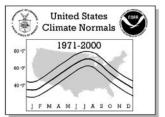
No.	Station Name	JAN	FEB	MAR	APR	PREC MAY	JUN	ON NOF	RMALS AUG	(Total in SEP	Inches) OCT	NOV	DEC	ANNUAL
001	AMHERST	3.76	2.85	3.59	3.83	4.11	3.81	3.95	4.10	4.06	3.96	3.93	3.62	45.57
	ASHBURNHAM	4.22	3.28	4.43	4.30	4.11	4.06	4.05	4.28	3.96	4.30	4.45	4.13	49.57
	ASHFIELD BARRE FALLS DAM	4.33	3.61 2.65	4.65 3.56	4.82 3.87	5.06	4.37	4.23	4.48	4.30 3.82	4.44 4.16	4.80	4.35	53.44 45.57
	BEDFORD	4.24	3.33	4.21	3.99	3.76	3.61	3.83	3.54	3.84	4.14	4.39	4.07	46.95
	BARRE FALLS DAM BEDFORD BEECHWOOD BELCHERTOWN BIRCH HILL DAM	4.79	4.08	4.67	4.60	3.54	3.37	3.44	4.22	4.10	4.45	4.91	4.52	50.69
007	BELCHERTOWN	3.99	2.94	3.86	3.88	4.25	4.08	4.41	4.87	4.24	4.11	4.00	3.59	48.22
			2.75	3.76	3.73	3.70	3.83	4.24	4.04	3.54	3.94	4.16	3.64	45.16
	BLUE HILL OBS MILTON BOSTON LOGAN INTL AP	4.78 3.92	4.06	4.79	4.32 3.60	3.79	3.93	3.74	4.06	4.13 3.47	4.42 3.79	4.64	4.53	51.19 42.53
	BOYLSTON LOGAN INIL AP	4.34	3.25	4.12	4.11	3.24	3.58	3.88	4.03	4.13	4.51	4.23	3.73	47.94
012	PDOCKTOM	4 20	3.60	4.33	4.18	3.48	3.52	3.65	4.27	3.98	4.25	4.42	4.37	48.25
013	BUFFUMVILLE LAKE CHATHAM MUNICIPAL AP CHESTER 2 CHESTERFIELD	4.41	3.20	4.35	4.21	3.70	3.85	4.16	4.03	4.10	4.35	4.49	4.01	48.86
014	CHATHAM MUNICIPAL AP	4.23	3.98	4.14	3.95	3.71	3.44	3.38	3.33	3.91	4.12	3.89	4.63	46.71
015	CHESTER 2	4.52	3.83	5.16	4.98	6.11	5.50	5.70 4.47	5.48	5.01	5.00 4.29	5.35	5.01	61.65
	CHESTERFIELD CLINTON COLRAIN	4.07 4.20	3.35 3.48	4.32	4.28 4.36	3.94	4.33	3.80	4.65 4.26	4.25 4.11	4.29	4.48	3.94	51.19 49.13
010	COLRAIN	2 00	3.51	4.69	4.71	4.37	4.71	4.23	3.99	4.43	4.45	4.51	4.16	51.66
019	CUMMINGTON HILL EAST BRIMFIELD LAKE EAST WAREHAM	3.63	3.11	3.69	3.97	4.86	4.08	4.52	4.65	3.98	4.13	4.40	3.69	48.71
020	EAST BRIMFIELD LAKE	4.34	3.14	4.26	4.18	3.69	3.69	3.73	3.92	3.99	4.16	4.29	4.02	47.41
021	EAST WAREHAM	4.54	3.72	4.56	4.39	3.73	3.57	3.23	4.07	4.06	3.89	4.52	4.49	48.77
	EDGARTOWN FRAMINGHAM FRANKLIN	4.09 4.26	3.29 3.17	4.48	4.25 4.01	3.55	3.51	3.10	3.96 3.74	3.48 3.64	3.95 4.03	4.12	4.28	46.06 45.87
	FRANKLIN	4 20	3.47	4.31	4.42	3.67	3.82	3.88	4.35	4.23	4.43	4.45	4.31	50.09
025	GARDNER	4.08	3.20	4.07	4.07	3.74	3.84	3.93	4.08	3.60	3.93	4.11	3.82	46.47
026	GREAT BARRINGTON 5 SW HARDWICK	3.70	3.03	3.60	3.85	5.00	4.18	4.16	4.63	4.07	4.00	4.12	3.64	47.98
027	HARDWICK	4.18	3.14	4.10	3.92	4.13	4.00	4.17	4.66	4.14	4.10	4.32	3.87	48.73
	HATCHVILLE	4.21	3.50	4.41	4.40	3.48	3.82	3.16	3.92	3.91	4.41	4.30	4.46	47.98
	HAVERHILL HEATH	3.87 4.13	3.32	4.16 4.41	4.33	3.86 4.82	3.61 4.68	3.44 4.32	3.50 4.57	3.97 4.08	4.31 4.52	4.46 4.42	4.05	46.88 51.67
	HINGHAM	4.80	4.01	4.69	4.26	3.76	3.47	3.51	4.17	3.75	4.41	4.66	4.39	49.88
	HOLYOKE	3.58	2.71	3.57	3.84	4.18	3.93	4.07	4.08	4.01	3.98	3.84	3.38	45.17
	HATCHVILLE HAVERHILL HEATH HINGHAM HOLYOKE HYANNIS TDSWICH	4.06	3.29	3.94	3.76	3.23	3.21	2.81	3.50	3.33	3.91	3.87	4.12	43.03
	IPSWICH	4.33	3.78	4.39	4.51	3.44	3.74	3.41	3.27	3.93	4.23	4.93	4.50	48.46
	IPSWICH KNIGHTVILLE DAM LAWRENCE LOWELL MARBLEHEAD MIDDLEBORO MIDDLETON MILFORD NANTUCKET AP NATICK NEW BEDFORD	3.98 3.92	3.25 3.17	4.24	4.21 4.06	4.40 3.67	3.58 3.46	3.97	4.29 3.18	3.95 3.78	4.10 3.96	4.18	3.92	48.07 44.09
	LOWELL	3.79	2.90	3.52	3.84	3.37	3.68	3.24	3.26	3.64	3.93	4.34	3.63	43.14
	MARBLEHEAD	4.14	3.42	4.14	4.19	3.40	2.95	3.10	3.46	4.03	4.22	4.50	3.96	45.51
	MIDDLEBORO	4.54	3.74	4.54	4.40	3.43	3.57	3.82	3.85	4.14	3.95	4.54	4.59	49.11
	MIDDLETON	3.80	3.22	3.88	4.17	3.61	3.58	3.50	3.35	3.71	4.12	4.48	3.96	45.38
	MILFORD NANTUCKET AP	4.20 4.12	3.44 2.71	4.09	4.15 3.29	3.79 3.07	3.76 2.61	3.42 2.03	4.01 2.74	3.95 2.71	4.39 2.98	4.55 3.96	3.93 3.74	47.68 37.43
	NATICK	3.93	3.21	3.83	3.29	3.68	3.40	3.63	3.94	3.66	4.09	4.38	3.74	45.45
	NEW BEDFORD	4 60	4.01		4.37	3.69	3.95	3.54	4.55	3.89	3.97	4.66	4.77	50.77
	NEWBURYPORT 3 WNW	4.08	3.31			3.60			3.27		4.29			46.88
	NEW SALEM	4.67			4.77				5.06					56.07
	NORTHBRIDGE 2 PELHAM		3.36			3.56 4.17			3.93 4.21		4.15 4.20	4.37 4.11	3.89	47.00 47.59
	PEMBROKE		4.47			4.17	3.55		4.21		4.62	5.37	4.69	54.03
	PETERSHAM 3 N		2.86			3.93	4.01		4.34		3.89	4.11	3.57	46.16
	PLAINFIELD	4.06	3.47	4.23	4.13	5.04	4.02		4.47	4.00	4.12	4.28	3.97	50.22
	PLAINFIELD 2		2.65		4.19	4.56	4.74		4.41	4.10	4.34	4.49	3.79	49.02
	PLYMOUTH-KINGSTON PROVINCETOWN		4.11			3.76	3.62	3.38	3.95	4.63	4.29	4.70	4.48	51.06 41.95
	QUABBIN INTAKE		3.01		3.54	2.98	3.14	2.75	3.11 4.38	3.72	3.61 4.03	4.38	3.83	41.95
	READING		3.57		4.17	3.85	3.64			3.82	4.37	4.64	4.36	48.31
	ROCHESTER		3.51			3.66	3.79			4.18	4.00		4.68	49.89
	SOUTHBRIDGE 3 SW		3.49		4.58	4.02	4.25		4.29	4.46	4.76	4.75	4.44	52.76
	SPRINGFIELD		2.98			4.01	4.11	4.15		3.79	3.88	3.81	3.61	45.68
	STERLING SUNDERLAND		3.57		4.58	4.30	4.24	3.85 4.23	4.08	4.18 3.67	4.46 4.10	4.69	4.20 3.58	51.25 45.98
	TAUNTON		3.63			3.91	3.41	3.95	3.97		3.93	4.48	4.19	48.34
	TULLY LAKE		2.88			3.91		4.30		3.74	3.87	4.02	3.61	46.14
	WALPOLE 2		3.45		4.14	3.38	3.42	3.63	4.07	3.78	3.98	4.29	4.19	46.58
	WARE		2.91			4.17	3.93	4.35	4.51	4.09	4.12	3.87	3.62	47.20
	WESTFIELD		3.06	4.07		4.26	3.83	4.02	4.55	4.03	4.42	4.12	3.98	48.91
	WEST MEDWAY		3.40			3.59 4.31	3.83 4.02		4.20 4.56	4.12	4.26 3.99	4.60	4.05 3.74	48.75 46.60
	WEST OTIS	3.67	2. X /											



Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971-2000

## **MASSACHUSETTS**

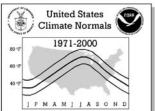
					PREC	IPITATI	ON NO	RMALS	(Total in	Inches)			ANNUAL
No. Station Name													
071 WORCESTER RGNL AP	4.07	3.10	4.23	3.92	4.35	4.02	4.19	4.09	4.27	4.67	4.34	3.80	49.05



Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971-2000

### **MASSACHUSETTS**

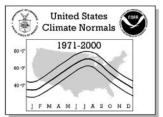
									== 5.43	(a / T ·	1)				
No.	Station Name	Element	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	ANNUAL
001	AMHERST	HDD CDD	1325 0	1131	938 0	580 0	250 14	50 86	5 196	16 138	142 18	494 0	785 0	1140 0	6856 452
004	BARRE FALLS DAM	HDD CDD	1362	1164	1005	650 0	337	103 37	23 100	56 77	239	569 0	822	1193	7523 223
005	BEDFORD	HDD CDD	1229	1033	878 0	544 0	239	55 88	5 206	10 159	133 23	455 0	721 0	1068	6370 485
008	BIRCH HILL DAM	HDD	1405	1198	1021	663 0	336	106	23 113	48	235	591 0	845	1225	7696
009	BLUE HILL OBS MILTON	CDD HDD*	1207	1034	894	562	271	44 74	9	22	138	422	698	1040	240 6371
010	BOSTON LOGAN INTL AP	CDD* HDD*	1104	951	815	503	21 233	93 48	215	173	49 84	3 4 4	0 604	932	558 5630
012	BROCKTON	CDD* HDD	1151	978	832	533	32 243	139 50	282	235	76 116	7 417	1 677	999	777 6008
013	BUFFUMVILLE LAKE	CDD HDD	1312	1115	938	0 591	9 278	90 66	223	176 23	30 164	1 500	760	1130	529 6886
014	CHATHAM MUNICIPAL AP	CDD HDD	1058	952	0 875	608	7 357	66 110	168 16	126 12	17 89	0 359	601	0 894	384 5931
015	CHESTER 2	CDD HDD	0 1425	0 1172	0 951	0 557	0 222	20 55	116 7	104 23	24 181	1 506	0 773	0 1203	265 7075
017	CLINTON	CDD HDD	0 1264	0 1086	0 923	0 567	23 242	99 60	205 5	140 18	13 140	0 460	0 725	0 1086	480 6576
019	CUMMINGTON HILL	CDD HDD	0 1399	0 1195	0 1053	0 677	15 333	111 105	216 24	175 48	30 220	1 552	0 849	0 1234	548 7689
020	EAST BRIMFIELD LAKE	CDD HDD	0 1308	0 1123	0 954	0 603	7 283	38 68	104	70 24	3 167	0 503	0 769	0 1126	222 6936
021	EAST WAREHAM	CDD HDD	0 1126	0 981	0 862	0 575	6 274	58 53	154 3	116 6	12 97	0 395	0 654	0 965	346 5991
	EDGARTOWN	CDD HDD	0	0 941	0 843	0 571	3 293	70 64	214	180	35 80	1 349	0 592	902	503 5713
023	FRAMINGHAM	CDD HDD	0	0	0 851	0 502	1 197	51 33	178 1	163 4	41 95	2 411	0 684	0	436 6060
		CDD	0	0	0	0	16	128	260	207	39	1	0	0	651
026	GREAT BARRINGTON 5 SW	HDD CDD	1363	1173	1002	632	304	87 57	21 131	44 89	212	566 0	820	1182	7406 292
029	HAVERHILL	HDD CDD	1233	1044	885 0	558 0	261 13	63 97	8 229	15 178	132 32	445 1	720 0	1071	6435 550
031	HINGHAM	HDD CDD	1137 0	968 0	837 0	535 0	246 6	51 85	4 213	6 162	105 29	399 1	654 0	978 0	5920 496
033	HYANNIS	HDD CDD	1110 0	982 0	882 0	601 0	314 0	69 48	4 176	8 155	97 33	391 1	628 0	940 0	6026 413
035	KNIGHTVILLE DAM	HDD CDD	1351 0	1162 0	1005 0	629 0	307 6	81 49	12 130	33 97	200 5	547 0	806 0	1179 0	7312 287
036	LAWRENCE	HDD CDD	1256 0	1065 0	916 0	574 0	251 8	61 94	3 213	13 163	143 32	467 0	717 0	1073 0	6539 510
037	LOWELL	HDD CDD	1285 0	1062	919 0	554 0	247 7	52 96	2 231	9 171	128 27	467 0	749 0	1101	6575 532
038	MARBLEHEAD	HDD CDD	1123	947	833	523 0	237	41 97	1 235	3 198	77 43	352 2	615 0	952 0	5704 582
040	MIDDLETON	HDD CDD	1161	987 0	848	526 0	223 9	46 110	2 238	4 194	83 43	362 2	637 0	989	5868 596
042	NANTUCKET AP	HDD	1020	913	846	611	363	119	19	13	98	342	575	857	5776
044	NEW BEDFORD	CDD HDD	1135	979	0 854	538	233	32	140	141	40 52	7 325	0 617	967	361 5734
053	PLYMOUTH-KINGSTON	CDD HDD	1107	943	0 828	0 546	259	111 50	284	256	74 91	4 365	613	943	740 5754
054	PROVINCETOWN	CDD HDD	1080	980	0 885	608	313	91 83	228 10	187	41 106	386	0 619	911	555 5994
056	READING	CDD HDD	0 1226	0 1035	0 885	0 558	2 257	53 59	190 5	151 10	39 131	1 453	0 719	0 1063	436 6401
057	ROCHESTER	CDD HDD	0 1144	0 982	0 838	0 537	7 244	82 47	204	157 7	22 98	0 400	0 648	0 975	472 5922
061	STOCKBRIDGE	CDD HDD	0 1315	0 1119	0 954	0 584	10 273	94 65	226 10	188 27	40 177	3 512	0 781	0 1154	561 6971
063	TAUNTON	CDD HDD	0 1167	0 999	0 838	0 522	9 226	53 39	138 2	103 6	8 102	0 422	0 680	0 1009	311 6012
064	TULLY LAKE	CDD HDD	0 1381	0 1166	0 991	0 612	9 276	95 74	225 7	190 25	38 180	1 528	0 812	0 1202	558 7254
		CDD	0	0	0	0	9	80	167	124	13	0	0	0	393



Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971-2000

## **MASSACHUSETTS**

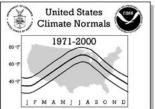
071 WORCESTER RGNL AP HDD   1284 1094 952   601 278 74   9 20 158 478 764 111	7 6109 539 6 6302 5 534
065 WALPOLE 2	7 6109 539 6 6302 534 9 6831
068 WEST MEDWAY	6302 534 9 6831
CDD 0 0 0 8 92 228 176 29 1 0 071 WORCESTER RGNL AP HDD 1284 1094 952 601 278 74 9 20 158 478 764 111	534 9 6831
CDD 0 0 0 7 64 166 122 12 0 0	
	_
	_
	_



Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971-2000

### **MASSACHUSETTS**

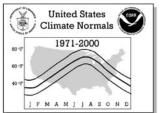
							NORI	MALS S	TATISTI	CS				
No.	Station Name Element	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
001	AMHERST HIGHEST MEAN MEDIAN	30.7	34.9 24.0	40.5 34.3	50.3 45.6	61.9 57.6	71.2 66.1	74.1 70.9	72.9 68.7	65.6 61.0	56.3 49.0	44.3 38.7	34.7 29.1	74.1 47.1
	LOWEST MEAN	13.4	14.3	27.6	41.1	52.4	61.8	67.1	66.4	58.1	44.8	35.1	15.2	13.4
	HIGHEST MEAN YEAR	1990	1981	1977	1991	1991	1976	1988	1973	1971	1971	1999	1998	1988
	LOWEST MEAN YEAR MIN OBS TIME ADJUSTMENT	1994	1979 2.0	1984 1.0	1972 0.0	1984 -0.6	1980 -0.6	1992 -0.5	1994 -0.3	1984 -0.5	1988	1976 1.1	1989	1994
	MAX OBS TIME ADJUSTMENT	0.2	0.5	0.4	0.5	0.4	0.3	0.1	0.0	-0.1	0.0	0.1	0.0	
004	BARRE FALLS D HIGHEST MEAN	31.0	32.0 22.7	38.2	47.0 43.6	59.1 54.6	66.6 63.1	71.2	69.4 65.2	61.7 57.0	52.0 46.6	42.9 37.6	33.0 26.9	71.2 44.5
	MEDIAN LOWEST MEAN	12.2	14.2	27.0	38.4	54.6	59.0	64.3	62.5	54.1	40.6	37.6	12.4	12.2
	HIGHEST MEAN YEAR	1990	1998	2000	1976	1991	1976	1994	1988	1999	1990	1999	1998	1994
	LOWEST MEAN YEAR MIN OBS TIME ADJUSTMENT	1977	1979 1.0	1984	1975 -0.6	1997 -0.7	1985 -0.7	1992 -0.6	1982 -0.7	1978 -0.9	1974 -0.6	1976 0.4	1989	1977
	MAX OBS TIME ADJUSTMENT	0.3	0.4	0.4	0.4	0.3	0.2	0.1	0.0	-0.1	0.0	0.1	0.1	
005	BEDFORD HIGHEST MEAN MEDIAN	32.9	34.5 27.5	41.8 37.0	51.1 47.3	62.3 57.4	70.5 66.0	75.6 71.4	73.1 70.1	66.1 61.4	56.0 50.1	46.4 41.0	36.1	75.6 48.6
	LOWEST MEAN	17.1	19.7	30.7	42.6	53.9	62.1	67.6	66.8	58.1	46.8	36.6	17.4	17.1
	HIGHEST MEAN YEAR	1990	1981	2000	1976	1991	1999	1994	1973	1999	1971	1975	1996	1994
	LOWEST MEAN YEAR MIN OBS TIME ADJUSTMENT	1981	1979	1984	1972	1974	1982	1992	1986	1978	1988	1996	1989	1981
	MAX OBS TIME ADJUSTMENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
008	BIRCH HILL DA HIGHEST MEAN	29.5	29.7	37.8	46.1	59.1	67.1	72.5	69.6	62.5	50.7	41.7	33.7	72.5
	MEDIAN LOWEST MEAN	21.0	21.2 13.3	32.4 26.5	43.5 38.0	54.3 50.4	63.1 59.4	67.8 64.7	65.4 63.2	57.3 54.5	45.9 41.6	36.9 32.2	26.3	44.1 10.3
	HIGHEST MEAN YEAR	1990	1984	1973	1976	1991	1976	1994	1973	1999	1971	1999	1998	1994
	LOWEST MEAN YEAR	1977	1979	1984	1975	1997	1982	1992	1987	1978	1974	1976	1989	1989
	MIN OBS TIME ADJUSTMENT MAX OBS TIME ADJUSTMENT	0.5	1.0 0.5	0.0	-0.6 0.4	-0.7 0.3	-0.7 0.2	-0.6 0.1	-0.7 0.0	-0.9 -0.2	-0.6 0.0	0.4	0.2	
009	BLUE HILL OBS HIGHEST MEAN	34.2	35.1	41.9	51.4	62.1	69.7	75.3	73.3	66.2	57.2	48.0	36.9	75.3
	MEDIAN	26.7	27.7	36.5	46.0	56.9	65.9	71.7	69.9	61.8	51.3	41.5	31.4	48.7
