

2004

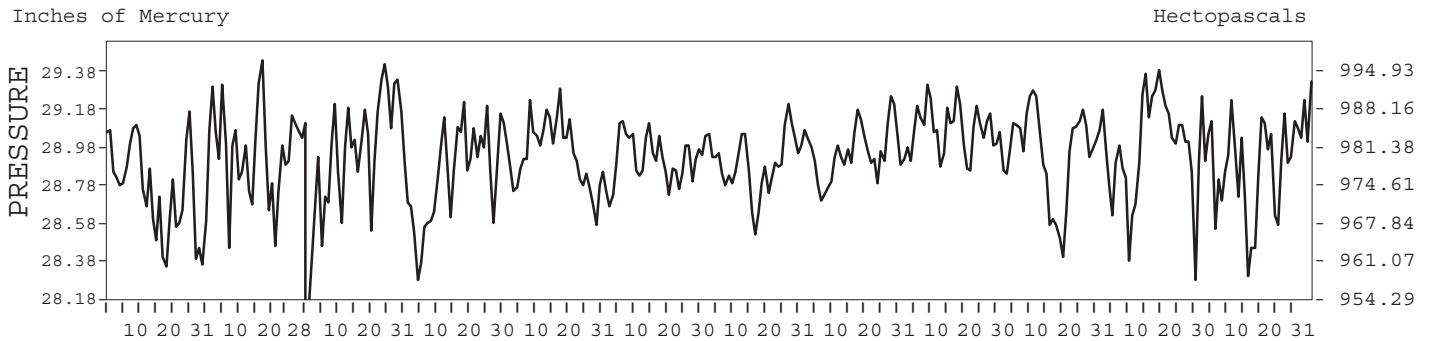
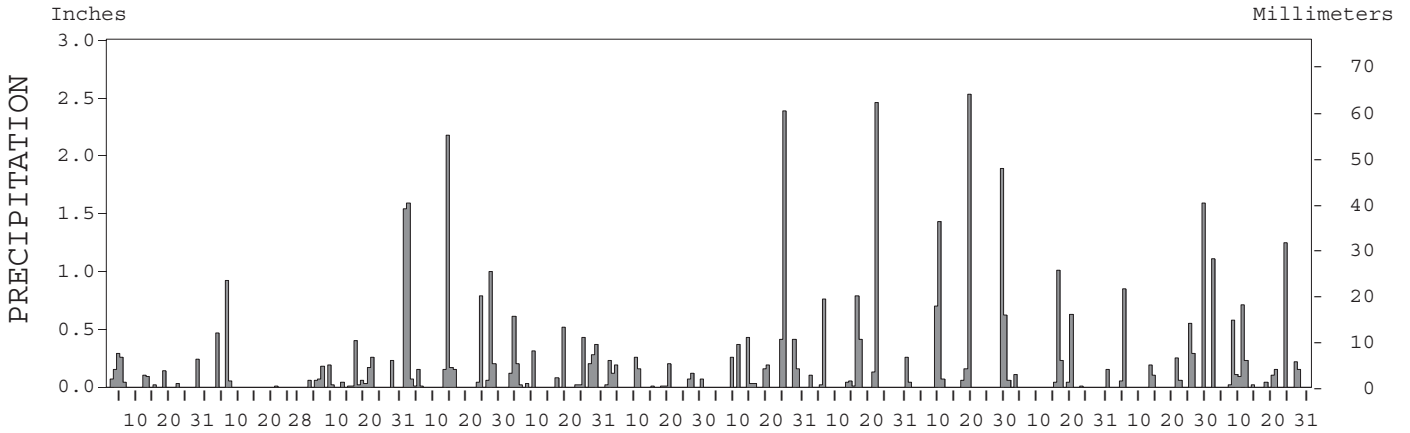
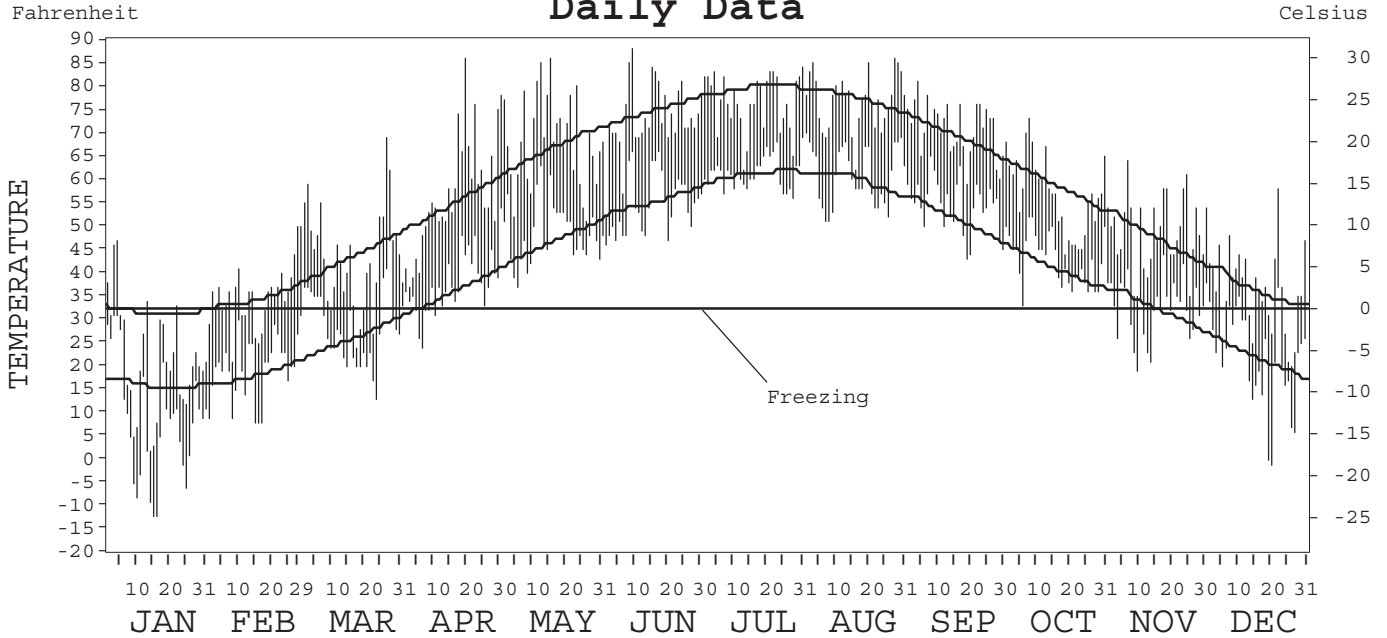
LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-2451

WORCESTER, MASSACHUSETTS (ORH)

Daily Data



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|---|---|---|---|

METEOROLOGICAL DATA FOR 2004

WORCESTER, MA (ORH)

LATITUDE: 42° 16' 02" N LONGITUDE: 71° 52' 34" W ELEVATION (FT): GRND: 963 BARO: 966 TIME ZONE: EASTERN (UTC + 5) WBAN: 94746

| ELEMENT | | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR | |
|----------------------|-------------------------------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-----------|---|
| TEMPERATURE °F | MEAN DAILY MAXIMUM | 21.7 | 35.1 | 43.3 | 57.0 | 68.3 | 73.3 | 76.6 | 76.8 | 70.9 | 56.9 | 48.7 | 36.7 | 55.4 | |
| | HIGHEST DAILY MAXIMUM | 47 | 50 | 69 | 86 | 86 | 95 | 84 | 86 | 81 | 73 | 64 | 58 | 95 | |
| | DATE OF OCCURRENCE | 04 | 29+ | 26 | 19 | 15 | 18 | 31 | 28 | 04 | 08 | 07 | 23 | JUN 18 | |
| | MEAN DAILY MINIMUM | 8.5 | 19.7 | 28.4 | 37.6 | 48.5 | 54.8 | 61.4 | 60.9 | 54.5 | 42.9 | 32.4 | 22.1 | 39.3 | |
| | LOWEST DAILY MINIMUM | -12 | 8 | 13 | 24 | 37 | 46 | 56 | 51 | 43 | 33 | 19 | -1 | -12 | |
| | DATE OF OCCURRENCE | 16+ | 17+ | 23 | 06 | 05 | 01 | 28 | 08+ | 19 | 06 | 10 | 21 | JAN 16+ | |
| | AVERAGE DRY BULB | 15.1 | 27.4 | 35.9 | 47.3 | 58.4 | 64.1 | 69.0 | 68.9 | 62.7 | 49.9 | 40.6 | 29.4 | 47.4 | |
| | MEAN WET BULB | 13.3 | 23.3 | | 40.6 | 52.7 | | | 63.6 | 57.9 | 45.6 | 36.6 | 26.9 | | |
| | MEAN DEW POINT | 4.3 | 12.7 | | 32.1 | 47.3 | | | 60.5 | 54.0 | 40.9 | 29.8 | 20.8 | | |
| | NUMBER OF DAYS WITH: | | | | | | | | | | | | | | |
| | MAXIMUM ≥ 90° | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | MAXIMUM ≤ 32° | 26 | 9 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 49 | |
| | MINIMUM ≤ 32° | 31 | 29 | 21 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 25 | 126 | |
| MINIMUM ≤ 0° | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 10 | | |
| H/C | HEATING DEGREE DAYS | 1540 | 1083 | 897 | 526 | 220 | 88 | 11 | 22 | 94 | 459 | 728 | 1095 | 6763 | |
| | COOLING DEGREE DAYS | 0 | 0 | 0 | 1 | 23 | 66 | 143 | 149 | 33 | 0 | 0 | 0 | 415 | |
| RH | MEAN (PERCENT) | 63 | 56 | 71 | 62 | 72 | 68 | 74 | 78 | 75 | 74 | 67 | 71 | 69 | |
| | HOUR 01 LST | 66 | 61 | 78 | 72 | 81 | 79 | 84 | 88 | 80 | 81 | 74 | 75 | 77 | |
| | HOUR 07 LST | 70 | 67 | 80 | 72 | 79 | 77 | 82 | 85 | 81 | 81 | 74 | 78 | 77 | |
| | HOUR 13 LST | 56 | 49 | 60 | 52 | 60 | 56 | 62 | 62 | 63 | 61 | 55 | 62 | 58 | |
| | HOUR 19 LST | 61 | 53 | 68 | 56 | 68 | 63 | 68 | 78 | 78 | 75 | 67 | 71 | 67 | |
| S | PERCENT POSSIBLE SUNSHINE | | | | | | | | | | | | | | |
| W/O | NUMBER OF DAYS WITH: | | | | | | | | | | | | | | |
| | HEAVY FOG (VISBY ≤ 1/4 MI) | 8 | 4 | 7 | 7 | 12 | 3 | 7 | 4 | 6 | 5 | 6 | 7 | 76 | |
| | THUNDERSTORMS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | |
| CLOUDINESS | SUNRISE-SUNSET: (OKTAS) | | | | | | | | | | | | | | |
| | CEILOMETER (≤ 12,000 FT.) | | | | | | | | | | | | | | |
| | SATELLITE (> 12,000 FT.) | | | | | | | | | | | | | | |
| | MIDNIGHT-MIDNIGHT: (OKTAS) | | | | | | | | | | | | | | |
| | CEILOMETER (≤ 12,000 FT.) | | | | | | | | | | | | | | |
| | SATELLITE (> 12,000 FT.) | | | | | | | | | | | | | | |
| NUMBER OF DAYS WITH: | | | | | | | | | | | | | | | |
| CLEAR | | | | | | | | | | | | | | | |
| PARTLY CLOUDY | | | | | | | | | | | | | | | |
| CLOUDY | | | | | | | | | | | | | | | |
| PR | MEAN STATION PRESS. (IN.) | 28.75 | 28.96 | | 28.84 | 28.94 | 28.93 | 28.90 | 28.95 | 29.07 | 28.94 | 29.00 | 28.90 | | |
| | MEAN SEA-LEVEL PRESS. (IN.) | 29.89 | 30.09 | | 29.94 | 30.03 | | 29.98 | 30.03 | 30.16 | 30.04 | 30.12 | 30.02 | | |
| WINDS | RESULTANT SPEED (MPH) | 10.8 | 8.2 | | 4.0 | 4.1 | | | 4.4 | 2.6 | 3.7 | 6.1 | 5.9 | | |
| | RES. DIR. (TENS OF DEGS.) | 28 | 29 | | 29 | 25 | | | 24 | 29 | 31 | 28 | 28 | | |
| | MEAN SPEED (MPH) | 13.2 | 11.6 | 11.3 | 11.5 | 10.1 | 9.5 | 8.2 | 8.4 | 8.3 | 9.6 | 10.6 | 11.5 | 10.3 | |
| | PREVAIL. DIR. (TENS OF DEGS.) | 28 | 29 | 29 | 04 | 27 | 26 | 22 | 25 | 25 | 03 | 28 | 28 | 29 | |
| | MAXIMUM 2-MINUTE WIND: | | | | | | | | | | | | | | |
| | SPEED (MPH) | 41 | 35 | 40 | 38 | 31 | 30 | 29 | 30 | 24 | 28 | 39 | 43 | 43 | |
| | DIR. (TENS OF DEGS.) | 27 | 31 | 28 | 23 | 29 | 29 | 30 | 30 | 04 | 30 | 27 | 28 | 28 | |
| | DATE OF OCCURRENCE | 13 | 19+ | 06 | 19 | 04 | 09 | 02 | 21 | 29+ | 12 | 05 | 01 | DEC 01 | |
| | MAXIMUM 5-SECOND WIND: | | | | | | | | | | | | | | |
| | SPEED (MPH) | 56 | 45 | 53 | 46 | 39 | 39 | 36 | 45 | 33 | 35 | 55 | 55 | 56 | |
| DIR. (TENS OF DEGS.) | 27 | 27 | 27 | 24 | 28 | 29 | 30 | 30 | 03 | 30 | 28 | 29 | 27 | | |
| DATE OF OCCURRENCE | 13 | 04 | 06 | 19 | 04 | 09 | 02 | 21 | 29 | 12 | 05 | 01 | JAN 13 | | |
| PRECIPITATION | WATER EQUIVALENT: | | | | | | | | | | | | | | |
| | TOTAL (IN.) | 1.43 | 1.45 | 3.35 | 6.57 | 3.23 | 1.45 | 4.84 | 5.07 | 7.52 | 2.22 | 3.93 | 4.78 | 45.84 | |
| | GREATEST 24-HOUR (IN.) | 0.44 | 0.95 | 1.54 | 2.23 | 0.81 | 0.42 | 2.80 | 2.58 | 2.69 | 1.24 | 1.59 | 1.25 | 2.80 | |
| | DATE OF OCCURRENCE | 04-05 | 06-07 | 31 | 12-13 | 03-04 | 09-10 | 23-24 | 20-21 | 17-18 | 15-16 | 28 | 23 | JUL 23-24 | |
| | NUMBER OF DAYS WITH: | | | | | | | | | | | | | | |
| | PRECIPITATION ≥ 0.01 | 11 | 4 | 17 | 14 | 15 | 12 | 11 | 12 | 9 | 8 | 9 | 14 | 136 | |
| PRECIPITATION ≥ 0.10 | 6 | 2 | 7 | 9 | 9 | 7 | 9 | 7 | 6 | 5 | 7 | 10 | 84 | | |
| PRECIPITATION ≥ 1.00 | 0 | 0 | 1 | 3 | 0 | 0 | 1 | 1 | 3 | 1 | 1 | 2 | 13 | | |
| SNOWFALL | SNOW, ICE PELLETS, HAIL: | | | | | | | | | | | | | | |
| | TOTAL (IN.) | 13.0 | 5.9 | 7.6 | T | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 11.9 | 41.4 | |
| | GREATEST 24-HOUR (IN.) | 4.9 | 3.7 | 4.0 | T | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 4.4 | 4.9 | |
| | DATE OF OCCURRENCE | 28 | 03 | 16 | 05+ | | | | | | | 13 | 26 | JAN 28 | |
| | MAXIMUM SNOW DEPTH (IN.) | | | | | | | | | | | | | | |
| | DATE OF OCCURRENCE | | | | | | | | | | | | | | |
| NUMBER OF DAYS WITH: | | | | | | | | | | | | | | | |
| SNOWFALL ≥ 1.0 | 5 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 14 | | |