	LOWEST MEAN HIGHEST MEAN YEAR	17.6	18.4 1984	30.0 1977	41.8 1976	53.4 1991	61.2 1999	67.9 1994	66.3 1988	59.2 1999	47.5 1971	37.3 1975	17.9 1998	17.6 1994
	LOWEST MEAN YEAR	1981	1979	1984	1972	1974	1982	2000	1982	1978	1974	1976	1989	1981
	MIN OBS TIME ADJUSTMENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
010	MAX OBS TIME ADJUSTMENT BOSTON LOGAN HIGHEST MEAN	36.4	0.0 37.6	0.0	0.0 55.1	0.0	0.0 73.4	0.0 78.0	0.0 75.5	0.0	0.0 59.8	0.0	0.0	78.0
	MEDIAN	29.5	30.9	38.7	48.3	58.2	68.1	74.0	72.0	64.4	53.9	44.6	35.2	51.4
	LOWEST MEAN HIGHEST MEAN YEAR	1990	23.1 1984	31.9 1977	44.9 1976	54.7 1991	63.3 1976	69.5 1983	70.3 1988	61.4 1983	50.1 1971	40.3 1975	21.7 1990	21.4 1983
	LOWEST MEAN YEAR	1981	1979	1977	1976	1974	1976	1992	2000	1978	1971	1975	1989	1981
	MIN OBS TIME ADJUSTMENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
012	MAX OBS TIME ADJUSTMENT BROCKTON HIGHEST MEAN	35.0	0.0	0.0	0.0	0.0	0.0 70.5	0.0 76.7	0.0 75.1	0.0	0.0	0.0	0.0	76.7
012	MEDIAN	28.1	29.8	38.1	47.2	57.5	66.5	72.0	70.0	62.1	51.2	42.0	33.5	49.6
	LOWEST MEAN	18.8	21.5	33.1	42.6	53.9	62.0	68.7	67.6	57.9	47.5	37.5	20.3	18.8
	HIGHEST MEAN YEAR LOWEST MEAN YEAR	1990 1981	1984 1979	2000 1984	1976 1972	1991 1974	1999 1982	1994 1992	1988 1982	1999 1978	1990 1974	1999 1976	1990 1989	1994 1981
	MIN OBS TIME ADJUSTMENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1701
013	MAX OBS TIME ADJUSTMENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74 7
013	BUFFUMVILLE L HIGHEST MEAN MEDIAN	31.8	32.0 24.6	41.7 34.7	48.7 45.7	61.7 56.3	68.7 65.5	74.7 70.1	72.4 68.2	65.1 60.1	55.1 48.8	44.8 39.5	34.9 29.7	74.7 46.8
	LOWEST MEAN	12.4	17.4	28.1	40.7	52.7	60.4	67.1	64.6	57.0	44.0	35.3	15.1	12.4
	HIGHEST MEAN YEAR LOWEST MEAN YEAR	1990 1977	1998 1978	2000 1984	1976 1972	1991 1997	1976 1985	1994 1992	1988 1982	1999 1975	1971 1974	1979 1976	1998 1989	1994 1977
	MIN OBS TIME ADJUSTMENT	0.5	1.0	0.0	-0.6	-0.7	-0.7	-0.6	-0.7	-0.9	-0.6	0.4	0.2	13//
_	MAX OBS TIME ADJUSTMENT	0.2	0.4	0.4	0.4	0.3	0.2	0.1	0.0	-0.2	0.0	0.1	0.0	
014	CHATHAM MUNIC HIGHEST MEAN MEDIAN	37.4	36.7 30.8	40.6 36.7	47.8 44.9	57.1 53.3	65.1 62.3	73.2	70.3 68.2	66.1 62.6	58.6 53.4	49.3 44.9	41.0	73.2 49.2
	LOWEST MEAN	22.4	22.5	32.6	40.3	51.2	58.6	65.5	65.7	59.8	50.1	39.9	24.6	22.4
	HIGHEST MEAN YEAR	1995	1998	2000	1976	1991	1999	1999	1988	1971	1971	1994	1996	1999
	LOWEST MEAN YEAR MIN OBS TIME ADJUSTMENT	1981	1979 1.8	1984 1.0	1972 -0.1	1995 -0.6	1982 -0.5	1992 -0.4	1986 -0.2	1978 -0.4	1972 0.5	1976 0.4	1989	1981
	MAX OBS TIME ADJUSTMENT	0.2	0.4	0.4	0.4	0.3	0.3	0.2	0.1	0.0	0.1	0.1	0.0	
015	CHESTER 2 HIGHEST MEAN	28.7	30.5	41.9	50.6	63.7	71.3	74.7	73.4	64.4	56.5	45.2	33.3	74.7
	MEDIAN LOWEST MEAN	19.5	22.9 12.4	34.5 28.1	46.5 39.1	58.9 54.4	66.8 60.2	71.4	68.5 63.8	59.4 56.0	48.7 43.1	39.5 32.5	27.1 11.6	46.7 9.1
	HIGHEST MEAN YEAR	1990	1981	1973	1991	1991	1976	1994	1973	1971	1971	1975	1982	1994
	LOWEST MEAN YEAR	1982	1979	1984	1972	1997	1985	2000	1982	1984	1974	1976	1989	1982
	MIN OBS TIME ADJUSTMENT MAX OBS TIME ADJUSTMENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
		1											- • •	<u> </u>



Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days
1971-2000

### **MASSACHUSETTS**

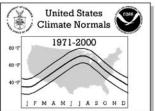
] F M A M ] ] A S	<u> </u>													
No. Station Name	Element	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV		ANNUAL
017 CLINTON	HIGHEST MEAN MEDIAN	32.5 25.3	34.6 25.4	42.2 35.1	52.2	62.9 57.7	72.9 67.1	75.7 71.9	74.8 69.8	67.4 61.2	54.9	46.0 41.1	36.0 30.5	75.7 48.2
	LOWEST MEAN	15.1	18.4	30.1	40.3	53.0	61.6	68.3	67.1	57.7	45.0	36.0	16.5	15.1
	HIGHEST MEAN YEAR	1990	1976	1977	1976	1977	1976	1999	1984	1983	1990	1999	1998	1999
	LOWEST MEAN YEAR	1981	1979	1984	1972	1974	1982	2000	1982	1975	1974	1971	1989	1981
	S TIME ADJUSTMENT	0.5	1.1	0.0	-0.6	-0.7	-0.7	-0.6	-0.7	-0.9	-0.6	0.4	0.2	
MAX OB 019 CUMMINGTON	S TIME ADJUSTMENT HI HIGHEST MEAN	0.2	0.4	0.4	0.4 47.8	0.3	0.2	70.9	0.0	-0.2 61.1	0.0	0.1	0.0	70.9
019 COMMINGION	MEDIAN	20.9	29.0	31.0	42.9	54.8	62.8	67.6	65.7	57.8	47.2	37.1	26.4	44.3
	LOWEST MEAN	11.4	12.7	24.5	36.5	50.0	58.5	64.0	62.6	54.4	42.4	31.2	11.5	11.4
	HIGHEST MEAN YEAR	1990	1981	2000	1991	1991	1999	1999	1973	1999	1971	1979	1998	1999
	LOWEST MEAN YEAR	1977	1979	1984	1975	1997	1985	2000	1986	1975	1974	1976	1989	1977
	SS TIME ADJUSTMENT	1.3	2.0	$\frac{1.0}{0.4}$	0.0	-0.6	-0.6 0.3	-0.5 0.1	-0.3 0.0	0.6	0.5	1.1	0.8	
020 EAST BRIMFI		32.2	32.0	40.2	48.8	60.2	68.8	73.1	72.0	63.8	54.5	44.6	35.6	73.1
	MEDIAN	24.7	24.3	34.8	45.0	55.9	64.7	69.6	68.0	59.7	48.8	39.3	29.6	46.4
	LOWEST MEAN	13.7	16.6	28.9	39.8	52.2	61.2	65.8	65.0	57.1	44.6	34.8	14.0	13.7
	HIGHEST MEAN YEAR	1990	1998	2000	1976	1975	1976	1994	1973	1999	1971	1999	1998	1994
MIN OR	LOWEST MEAN YEAR	1977	1979 1.0	1984	1972 -0.6	1990 -0.7	1985 -0.7	1992	1992 -0.7	1986 -0.9	1974	1996 0.4	1989	1977
	SS TIME ADJUSTMENT	0.4	0.4	0.0	0.4	0.3	0.2	0.1	0.0	-0.9	0.0	0.4	0.2	
021 EAST WAREHA		36.5	37.5	41.9	49.2	60.6	68.4	75.9	73.4	67.1	57.8	47.2	40.0	75.9
	MEDIAN	29.9	29.5	37.4	46.1	56.1	65.7	72.0	70.6	62.6	52.2	42.9	34.9	49.7
	LOWEST MEAN	17.7	20.9	32.1	41.6	53.5	60.4	68.4	66.8	58.8	48.1	36.7	22.1	17.7
	HIGHEST MEAN YEAR LOWEST MEAN YEAR	1998 1981	1984 1979	2000 1978	1976 1972	1991 1983	1973 1982	1994 2000	1988 1982	1971 1978	1971 1974	1994 1976	1996 1989	1994 1981
MIN OF	S TIME ADJUSTMENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1901
	S TIME ADJUSTMENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
022 EDGARTOWN	HIGHEST MEAN	37.6	37.7	41.8	49.6	59.2	67.9	75.1	72.7	67.6	59.1	50.2	41.2	75.1
	MEDIAN	31.5	30.9	37.9	46.3	55.4	64.3	70.6	70.2	63.9	53.5	45.1	36.4	50.3
	LOWEST MEAN HIGHEST MEAN YEAR	20.7	21.9 1998	33.1	41.3 1976	53.1 1991	59.5 1999	67.5 1994	65.9 1980	60.6 1999	50.2	40.6 1994	23.4 1984	20.7 1994
	LOWEST MEAN YEAR	1981	1979	1984	1976	1991	1982	1994	1980	1986	1988	1994	1989	1994
MIN OB	S TIME ADJUSTMENT	0.4	0.9	-0.1	-0.6	-0.7	-0.6	-0.5	-0.6	-0.9	-0.6	0.4	0.2	1,01
MAX OB	S TIME ADJUSTMENT	0.2	0.4	0.3	0.3	0.3	0.2	0.1	0.0	-0.1	0.0	0.1	0.0	
023 FRAMINGHAM	HIGHEST MEAN	34.9	34.9	42.7	53.1	63.6	72.3	76.1	75.2	67.0	57.4	47.3	37.5	76.1
	MEDIAN LOWEST MEAN	27.1 17.5	27.9 19.6	38.1 31.5	48.2	59.1 55.8	68.3 63.0	73.4	71.4 67.9	63.0 60.3	51.7 47.8	42.2 37.9	31.9 17.2	49.9 17.2
	HIGHEST MEAN YEAR	1990	1998	2000	1976	1991	1976	1994	1973	1999	1971	1979	1998	1994
	LOWEST MEAN YEAR	1982	1979	1984	1972	1990	1982	1992	1982	1975	1981	1996	1989	1989
	S TIME ADJUSTMENT	1.2	1.9	1.0	0.0	-0.6	-0.5	-0.5	-0.3	-0.5	0.5	1.1	0.8	
	S TIME ADJUSTMENT	0.2	0.5	0.4	0.5	0.4	0.3	0.1	0.0	-0.1	0.1	0.1	0.0	
026 GREAT BARRI	NG HIGHEST MEAN MEDIAN	31.3	30.4	40.2	48.5	60.8 55.9	68.3 64.3	72.7	70.8 66.0	63.7 58.0	52.8	43.7 37.6	36.1 27.6	72.7 45.2
	LOWEST MEAN	11.3	11.9	26.1	38.1	51.7	60.0	65.8	61.9	54.6	41.0	32.8	12.8	11.3
	HIGHEST MEAN YEAR	1990	1984	2000	1991	1991	1999	1999	1988		1990	1999	1998	1999
	LOWEST MEAN YEAR		1979	1984	1972	1997	1980	1992	1982			1980		1977
	SS TIME ADJUSTMENT	0.4	1.0	0.0	-0.6 0.4	-0.6	-0.7 0.2	-0.5 0.1	-0.7 0.0	-0.5 -0.1	-0.6 0.0	0.4	0.2	
	HIGHEST MEAN	32.8	34.3	42.5	51.8	62.6	72.4	75.8	74.5	66.5	57.4	46.5	36.3	75.8
	MEDIAN	26.4	27.5	36.2	46.2	56.6	66.0	72.2	70.9	61.3	51.1	40.6	30.6	48.5
	LOWEST MEAN	1	19.9	30.1	43.3	53.3	60.1	67.3	65.6	58.8	47.5	36.6	17.4	17.1
	HIGHEST MEAN YEAR	1	1998	1977	1976	1975	1976	1975	1973	1971	1971	1975	1990	1975
	LOWEST MEAN YEAR SS TIME ADJUSTMENT	1981	1979 0.0	1984 0.0	1972	1990 0.0	1982	1992	1987 0.0	1988 0.0	1981	1996 0.0	1989	1981
	S TIME ADJUSTMENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
031 HINGHAM	HIGHEST MEAN	35.2	37.1	43.3	51.5	62.0	70.2	76.2	73.3	66.6	57.1	48.2	39.2	76.2
	MEDIAN	29.3	30.0	38.1	47.1	56.8	66.3	71.8	69.9	62.2	52.1	42.7	33.9	49.9
	LOWEST MEAN			32.2	42.0	53.9	61.7	68.0		59.3	48.3	38.7	20.5	19.1
	HIGHEST MEAN YEAR LOWEST MEAN YEAR		1984 1979	2000 1984	1976 1972	1991 1974	1994 1982	1994 1992	1988 1986	1999 1978	1990 1972	1999 1996	1990 1989	1994 1981
MIN OB	S TIME ADJUSTMENT	-0.9	-1.2	-0.7	-0.7	-0.6	-0.6	-0.4	-0.6	-0.7	-0.9	-1.0	-0.7	1701
	S TIME ADJUSTMENT	-0.4	-0.6	-0.3	-0.4	-0.3	-0.3	-0.2		-0.4	-0.5	-0.5	-0.4	
033 HYANNIS	HIGHEST MEAN	36.1	36.7	41.8	49.4	58.7	66.8	74.0	73.0	67.0	57.7	48.8	40.2	74.0
	MEDIAN	30.1	29.6	36.6	45.4	54.9	64.4	70.8	69.8	63.0	52.5	43.8	35.5	49.3
	LOWEST MEAN HIGHEST MEAN YEAR	20.3	20.8 1998	31.5 2000	40.1 1976	52.8 1991	60.5 1999	67.6 1994	67.0 1988	59.9 1971	47.8 1990	39.2 1994	22.1 1996	20.3 1994
	LOWEST MEAN YEAR	1	1998	1984	1976	1991	1999	2000		1971	1974	1994	1996	1994
MIN OB	S TIME ADJUSTMENT	1.1		1.0	0.0	-0.6	-0.5	-0.4		-0.4	0.5	1.1	0.7	
MAX OB	S TIME ADJUSTMENT	0.2	0.4	0.4	0.4	0.4	0.3	0.1	0.0	-0.1	0.1	0.1	0.0	
		•						•			•			•



Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days 1971-2000

### **MASSACHUSETTS**

No. Station Nam	e Element	JAN	FEB	MAR	APR	MAY	NORI JUN	JUL	TATISTI AUG	CS SEP	ОСТ	NOV	DEC	ANNUAL
035 KNIGHTVIL	LE D HIGHEST MEAN MEDIAN	29.9	31.1 22.8	38.4 32.6	48.6	60.3 55.7	68.6 64.1	71.3	71.0 67.0	62.4 58.4	53.6 47.2	43.4 38.3	33.5 27.8	71.3
	LOWEST MEAN	12.3	14.4	27.5	38.8	51.0	59.3	65.0	64.3	55.2	42.7	33.8	12.4	12.3
	HIGHEST MEAN YEAR	1990	1984	1973	1991	1991	1976	1999	1973	1971	1971	1975	1982	1999
MIN	LOWEST MEAN YEAR OBS TIME ADJUSTMENT	1994	1979	1984 1.0	1972	1997 0.0	1985 -0.6	2000	1992 -0.3	1978 0.6	1992	1996 1.1	1989	1994
MAX	OBS TIME ADJUSTMENT	0.2	0.5	0.4	0.5	0.4	0.3	0.1	0.0	-0.1	0.1	0.0	0.0	
036 LAWRENCE	HIGHEST MEAN MEDIAN	32.9	34.3	42.9 35.4	50.6 45.8	61.8 56.8	70.7 66.2	75.6	73.8 70.1	67.0 60.9	56.1 49.9	46.4 41.0	38.3	75.6 48.1
	LOWEST MEAN	16.0	18.1	29.1	41.4	53.4	60.6	68.7	66.5	58.1	45.7	36.3	17.9	16.0
	HIGHEST MEAN YEAR	1990	1998	2000	1994	1991	1999	1994	1993	1999	1971	1999	1998	1994
MIN	LOWEST MEAN YEAR OBS TIME ADJUSTMENT	1982	1979 1.9	1984 1.7	1975	1974	1982	1986	1982 0.7	1986 0.6	1974	1972 1.0	1989	1982
MAX	OBS TIME ADJUSTMENT	0.2	0.5	0.4	0.5	0.4	0.3	0.1	0.0	-0.1	0.1	0.0	0.0	
037 LOWELL	HIGHEST MEAN MEDIAN	30.8	34.4 27.3	40.9	50.4	61.7 57.3	70.6 66.6	75.6	74.3 70.4	66.2 61.8	56.5 49.8	45.7 40.2	36.1 29.9	75.6 48.1
	LOWEST MEAN	14.8	18.4	29.4	42.9	54.2	61.5	68.4	66.8	58.3	46.0	36.1	15.3	14.8
	HIGHEST MEAN YEAR	1990	1984	2000	1976	1991	1999	1994	1973	1999	1971	1999	1998	1994
MTN	LOWEST MEAN YEAR OBS TIME ADJUSTMENT	1994	1993	1984 1.7	1972	1990	1980	1992	1987 0.7	1986 0.6	1974	1976 1.0	1989	1994
	OBS TIME ADJUSTMENT	0.2	0.5	0.4	0.5	0.4	0.3	0.1	0.0	-0.1	0.0	0.0	0.1	
038 MARBLEHEA		35.4	37.7	43.1	51.5	62.5	70.3	75.8	74.3	67.6	59.3	49.8	40.2	75.8 50.7
	MEDIAN LOWEST MEAN	29.8	31.0 21.8	38.3 32.6	47.2	57.1 54.4	67.2 62.8	72.9	71.3	63.7 60.8	53.9 49.7	44.2 39.9	35.1 20.8	20.6
	HIGHEST MEAN YEAR	1990	1984	2000	1976	1991	1999	1994	1988	1983	1971	1975	1998	1994
MIN	LOWEST MEAN YEAR OBS TIME ADJUSTMENT	1981	1979 -1.6	1984 -0.9	1972	1974 -0.7	1982 -0.7	1992	1982 -0.8	1978 -1.0	1974 -1.4	1996 -1.4	1989 -1.1	1981
	OBS TIME ADJUSTMENT	-1.7	-2.3	-0.9	-0.9	-0.7	-0.7	-1.2	-0.8	-1.0	-1.4	-2.0	-1.1	
040 MIDDLETON		34.7	37.0	43.1	52.0	61.1	71.1	75.8	74.7	67.5	58.6	49.7	38.9	75.8
	MEDIAN LOWEST MEAN	28.9	29.1 21.1	37.9 31.8	47.7	58.1 54.0	67.3 60.6	72.2	71.6 68.4	63.5 60.7	53.4	43.8	33.5 19.0	50.2
	HIGHEST MEAN YEAR	1990	1984	2000	1976	1975	1999	1988	1988	1983	1971	1999	1990	1988
	LOWEST MEAN YEAR	1981	1979	1984	1972	1974	1982	2000	1982	1978	1981	1996	1989	1989
	OBS TIME ADJUSTMENT OBS TIME ADJUSTMENT	-1.3	-1.6 -2.3	-0.9 -1.6	-0.9 -1.9	-0.7 -1.7	-0.7 -1.6	-0.5 -1.2	-0.8 -1.8	-1.0 -1.9	-1.4 -1.9	-1.4	-1.1 -1.6	