NORMALS, MEANS, AND EXTREMES

WORCESTER, MA (ORH)

LATITUDE: 42° 16' 02" N LONGITUDE: 71° 52' 34" W ELEVATION (FT): GRND: 963 BARO: 966 TIME ZONE: EASTERN (UTC + 5) WBAN: 94746

| ELEMENT | | POR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | YEAR |
|-----------------------|-----------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----------|
| TEMPERATURE °F | NORMAL DAILY MAXIMUM | 30 | 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 DAILY MAXIMUM | 50 | 31.3 | 33.9 | 42.2 | 54.5 | 65.9 | 74.6 | 77.6 | 77.2 | 69.4 | 59.2 | 47.2 | 35.8 | 55.7 |
| | HIGHEST DAILY MAXIMUM | 48 | 60 | 67 | 84 | 91 | 92 | 95 | 96 | 96 | 91 | 85 | 78 | 72 | 96 |
| | YEAR OF OCCURRENCE | | 2002 | 1985 | 1998 | 1976 | 1962 | 2004 | 1988 | 1975 | 1983 | 1963 | 1982 | 1998 | JUL 1988 |
| | MEAN OF EXTREME MAXS. | 51 | 51.1 | 52.2 | 65.2 | 76.6 | 83.9 | 88.2 | 88.2 | 87.8 | 83.9 | 75.9 | 66.5 | 56.9 | 73.0 |
| | NORMAL DAILY MINIMUM | 30 | 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 |
| | MEAN DAILY MINIMUM | 51 | 15.6 | 17.3 | 25.6 | 35.6 | 46.0 | 55.3 | 59.7 | 59.5 | 51.8 | 41.4 | 32.3 | 21.6 | 38.5 |
| | LOWEST DAILY MINIMUM | 49 | -19 | -12 | -4 | 11 | 28 | 36 | 43 | 38 | 30 | 20 | 6 | -13 | -19 |
| | YEAR OF OCCURRENCE | | 1957 | 1967 | 1986 | 1982 | 1970 | 1986 | 1988 | 1992 | 1969 | 1989 | 1962 | JAN 1957 | |
| | MEAN OF EXTREME MINS. | 51 | -2.6 | -1.3 | 7.8 | 22.7 | 34.5 | 43.3 | 50.3 | 48.2 | 38.0 | 27.4 | 17.2 | 2.6 | 24.0 |
| | NORMAL DRY BULB | 30 | 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 |
| | MEAN DRY BULB | 50 | 23.7 | 25.8 | 33.8 | 45.0 | 55.9 | 65.0 | 68.6 | 68.3 | 60.4 | 50.3 | 39.7 | 28.6 | 47.1 |
| | MEAN WET BULB | 18 | 21.8 | 23.9 | 30.5 | 39.7 | 49.8 | 58.8 | 60.0 | 62.7 | 51.7 | 45.3 | 36.1 | 25.2 | 42.1 |
| | MEAN DEW POINT | 18 | 14.6 | 15.7 | 22.1 | 31.3 | 42.6 | 53.8 | 56.1 | 58.6 | 47.5 | 39.3 | 30.0 | 18.6 | 35.8 |
| | NORMAL NO. DAYS WITH: | | | | | | | | | | | | | | |
| MAXIMUM ≥ 90° | 30 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.6 | 1.6 | 0.7 | * | 0.0 | 0.0 | 0.0 | 3.1 | |
| MAXIMUM ≤ 32° | 30 | 17.2 | 13.1 | 4.4 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 11.2 | 48.0 | |
| MINIMUM ≤ 32° | 30 | 29.1 | 25.9 | 24.2 | 9.9 | 0.4 | 0.0 | 0.0 | 0.0 | 0.1 | 4.5 | 16.8 | 27.3 | 138.2 | |
| MINIMUM ≤ 0° | 30 | 2.9 | 1.4 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 5.0 | |
| H/C | NORMAL HEATING DEG. DAYS | 30 | 1284 | 1094 | 952 | 601 | 278 | 74 | 9 | 20 | 158 | 478 | 764 | 1119 | 6831 |
| | NORMAL COOLING DEG. DAYS | 30 | 0 | 0 | 0 | 0 | 7 | 64 | 166 | 122 | 12 | 0 | 0 | 0 | 371 |
| RH | NORMAL (PERCENT) | 30 | 66 | 64 | 63 | 61 | 65 | 70 | 71 | 73 | 74 | 70 | 69 | 68 | 68 |
| | HOUR 01 LST | 30 | 68 | 67 | 68 | 69 | 75 | 80 | 81 | 83 | 84 | 78 | 75 | 72 | 75 |
| | HOUR 07 LST | 30 | 72 | 72 | 72 | 68 | 72 | 76 | 78 | 81 | 83 | 79 | 77 | 74 | 75 |
| | HOUR 13 LST | 30 | 60 | 57 | 55 | 51 | 54 | 58 | 59 | 61 | 62 | 57 | 60 | 61 | 58 |
| | HOUR 19 LST | 30 | 66 | 63 | 60 | 58 | 61 | 67 | 70 | 74 | 76 | 70 | 69 | 68 | 67 |
| S | PERCENT POSSIBLE SUNSHINE | | | | | | | | | | | | | | |
| W/O | MEAN NO. DAYS WITH: | | | | | | | | | | | | | | |
| | HEAVY FOG (VISBY ≤ 1/4 MI) | 32 | 6.0 | 5.7 | 7.9 | 6.6 | 7.2 | 7.5 | 5.9 | 5.9 | 7.5 | 6.7 | 7.3 | 6.8 | 81.0 |
| | THUNDERSTORMS | 32 | 0.0 | 0.1 | 0.7 | 1.2 | 2.2 | 3.3 | 4.1 | 3.2 | 1.3 | 1.0 | 0.4 | 0.1 | 17.6 |
| CLOUDINESS | MEAN: | | | | | | | | | | | | | | |
| | SUNRISE-SUNSET (OKTAS) | | | | | | | | | | | | | | |
| | MIDNIGHT-MIDNIGHT (OKTAS) | | | | | | | | | | | | | | |
| | MEAN NO. DAYS WITH: | | | | | | | | | | | | | | |
| | CLEAR | 1 | | | 1.0 | | | | 5.9 | | | | | | |
| | PARTLY CLOUDY | 1 | 1.0 | | 1.0 | | 2.0 | | 12.1 | | | | | | |
| | CLOUDY | 1 | 1.0 | 1.0 | 1.0 | | | | 13.0 | | | | | | |
| PR | MEAN STATION PRESSURE (IN) | 31 | 28.87 | 28.87 | 28.86 | 28.85 | 28.88 | 28.88 | 28.91 | 28.95 | 28.97 | 28.96 | 28.92 | 28.89 | 28.90 |
| | MEAN SEA-LEVEL PRES. (IN) | 19 | 30.00 | 30.01 | 29.99 | 29.95 | 29.98 | 29.95 | 29.99 | 30.05 | 30.08 | 30.08 | 30.05 | 30.02 | 30.01 |
| WINDS | MEAN SPEED (MPH) | 32 | 12.2 | 12.4 | 12.5 | 11.5 | 10.5 | 9.9 | 9.2 | 8.9 | 9.5 | 10.2 | 11.2 | 11.8 | 10.8 |
| | PREVAIL. DIR (TENS OF DEGS) | 19 | 28 | 28 | 29 | 29 | 28 | 28 | 26 | 25 | 25 | 26 | 28 | 28 | 28 |
| | MAXIMUM 2-MINUTE: | | | | | | | | | | | | | | |
| | SPEED (MPH) | 8 | 41 | 49 | 47 | 43 | 51 | 36 | 33 | 43 | 41 | 39 | 43 | 45 | 51 |
| | DIR. (TENS OF DEGS) | | 27 | 28 | 27 | 21 | 31 | 31 | 30 | 31 | 32 | 26 | 28 | 27 | 31 |
| | YEAR OF OCCURRENCE | | 2004 | 1996 | 1997 | 2000 | 1998 | 2001 | 2001 | 2002 | 1999 | 2003 | 2003 | 2000 | MAY 1998 |
| | MAXIMUM 5-SECOND: | | | | | | | | | | | | | | |
| SPEED (MPH) | 8 | 57 | 70 | 61 | 58 | 94 | 47 | 43 | 52 | 55 | 53 | 58 | 59 | 94 | |
| DIR. (TENS OF DEGS) | | 30 | 29 | 27 | 19 | 26 | 31 | 28 | 31 | 31 | 28 | 26 | 19 | 26 | |
| YEAR OF OCCURRENCE | | 2000 | 1996 | 1997 | 2000 | 1998 | 2002 | 1996 | 2002 | 2002 | 2003 | 2003 | 2000 | MAY 1998 | |
| PRECIPITATION | NORMAL (IN) | 30 | 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 |
| | MAXIMUM MONTHLY (IN) | 49 | 11.16 | 8.37 | 7.96 | 8.79 | 9.94 | 12.17 | 8.11 | 8.01 | 13.13 | 10.19 | 10.40 | 9.83 | 13.13 |
| | YEAR OF OCCURRENCE | | 1979 | 1981 | 1972 | 1987 | 1984 | 1982 | 1959 | 1991 | 1974 | 1990 | 1972 | 1973 | SEP 1974 |
| | MINIMUM MONTHLY (IN) | 49 | 0.89 | 0.25 | 0.74 | 0.75 | 0.86 | 0.32 | 0.74 | 1.03 | 0.69 | 0.70 | 0.67 | 0.74 | 0.25 |
| | YEAR OF OCCURRENCE | | 1970 | 1987 | 1981 | 2001 | 1959 | 1999 | 1987 | 1981 | 1986 | 2001 | 1976 | 1989 | FEB 1987 |
| | MAXIMUM IN 24 HOURS (IN) | 49 | 2.97 | 2.46 | 4.56 | 3.34 | 3.03 | 3.98 | 3.87 | 5.00 | 4.79 | 3.91 | 2.98 | 3.00 | 5.00 |
| | YEAR OF OCCURRENCE | | 1978 | 1973 | 1987 | 2000 | 1967 | 1986 | 3087 | 1991 | 1960 | 1990 | 1972 | 1986 | AUG 1991 |
| | NORMAL NO. DAYS WITH: | | | | | | | | | | | | | | |
| PRECIPITATION ≥ 0.01 | 30 | 11.9 | 10.6 | 11.9 | 11.9 | 12.3 | 11.3 | 9.7 | 9.1 | 9.5 | 8.9 | 10.8 | 12.2 | 130.1 | |
| PRECIPITATION ≥ 1.00 | 30 | 0.9 | 0.9 | 1.0 | 0.9 | 1.1 | 0.9 | 1.2 | 1.2 | 1.1 | 1.5 | 1.2 | 1.0 | 12.9 | |
| SNOWFALL | NORMAL (IN) | 30 | 15.9 | 13.6 | 11.3 | 3.3 | 0.5 | 0.0 | 0.0 | 0.0 | 0.* | 0.3 | 4.2 | 11.7 | 60.8 |
| | MAXIMUM MONTHLY (IN) | 42 | 46.8 | 45.2 | 44.1 | 21.0 | 12.7 | 0.1 | 0.0 | T | T | 7.5 | 20.7 | 37.0 | 46.8 |
| | YEAR OF OCCURRENCE | | 1987 | 1962 | 1993 | 1987 | 1977 | 1992 | | 1994 | 1994 | 1979 | 1971 | 1992 | JAN 1987 |
| | MAXIMUM IN 24 HOURS (IN) | 42 | 18.7 | 24.0 | 19.7 | 17.0 | 12.7 | 0.1 | 0.0 | T | T | 7.5 | 14.8 | 28.1 | 28.1 |
| | YEAR OF OCCURRENCE | | 1961 | 1962 | 1993 | 1987 | 1977 | 1992 | | 1994 | 1994 | 1979 | 1971 | 1992 | DEC 1992 |
| | MAXIMUM SNOW DEPTH (IN) | 42 | 35 | 42 | 33 | 17 | 10 | 0 | 0 | 0 | 0 | 8 | 15 | 29 | 42 |
| | YEAR OF OCCURRENCE | | 1966 | 1961 | 1969 | 1987 | 1977 | | | | | 1979 | 1971 | 1992 | FEB 1961 |
| NORMAL NO. DAYS WITH: | | | | | | | | | | | | | | | |
| SNOWFALL ≥ 1.0 | 30 | 4.1 | 3.2 | 2.8 | 0.8 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 3.2 | 15.4 | |

PRECIPITATION (inches) 2004 WORCESTER, MA (ORH)