042 NANTUCKET		39.5	39.5	42.8	48.1	58.0	66.7	72.7	72.2	69.5	62.4	50.6	42.9	72.7
	MEDIAN	32.7	32.3	37.7	44.7	53.3	62.3	68.8	69.2	62.7	54.0	45.9	38.1	49.9
	LOWEST MEAN HIGHEST MEAN YEAR	22.7 1990	24.6 1998	32.9 2000	1999	50.4 1991	57.7 1999	65.4 1999	65.5 1978	59.7 1971	49.0 1971	40.4 1975	25.3 1984	22.7 1999
	LOWEST MEAN YEAR	1981	1979	1984	1972	1972	1974	1972	1982	1978	1972	1976	1989	1981
	OBS TIME ADJUSTMENT OBS TIME ADJUSTMENT	-0.8	-1.1 -0.6	-0.7 -0.3	-0.7 -0.4	-0.6 -0.3	-0.5 -0.3	-0.4	-0.6 -0.4	-0.6 -0.4	-0.9 -0.5	-0.8 -0.4	-0.6 -0.4	
044 NEW BEDFO		36.5	36.8	42.7	51.1	63.5	71.4	78.2	76.0	69.3	59.4	49.8	40.1	78.2
	MEDIAN	29.3	29.6	37.2	46.8	57.4	68.1	74.2	73.5	65.4	54.5	44.2	34.6	51.1
	LOWEST MEAN HIGHEST MEAN YEAR	18.8	20.1 1998	31.5 2000	42.4 1976	54.6 1991	63.2 1999	71.7	69.5 1988	62.4 1999	50.4 1971	39.4 1975	20.2 1990	18.8
	LOWEST MEAN YEAR	1981	1979	1984	1972	1997	1982	2000	1982	1978	1988	1976	1989	1981
	OBS TIME ADJUSTMENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
053 PLYMOUTH-	OBS TIME ADJUSTMENT KING HIGHEST MEAN	37.1	0.0	0.0 43.7	50.7	0.0	0.0 70.9	75.9	0.0 75.4	0.0	0.0 58.7	0.0 48.6	0.0	75.9
	MEDIAN	30.4	30.7	38.2	46.6	56.6	66.4	72.2	70.9	63.2	53.3	44.2	34.9	50.4
	LOWEST MEAN HIGHEST MEAN YEAR	19.1 1995	22.9 1984	33.1 2000	1994	53.0 1991	61.0 1999	68.5 1994	67.5 1988	59.3 1999	48.5 1990	39.5 1979	20.7 1984	19.1 1994
	LOWEST MEAN YEAR	1981	1979	1984	1972	1990	1982	1992	1982	1978	1974	1976	1989	1981
	OBS TIME ADJUSTMENT	-0.1	-0.3	0.0	0.0	0.1	0.0	0.0	-0.1	0.1	0.0	-0.2	-0.1	
MAX 054 PROVINCET	OBS TIME ADJUSTMENT OWN HIGHEST MEAN	37.0	-0.1 38.3	0.0	0.0	0.0	0.0	0.0	0.0 73.2	0.0	0.0	-0.1 49.2	0.0	74.4
110,1101	MEDIAN	31.3	30.2	36.3	44.9	55.3	63.8	71.1	69.4	62.5	52.3	44.6	36.4	49.7
	LOWEST MEAN HIGHEST MEAN YEAR	21.8	19.9 1984	32.3	38.6 1991	51.2 1991	60.1 1999	67.7 1999	66.9 1988	58.8	48.4 1995	38.5 1982	22.8	19.9
	LOWEST MEAN YEAR	1998	1984	1978	1991	1991	1999	1999	1988	1983 1978	1995	1982	1982 1989	1999 1979
	OBS TIME ADJUSTMENT	1.2	1.9	0.9	0.0	-0.6	-0.5	-0.4	-0.2	-0.4	0.5	1.1	0.8	
MAX 056 READING	OBS TIME ADJUSTMENT HIGHEST MEAN	32.9	0.4	0.4	0.4	0.4	0.3 70.8	75.1	0.0 73.3	0.0	0.1 55.8	0.1 46.2	0.0 36.9	75.1
220 KENDING	MEDIAN	26.6	27.4	36.9	46.6	57.0	65.9	71.4	69.9	61.2	50.4	40.8	30.9	48.4
	LOWEST MEAN WEAR	16.8	20.1	30.8	41.6	52.8	61.1	67.0	66.4	58.8	46.2	36.7	17.9	16.8
	HIGHEST MEAN YEAR LOWEST MEAN YEAR	1990 1981	1981 1979	2000 1984	1976 1972	1991 1974	1999 1982	1999 1992	1988 1982	1999 1978	1971 1974	1975 1976	1990 1989	1999 1981
MIN	OBS TIME ADJUSTMENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MAX	OBS TIME ADJUSTMENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	



Monthly Normals of Temperature, Precipitation, and Heating and Cooling Degree Days
1971-2000