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|----------------|-------|------|------|------|------|-------|------|------|------|-------|------|------|--------|
| 1975 | 5.35 | 3.52 | 3.37 | 2.66 | 2.07 | 3.32 | 3.92 | 4.59 | 7.21 | 6.06 | 5.28 | 4.61 | 51.96 |
| 1976 | 6.03 | 2.57 | 2.74 | 2.45 | 3.46 | 2.95 | 3.28 | 5.72 | 2.38 | 4.99 | 0.67 | 3.20 | 40.44 |
| 1977 | 2.76 | 2.46 | 5.75 | 3.69 | 2.20 | 4.00 | 3.84 | 2.73 | 6.54 | 6.33 | 3.69 | 4.99 | 48.98 |
| 1978 | 9.90 | 2.08 | 3.22 | 2.24 | 3.69 | 1.57 | 3.57 | 5.00 | 1.02 | 3.85 | 2.07 | 3.56 | 41.77 |
| 1979 | 11.16 | 2.64 | 3.71 | 4.49 | 4.14 | 0.79 | 5.74 | 7.39 | 3.80 | 4.36 | 3.58 | 1.89 | 53.69 |
| 1980 | 0.95 | 0.73 | 6.86 | 4.77 | 2.23 | 4.55 | 3.59 | 1.95 | 1.82 | 6.16 | 4.58 | 1.06 | 39.25 |
| 1981 | 0.93 | 8.37 | 0.74 | 3.85 | 4.48 | 2.45 | 7.90 | 1.03 | 4.66 | 5.49 | 3.13 | 5.94 | 48.97 |
| 1982 | 5.00 | 3.22 | 3.67 | 4.30 | 2.96 | 12.17 | 3.61 | 3.36 | 2.69 | 2.67 | 4.32 | 1.70 | 49.67 |
| 1983 | 4.85 | 4.67 | 7.84 | 8.59 | 5.97 | 2.56 | 1.32 | 6.26 | 1.38 | 5.77 | 8.75 | 6.37 | 64.33 |
| 1984 | 2.44 | 5.78 | 5.47 | 4.23 | 9.94 | 2.85 | 5.69 | 1.17 | 1.68 | 3.99 | 2.71 | 2.84 | 48.79 |
| 1985 | 1.16 | 2.72 | 2.89 | 1.26 | 5.46 | 5.24 | 6.35 | 3.74 | 3.77 | 3.12 | 6.41 | 1.93 | 44.05 |
| 1986 | 5.56 | 3.14 | 2.93 | 1.59 | 3.14 | 7.21 | 4.83 | 3.20 | 0.69 | 2.72 | 5.63 | 7.25 | 47.89 |
| 1987 | 5.52 | 0.25 | 6.57 | 8.79 | 1.55 | 4.55 | 0.74 | 4.61 | 6.37 | 4.18 | 2.77 | 1.85 | 47.75 |
| 1988 | 2.71 | 2.78 | 3.46 | 3.45 | 4.47 | 1.25 | 6.27 | 2.19 | 2.70 | 3.66 | 7.91 | 1.42 | 42.27 |
| 1989 | 1.18 | 2.47 | 2.66 | 4.25 | 6.17 | 5.27 | 5.67 | 5.65 | 4.71 | 8.21 | 4.00 | 0.74 | 50.98 |
| 1990 | 3.75 | 3.88 | 1.52 | 4.78 | 7.65 | 1.74 | 2.44 | 6.84 | 1.73 | 10.19 | 2.41 | 5.46 | 52.39 |
| 1991 | 2.98 | 2.08 | 4.92 | 5.04 | 4.16 | 3.06 | 2.78 | 8.01 | 6.40 | 3.44 | 5.47 | 2.89 | 51.23 |
| 1992 | 3.01 | 2.51 | 4.15 | 2.59 | 2.54 | 4.68 | 5.25 | 4.83 | 3.58 | 2.36 | 4.94 | 4.61 | 45.05 |
| 1993 | 2.56 | 2.38 | 5.46 | 4.00 | 1.79 | 2.36 | 3.34 | 1.90 | 8.85 | 3.88 | 4.85 | 5.11 | 46.48 |
| 1994 | 4.78 | 1.86 | 5.38 | 2.73 | 5.87 | 2.48 | 3.09 | 7.64 | 4.84 | 1.24 | 4.54 | 4.81 | 49.26 |
| 1995 | 3.71 | 2.86 | 1.85 | 2.19 | 2.39 | 1.51 | 4.33 | 2.02 | 3.15 | 8.65 | 4.61 | 1.04 | 38.31 |
| 1996 | 6.30 | 2.66 | 2.20 | 6.70 | 3.34 | 3.01 | 6.50 | 3.99 | 6.07 | 5.81 | 2.93 | 6.91 | 56.42 |
| 1997 | 3.25 | 1.71 | 4.66 | 3.22 | 2.72 | 1.60 | 2.97 | 4.34 | 1.44 | 2.11 | 5.50 | 2.32 | 35.84 |
| 1998 | 4.59 | 3.17 | 5.82 | 3.30 | 5.89 | 9.68 | 1.76 | 2.38 | 1.69 | 4.93 | 2.28 | 1.46 | 46.95 |
| 1999 | 6.01 | 3.38 | 4.09 | 0.92 | 2.77 | 0.32 | 4.14 | 1.87 | 8.81 | 3.57 | 3.38 | 2.55 | 41.81 |
| 2000 | 3.11 | 2.59 | 3.82 | 6.85 | 3.51 | 5.84 | 4.04 | 2.09 | 3.01 | 2.05 | 3.61 | 3.62 | 44.14 |
| 2001 | 1.64 | 2.40 | 6.53 | 0.75 | 2.26 | 6.27 | 1.91 | 2.31 | 3.42 | 0.70 | 1.36 | 2.77 | 32.32 |
| 2002 | 2.36 | 1.43 | 4.21 | 3.67 | 5.55 | 4.83 | 2.65 | 2.94 | 3.97 | 4.39 | 3.83 | 4.24 | 44.07 |
| 2003 | 2.36 | 4.43 | 4.06 | 3.43 | 4.12 | 6.16 | 3.06 | 5.34 | 4.25 | 5.41 | 2.19 | 5.71 | 50.52 |
| 2004 | 1.43 | 1.45 | 3.35 | 6.57 | 3.23 | 1.45 | 4.84 | 5.07 | 7.52 | 2.22 | 3.93 | 4.78 | 45.84 |
| POR= 56 YRS | 3.65 | 3.18 | 4.10 | 3.98 | 3.98 | 3.71 | 3.58 | 4.09 | 4.04 | 4.10 | 4.34 | 3.90 | 46.65 |

WBAN : 94746

AVERAGE TEMPERATURE (°F) 2004 WORCESTER, MA (ORH)

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| 1975 | 27.5 | 25.2 | 31.3 | 40.8 | 60.1 | 63.6 | 71.8 | 67.5 | 57.3 | 51.5 | 45.2 | 27.3 | 47.4 |
| 1976 | 19.2 | 31.2 | 35.1 | 49.1 | 55.0 | 68.0 | 67.8 | 67.2 | 58.9 | 46.4 | 34.6 | 21.9 | 46.2 |
| 1977 | 16.2 | 24.9 | 39.1 | 45.9 | 58.1 | 62.4 | 69.3 | 68.6 | 59.6 | 49.3 | 41.1 | 26.0 | 46.7 |
| 1978 | 20.9 | 20.0 | 30.8 | 42.4 | 56.6 | 64.3 | 68.2 | 68.1 | 57.6 | 48.4 | 39.2 | 28.8 | 45.4 |
| 1979 | 25.3 | 16.5 | 38.2 | 44.7 | 57.7 | 63.6 | 71.2 | 67.7 | 60.0 | 49.0 | 44.3 | 31.9 | 47.5 |
| 1980 | 25.0 | 22.2 | 33.1 | 46.0 | 57.0 | 61.5 | 71.3 | 69.9 | 61.1 | 47.3 | 36.4 | 24.2 | 46.3 |
| 1981 | 15.9 | 32.8 | 34.7 | 47.4 | 57.9 | 66.0 | 70.7 | 67.4 | 58.2 | 46.7 | 39.1 | 27.8 | 47.1 |
| 1982 | 17.1 | 25.7 | 33.8 | 43.6 | 58.3 | 61.5 | 71.5 | 65.9 | 61.3 | 50.8 | 43.8 | 34.8 | 47.3 |
| 1983 | 26.1 | 29.1 | 36.6 | 46.6 | 54.7 | 67.9 | 72.3 | 70.2 | 64.9 | 50.3 | 42.0 | 27.3 | 49.0 |
| 1984 | 22.7 | 34.0 | 29.2 | 45.6 | 55.4 | 68.1 | 70.0 | 71.4 | 59.6 | 53.9 | 41.1 | 34.9 | 48.8 |
| 1985 | 20.1 | 28.6 | 37.2 | 47.4 | 57.8 | 61.4 | 70.4 | 67.9 | 62.0 | 51.7 | 40.9 | 25.3 | 47.6 |
| 1986 | 25.9 | 23.1 | 36.4 | 48.1 | 57.9 | 62.6 | 68.2 | 66.8 | 59.4 | 49.6 | 37.1 | 30.3 | 47.1 |
| 1987 | 24.0 | 24.5 | 36.8 | 45.7 | 57.6 | 65.8 | 70.7 | 66.6 | 60.6 | 48.8 | 39.4 | 30.8 | 47.6 |
| 1988 | 23.0 | 26.6 | 35.0 | 43.8 | 57.3 | 64.6 | 72.6 | 72.3 | 60.2 | 45.5 | 41.7 | 27.2 | 47.5 |
| 1989 | 28.5 | 24.4 | 33.0 | 42.4 | 57.0 | 64.0 | 68.7 | 67.3 | 60.6 | 50.7 | 36.5 | 15.1 | 45.7 |
| 1990 | 31.3 | 28.8 | 36.2 | 43.9 | 51.5 | 64.6 | 69.2 | 68.8 | 59.3 | 53.0 | 42.1 | 34.0 | 48.6 |
| 1991 | 23.8 | 30.3 | 36.5 | 48.2 | 61.2 | 64.7 | 70.0 | 69.1 | 58.7 | 51.9 | 40.2 | 29.7 | 48.7 |
| 1992 | 25.3 | 27.1 | 30.7 | 42.3 | 55.5 | 63.5 | 65.9 | 65.5 | 59.2 | 46.8 | 37.8 | 28.7 | 45.7 |
| 1993 | 26.0 | 19.6 | 31.3 | 45.7 | 57.8 | 64.5 | 70.4 | 70.0 | 59.5 | 47.2 | 39.7 | 28.9 | 46.7 |
| 1994 | 15.9 | 21.1 | 33.5 | 47.7 | 54.3 | 67.2 | 72.9 | 66.3 | 59.0 | 50.9 | 43.5 | 33.3 | 47.1 |
| 1995 | 29.8 | 23.0 | 36.1 | 42.6 | 54.4 | 65.5 | | | 59.4 | 53.5 | 35.5 | 24.1 | |
| 1996 | 23.4 | 24.9 | 31.6 | 45.3 | 54.9 | 65.9 | | 68.9 | 61.1 | 49.7 | 35.9 | 33.2 | |
| 1997 | 23.6 | 0.0 | 31.9 | 43.5 | 52.2 | 65.8 | 69.1 | 67.6 | 60.3 | 48.8 | 36.2 | 30.0 | 44.1 |
| 1998 | | 32.9 | 37.0 | 47.2 | 59.7 | 62.9 | 70.0 | 70.3 | 63.1 | 50.3 | 40.2 | 35.7 | |
| 1999 | 26.0 | 31.3 | 36.3 | 46.7 | 58.1 | 68.2 | 72.4 | 68.5 | 64.6 | 49.1 | 44.5 | 32.9 | 49.9 |
| 2000 | 23.0 | 30.0 | 40.4 | 44.7 | 56.2 | 64.6 | 66.5 | 66.9 | 59.5 | 50.1 | 39.2 | 23.7 | 47.1 |
| 2001 | 24.7 | 26.1 | 31.1 | 46.8 | 58.1 | 67.0 | 66.6 | 72.2 | 62.2 | 52.5 | 44.5 | 35.4 | 48.9 |
| 2002 | 31.8 | 32.1 | 36.0 | 47.7 | 54.2 | 63.4 | 70.8 | 71.1 | 64.7 | 47.7 | 37.6 | 28.1 | 48.8 |
| 2003 | 17.7 | 21.6 | 35.0 | 42.5 | 54.0 | 63.8 | 70.6 | 70.7 | 62.5 | 48.7 | 43.4 | 31.3 | 46.8 |
| 2004 | 15.1 | 27.4 | 35.9 | 47.3 | 58.4 | 64.1 | 69.0 | 68.9 | 62.7 | 49.9 | 40.6 | 29.4 | 47.4 |
| POR= 56 YRS | 23.2 | 25.3 | 33.7 | 45.2 | 56.0 | 64.9 | 68.6 | 68.4 | 60.5 | 50.3 | 39.7 | 28.4 | 47.0 |

HEATING DEGREE DAYS (base 65°F) 2004 WORCESTER, MA (ORH)

| YEAR | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | TOTAL |
|---------|-----|-----|-----|-----|-----|------|------|------|------|-----|-----|-----|-------|
| 1975-76 | 2 | 47 | 223 | 413 | 586 | 1161 | 1412 | 972 | 920 | 511 | 310 | 60 | 6617 |
| 1976-77 | 17 | 46 | 192 | 571 | 905 | 1331 | 1508 | 1115 | 798 | 571 | 244 | 115 | 7413 |
| 1977-78 | 16 | 32 | 189 | 481 | 711 | 1202 | 1359 | 1255 | 1054 | 674 | 288 | 69 | 7330 |
| 1978-79 | 33 | 38 | 229 | 511 | 767 | 1116 | 1225 | 1354 | 824 | 601 | 243 | 80 | 7021 |
| 1979-80 | 25 | 53 | 180 | 500 | 614 | 1019 | 1235 | 1233 | 983 | 562 | 246 | 148 | 6798 |
| 1980-81 | 2 | 19 | 165 | 540 | 853 | 1259 | 1516 | 894 | 934 | 521 | 241 | 42 | 6986 |
| 1981-82 | 1 | 29 | 204 | 562 | 772 | 1145 | 1478 | 1094 | 961 | 639 | 212 | 127 | 7224 |
| 1982-83 | 7 | 55 | 140 | 436 | 632 | 929 | 1199 | 996 | 871 | 548 | 318 | 44 | 6175 |
| 1983-84 | 5 | 20 | 115 | 459 | 682 | 1163 | 1303 | 892 | 1099 | 577 | 300 | 54 | 6669 |
| 1984-85 | 9 | 1 | 184 | 338 | 713 | 928 | 1382 | 1011 | 855 | 518 | 230 | 121 | 6290 |
| 1985-86 | 2 | 25 | 128 | 406 | 713 | 1223 | 1206 | 1166 | 879 | 501 | 262 | 119 | 6630 |
| 1986-87 | 48 | 49 | 182 | 471 | 830 | 1069 | 1266 | 1130 | 867 | 571 | 273 | 58 | 6814 |
| 1987-88 | 9 | 56 | 152 | 495 | 761 | 1052 | 1298 | 1107 | 922 | 629 | 253 | 115 | 6849 |
| 1988-89 | 19 | 32 | 155 | 597 | 693 | 1166 | 1123 | 1129 | 984 | 674 | 257 | 90 | 6919 |
| 1989-90 | 7 | 38 | 172 | 436 | 846 | 1540 | 1035 | 1006 | 884 | 632 | 413 | 58 | 7067 |
| 1990-91 | 22 | 30 | 192 | 379 | 683 | 957 | 1270 | 965 | 877 | 501 | 167 | 80 | 6123 |
| 1991-92 | 13 | 16 | 222 | 402 | 739 | 1090 | 1222 | 1092 | 1056 | 676 | 321 | 82 | 6931 |
| 1992-93 | 40 | 55 | 203 | 558 | 810 | 1117 | 1204 | 1259 | 1039 | 574 | 229 | 74 | 7162 |
| 1993-94 | 10 | 5 | 201 | 545 | 754 | 1115 | 1515 | 1226 | 968 | 515 | 337 | 49 | 7240 |
| 1994-95 | 5 | 48 | 182 | 431 | 636 | 975 | 1086 | 1170 | 887 | 667 | 329 | 58 | 6474 |
| 1995-96 | | | 191 | 352 | 877 | 1260 | 1279 | 1158 | 1031 | 587 | 331 | 36 | |
| 1996-97 | | 14 | 159 | 467 | 863 | 980 | 1277 | | 1020 | 638 | 394 | 93 | |
| 1997-98 | 15 | 18 | 158 | 498 | 858 | 1079 | | 891 | 872 | 527 | 180 | 111 | |
| 1998-99 | 3 | 8 | 98 | 450 | 736 | 902 | 1201 | 938 | 882 | 540 | 226 | 39 | 6023 |
| 1999-00 | 7 | 27 | 91 | 486 | 609 | 989 | 1295 | 1008 | 758 | 602 | 289 | 100 | 6261 |
| 2000-01 | 26 | 38 | 190 | 455 | 769 | 1273 | 1243 | 1081 | 1045 | 544 | 258 | 44 | 6966 |
| 2001-02 | 38 | 1 | 117 | 391 | 608 | 910 | 1022 | 913 | 892 | 527 | 337 | 125 | 5881 |
| 2002-03 | 13 | 28 | 73 | 537 | 816 | 1137 | 1456 | 1209 | 925 | 667 | 337 | 104 | 7302 |
| 2003-04 | 4 | 16 | 91 | 497 | 641 | 1040 | 1540 | 1083 | 897 | 526 | 220 | 88 | 6643 |
| 2004- | 11 | 22 | 94 | 459 | 728 | 1095 | | | | | | | |