### **MASSACHUSETTS**

] F M A M ] ] A S O N D						NORN	AALS S	TATISTI	CS				
No. Station Name Ele	ement JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC	ANNUAL
057 ROCHESTER HIGHEST	MEAN 36.3 EDIAN 28.9	36.9 29.4	42.1 37.8	51.3 47.2	63.2 57.4	69.6 66.7	76.4 72.4	74.6 70.9	67.0 63.3	58.9	48.7 43.2	39.9 34.0	76.4 50.1
LOWEST		20.0	32.8	41.5	53.4	62.0	68.8	67.1	58.8	46.6	37.8	19.3	17.4
HIGHEST MEAN		1998	2000	1991	1991	1999	1994	1988	1983	1990	1994	1998	1994
LOWEST MEAN MIN OBS TIME ADJUST		1979 1.0	1978	1972	1974 -0.7	1982 -0.7	1992	1982 -0.7	1978 -0.9	1972	1976 0.4	1989	1981
MAX OBS TIME ADJUST		0.4	0.4	0.3	0.3	0.2	0.1	0.0	-0.9	0.0	0.4	0.2	
061 STOCKBRIDGE HIGHEST		32.1	40.1	49.9	61.6	67.7	72.1	70.9	62.8	53.8	44.0	33.6	72.1
l e	EDIAN 23.4	25.0	33.9	46.4	56.8	64.9	69.1	67.3	59.2	48.5	39.1	29.2	46.5
LOWEST HIGHEST MEAN		15.0 1998	28.1 1973	38.8	52.5 1991	61.1 1976	65.7 1999	64.6 1973	55.9 1999	1971	34.3 1999	14.3 1998	14.1 1999
LOWEST MEAN		1979	1984	1972	1984	1985	2000	1982	1984	1974	1976	1989	1994
MIN OBS TIME ADJUST	<b>I</b>	-1.4	-0.8	-0.9	-0.8	-0.7	-0.5	-0.8	-0.9	-1.2	-1.3	-1.0	
MAX OBS TIME ADJUST		-1.7	-1.0 42.4	-1.2	-1.8	-1.0	-0.8	-1.4	-1.8	-1.1	-1.4	-1.0	76.2
063 TAUNTON HIGHEST	MEAN 35.4 EDIAN 28.2	36.5 29.0	37.8	52.4	62.5 58.0	70.6 66.7	76.3	74.6 70.8	67.0 62.9	57.0	47.7 42.1	38.5 33.1	76.3 49.7
LOWEST		20.3	33.2	42.9	54.4	62.6	69.2	66.8	59.1	46.5	37.3	18.9	17.0
HIGHEST MEAN		1998	1977	1976	1991	1999	1994	1988	1999	1971	1999	1998	1994
LOWEST MEAN MIN OBS TIME ADJUST		1979 1.0	1984	1972	1974 -0.7	1985 -0.7	1992	1982 -0.7	1978 -0.9	1974	1976 0.4	1989	1981
MAX OBS TIME ADJUST		0.4	0.4	0.3	0.3	0.2	0.1	0.0	-0.2	0.0	0.4	0.2	
064 TULLY LAKE HIGHEST	MEAN 29.9	30.4	38.4	48.1	61.1	70.1	73.8	72.1	63.9	53.6	43.0	32.4	73.8
	EDIAN 21.6	22.4	33.3	45.1	56.7	65.1	70.2	68.1	59.5	47.6	38.0	27.6	45.8
LOWEST HIGHEST MEAN	<b>I</b>	14.9 1984	28.5 1973	39.9 1976	52.6 1975	60.3 1999	66.7 1994	64.4 1973	56.3 1999	42.8 1971	33.5 1975	11.2 1998	11.2 1994
LOWEST MEAN	<b>I</b>	1979	1984	1972	1990	1985	1992	1982	1986	1974	1976	1989	1989
MIN OBS TIME ADJUST		1.0	0.0	-0.6	-0.7	-0.7	-0.6	-0.7	-0.9	-0.6	0.4	0.2	
MAX OBS TIME ADJUST		0.5	0.4	0.4	0.3	0.2	0.1	0.0	-0.2	0.0	0.1	0.0	76.6
065 WALPOLE 2 HIGHEST	MEAN 34.2 EDIAN 27.8	36.0 28.6	43.3	52.0	63.3 58.1	70.6 67.3	76.6	74.6 70.2	66.6 61.9	56.2	47.2 41.5	37.8 32.5	76.6 49.6
LOWEST		20.3	31.2	42.8	54.5	62.8	69.0	67.6	58.7	46.9	37.1	18.7	17.8
HIGHEST MEAN		1997	2000	1976	1991	1999	1994	1988	1999	1971	1999	1990	1994
LOWEST MEAN MIN OBS TIME ADJUST		1979 -1.1	1984 -0.7	1972	1990 -0.6	1982 -0.6	1992	1982 -0.6	1978 -0.7	1974	1976 -1.0	1989 -0.7	1981
MAX OBS TIME ADJUST		-0.6	-0.3	-0.3	-0.3	-0.3	-0.2	-0.4	-0.4	-0.5	-0.6	-0.4	
068 WEST MEDWAY HIGHEST	<b>I</b>	34.8	42.6	51.0	62.1	70.5	76.3	73.9	65.8	56.4	46.8	37.4	76.3
1	EDIAN 26.7	27.1	37.3	46.9	57.5	66.7	71.9	70.7	62.1	50.7	41.0	32.1	48.9
LOWEST HIGHEST MEAN	<b>I</b>	19.0 1998	31.0 2000	42.3 1976	54.2 1991	63.1 1976	68.5 1994	67.7 1973	58.8 1971	46.2 1971	36.8 1999	17.2 1998	16.3 1994
LOWEST MEAN	<b>I</b>	1978	1984	1972	1997	1982	1992	1992	1984	1974	1996	1989	1977
MIN OBS TIME ADJUST	<b>I</b>	1.9	1.0	0.0	-0.6	-0.5	-0.5	-0.3	-0.5	0.5	1.1	0.8	
MAX OBS TIME ADJUST 071 WORCESTER RGN HIGHEST		0.5	0.4	0.4	0.4	0.3	0.1	0.0 71.9	-0.1 64.5	0.1	0.1 45.3	0.0	73.4
	EDIAN 24.3	25.1	34.3	45.3	56.6	64.7	70.3	67.9	59.8	49.5	39.7	29.6	47.1
LOWEST		16.0	28.7	40.1	51.8	61.1	66.4	65.5	57.1	44.7	34.7	15.5	15.5
HIGHEST MEAN LOWEST MEAN		1984								1			1994 1989
MIN OBS TIME ADJUST		1979 0.0				0.0				1	0.0		1909
MAX OBS TIME ADJUST						0.0					0.0		
				1			1			1			