WBAN : 94746

COOLING DEGREE DAYS (base 65°F) 2004 WORCESTER, MA (ORH)

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|
| 1975 | 0 | 0 | 0 | 0 | 33 | 69 | 218 | 132 | 0 | 1 | 0 | 0 | 453 |
| 1976 | 0 | 0 | 0 | 37 | 7 | 154 | 110 | 119 | 16 | 0 | 0 | 0 | 443 |
| 1977 | 0 | 0 | 2 | 4 | 37 | 44 | 156 | 150 | 32 | 0 | 0 | 0 | 425 |
| 1978 | 0 | 0 | 0 | 0 | 32 | 57 | 138 | 137 | 14 | 0 | 0 | 0 | 378 |
| 1979 | 0 | 0 | 0 | 0 | 24 | 44 | 225 | 142 | 38 | 10 | 0 | 0 | 483 |
| 1980 | 0 | 0 | 0 | 0 | 8 | 48 | 206 | 178 | 57 | 0 | 0 | 0 | 497 |
| 1981 | 0 | 0 | 0 | 0 | 29 | 78 | 184 | 110 | 10 | 0 | 0 | 0 | 411 |
| 1982 | 0 | 0 | 0 | 0 | 8 | 29 | 216 | 92 | 34 | 0 | 0 | 0 | 379 |
| 1983 | 0 | 0 | 0 | 4 | 4 | 138 | 238 | 188 | 118 | 11 | 0 | 0 | 701 |
| 1984 | 0 | 0 | 0 | 2 | 10 | 156 | 171 | 209 | 30 | 0 | 0 | 0 | 578 |
| 1985 | 0 | 0 | 0 | 0 | 15 | 22 | 177 | 120 | 47 | 0 | 0 | 0 | 381 |
| 1986 | 0 | 0 | 0 | 0 | 50 | 54 | 151 | 111 | 21 | 2 | 0 | 0 | 389 |
| 1987 | 0 | 0 | 0 | 0 | 49 | 90 | 193 | 110 | 25 | 0 | 0 | 0 | 467 |
| 1988 | 0 | 0 | 0 | 0 | 24 | 112 | 260 | 266 | 17 | 1 | 0 | 0 | 680 |
| 1989 | 0 | 0 | 0 | 0 | 16 | 70 | 131 | 116 | 47 | 0 | 0 | 0 | 380 |
| 1990 | 0 | 0 | 0 | 6 | 0 | 52 | 159 | 153 | 25 | 10 | 0 | 0 | 405 |
| 1991 | 0 | 0 | 0 | 4 | 57 | 79 | 173 | 149 | 40 | 2 | 0 | 0 | 504 |
| 1992 | 0 | 0 | 0 | 0 | 30 | 44 | 75 | 78 | 37 | 0 | 0 | 0 | 264 |
| 1993 | 0 | 0 | 0 | 0 | 12 | 67 | 181 | 163 | 44 | 0 | 0 | 0 | 467 |
| 1994 | 0 | 0 | 0 | 0 | 12 | 122 | 260 | 97 | 9 | 0 | 0 | 0 | 500 |
| 1995 | 0 | 0 | 0 | 0 | 6 | 77 | | | 29 | 3 | 0 | 0 | |
| 1996 | 0 | 0 | 0 | 2 | 23 | 70 | | 143 | 47 | 0 | 0 | 0 | |
| 1997 | 0 | | 0 | 0 | 0 | 123 | 148 | 106 | 25 | 2 | 0 | 0 | |
| 1998 | 0 | 0 | 10 | 0 | 21 | 58 | 165 | 181 | 47 | 0 | 0 | 0 | |
| 1999 | 0 | 0 | 0 | 0 | 19 | 142 | 245 | 140 | 86 | 0 | 0 | 0 | 632 |
| 2000 | 0 | 0 | 0 | 0 | 22 | 95 | 82 | 104 | 31 | 1 | 0 | 0 | 335 |
| 2001 | 0 | 0 | 0 | 4 | 51 | 109 | 95 | 232 | 41 | 7 | 0 | 0 | 539 |
| 2002 | 0 | 0 | 0 | 16 | 10 | 82 | 199 | 226 | 70 | 6 | 0 | 0 | 609 |
| 2003 | 0 | 0 | 0 | 0 | 4 | 76 | 185 | 200 | 23 | 0 | 0 | 0 | 488 |
| 2004 | 0 | 0 | 0 | 1 | 23 | 66 | 143 | 149 | 33 | 0 | 0 | 0 | 415 |

SNOWFALL (inches) 2004 WORCESTER, MA (ORH)

| YEAR | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | TOTAL |
|----------------|-----|-----|-----|-----|------|------|------|------|------|------|------|-----|-------|
| 1975-76 | 0.0 | 0.0 | 0.0 | T | 1.5 | 18.1 | 21.6 | 4.7 | 16.4 | T | T | 0.0 | 62.3 |
| 1976-77 | 0.0 | 0.0 | 0.0 | T | 3.0 | 13.5 | 21.7 | 13.8 | 21.5 | 1.0 | 12.7 | 0.0 | 87.2 |
| 1977-78 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 13.7 | 34.2 | 20.8 | 15.0 | T | T | 0.0 | 85.9 |
| 1978-79 | 0.0 | 0.0 | 0.0 | 0.0 | 5.4 | 13.1 | 16.0 | 6.5 | 1.3 | 5.4 | 0.0 | 0.0 | 47.7 |
| 1979-80 | 0.0 | 0.0 | 0.0 | 7.5 | 0.0 | 2.1 | 0.8 | 6.5 | 9.7 | T | 0.0 | 0.0 | 26.6 |
| 1980-81 | 0.0 | 0.0 | 0.0 | 0.0 | 9.0 | 6.8 | 12.5 | 11.4 | 3.3 | T | T | 0.0 | 43.0 |
| 1981-82 | 0.0 | 0.0 | 0.0 | T | T | 24.6 | 16.7 | 6.5 | 11.0 | 15.1 | 0.0 | 0.0 | 73.9 |
| 1982-83 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 6.4 | 18.6 | 32.1 | 3.5 | 2.3 | T | 0.0 | 63.4 |
| 1983-84 | 0.0 | 0.0 | 0.0 | T | 1.1 | 17.2 | 24.1 | 3.3 | 30.9 | T | T | 0.0 | 76.6 |
| 1984-85 | 0.0 | 0.0 | 0.0 | 0.0 | T | 7.0 | 9.7 | 11.0 | 7.2 | 4.9 | 0.0 | 0.0 | 39.8 |
| 1985-86 | 0.0 | 0.0 | 0.0 | 0.0 | 6.9 | 9.1 | 5.8 | 14.5 | 2.3 | 0.1 | 0.3 | 0.0 | 39.0 |
| 1986-87 | 0.0 | 0.0 | 0.0 | 0.0 | 11.5 | 4.9 | 46.8 | 3.0 | 6.4 | 21.0 | 0.0 | 0.0 | 93.6 |
| 1987-88 | 0.0 | 0.0 | 0.0 | 0.0 | 10.2 | 12.9 | 25.2 | 15.8 | 6.4 | 0.6 | 0.0 | 0.0 | 71.1 |
| 1988-89 | 0.0 | 0.0 | 0.0 | 0.4 | T | 5.0 | 2.8 | 7.7 | 8.5 | 3.7 | 0.0 | 0.0 | 28.1 |
| 1989-90 | 0.0 | 0.0 | 0.0 | 0.0 | 7.9 | 10.2 | 11.3 | 15.2 | 6.4 | 2.1 | 0.0 | T | 53.1 |
| 1990-91 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 5.0 | 11.3 | 9.1 | 9.3 | 0.2 | 0.0 | 0.0 | 35.6 |
| 1991-92 | 0.0 | 0.0 | 0.0 | 0.0 | 5.8 | 14.5 | 2.7 | 8.4 | 11.8 | 2.7 | 0.0 | 0.1 | 46.0 |
| 1992-93 | 0.0 | 0.0 | T | 0.0 | 1.9 | 37.0 | 14.6 | 19.7 | 44.1 | 2.8 | 0.0 | T | 120.1 |
| 1993-94 | 0.0 | 0.0 | 0.0 | T | 0.2 | 12.9 | 34.1 | 25.9 | 27.1 | 0.0 | T | 0.0 | 100.2 |
| 1994-95 | 0.0 | T | T | 0.0 | 2.9 | 3.2 | 4.5 | 14.3 | T | T | 0.0 | 0.0 | 24.9 |
| 1995-96 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | | | | |
| 1996-97 | | | | | | | | | | | | | |
| 1997-98 | | | | | | | | | | | | | |
| 1998-99 | | | | | | | | | | | | | |
| 1999-00 | | | | | | | | | | | | | |
| 2000-01 | | | | | | | | | | | | | |
| 2001-02 | | | | | | | | | | | | | |
| 2002-03 | | | | | | | 22.0 | 38.9 | 8.3 | 5.1 | 0.0 | 0.0 | |
| 2003-04 | 0.0 | 0.0 | 0.0 | 1.5 | T | 21.5 | 13.0 | 5.9 | 7.6 | T | 0.0 | 0.0 | 49.5 |
| 2004- | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 11.9 | | | | | | | |
| POR= 42 YRS | 0.0 | T | T | 0.5 | 3.5 | 13.4 | 15.9 | 16.1 | 13.5 | 3.5 | 0.3 | 0.0 | 66.7 |

WBAN : 94746

REFERENCE NOTES :

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| <p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1971 - 2000). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD.</p> | <p>GENERAL CONTINUED: CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED. WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65° F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.</p> <p>ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.</p> |
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2004
WORCESTER,
MASSACHUSETTS (ORH)

Worcester Municipal Airport is located on the crest of a hill, 1,000 feet above sea level. It is about 500 feet above and 3 1/2 miles northwest of the city proper. The airport is surrounded by ridges and valleys with many of the valleys containing reservoirs. Only two of the ridges extend above the airport elevation. One is 400 feet higher and 2 1/2 miles to the northwest, and the other is 1,000 feet higher and 15 miles to the north.

The proximity to the Atlantic Ocean, Long Island Sound, and the Berkshire Hills plays an important part in determining the weather and, hence, the climate of Worcester. Rapid weather changes occur when storms move up the east coast after developing off the Carolina Coast. In the majority of these cases, they pass to the south and east, resulting in northeast and easterly winds with rain or snow and fog. Storms developing in the Texas-Oklahoma area normally travel up the St. Lawrence River Valley and, depending on the movement and intensity, usually deposit little precipitation over the area. However, they do bring an influx of warm air into the region. Wintertime cold snaps are quite frequent, but temperatures are usually modified by the passage of the air over land and mountains before reaching the county. Summertime thunderstorms develop over the hills to the west, with a majority moving toward the northeast. From the use of radar, we find many break up just before reaching Worcester, or pass either north or south of the city proper.

Airport site temperatures are moderate. The normal mean for the warmest month, July, is around 70 degrees. Though winters are reasonably cold, prolonged periods of severe cold weather are extremely rare. The three coldest months, December through February, have an average temperature of over 25 degrees. A review of Worcester Cooperative records since 1901 shows maximum temperatures above 100 degrees and minimum temperatures below -24 degrees.

Precipitation is usually plentiful and well distributed throughout the year. The annual snowfall for all Worcester sites since 1901, averages slightly less than 60 inches. The airport location averages slightly higher.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is October 17 and the average last occurrence in the spring is April 27.

STATION LOCATION

WORCESTER, MASSACHUSETTS

| LOCATION | Occupied From | Occupied To | Airline Distances and Directions from previous Location | LATITUDE NORTH | LONGITUDE WEST | ELEVATION ABOVE | | | | | | | | | | AUTOMATIC OBSERVING EQUIPMENT * | * TYPE | REMARKS |
|--|---------------|-------------|---|----------------|----------------|-----------------|-------------------|-----------------|----------------------|--------------|-----------------|---------------|---------------|------------------|------------|---------------------------------|---|--------------------------|
| | | | | | | GROUND | | | | | | | | | | | | |
| | | | | | | SEA LEVEL | GROUND | WIND INSTRUMENT | EXTREME THERMOMETERS | PSYCHROMETER | SUNSHINE SWITCH | TIPPING GAUGE | RAINING GAUGE | 8 INCH RAIN GAGE | HYGROMETER | | | |
| *NOTES: <u>AIRPORT</u> Building on SE corner of airport Control Tower Building East side of runways Municipal Airport | 11/29/47 | 4/27/54 | | 42°16' | 71°52' | 986 | 69 | 5 | 4 | | | | | | | | | CAA taking observations. |
| Worcester Regional Airport | 4/27/54 | 07/01/95 | 3/4 mi. NW | 42°16' | 71°52' | 986 | a22 h33 k33 | 5 f5 | d6 | NA | b5 j4 | NA | 5 g5 m4 | e4 i5 | M | | Weather Bureau opened office 1/1/55 and assumed observation a. 69 feet prior to relocation to field site 8/25/59. b. Installed 11/1/55. 3 feet to 10/18/67. M. Commissioned 11/29/56. 20' to 5/10/66 & 6' thereafter. d. 4 feet to 5/10/66. Removed before 12/73. e. Commissioned 2/28/75. f. Moved 265' SSW 11/18/81. g. Moved 285' SSW 11/18/81. h. Raised 8/1/84. i. Minor move 6/1/85. j. Moved about 500; NW 6/1/85. k. Moved 2370' SE 6/1/85. m. Minor move 11/18/85 | |
| | 07/01/95 | Present | NA | 42°16' | 71°53' | n963 | | | | | | | | | S | | ASOS Commissioned 07/01/95 n. Ground Elevation | |

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* NOTES: For earlier station history see previous edition.