

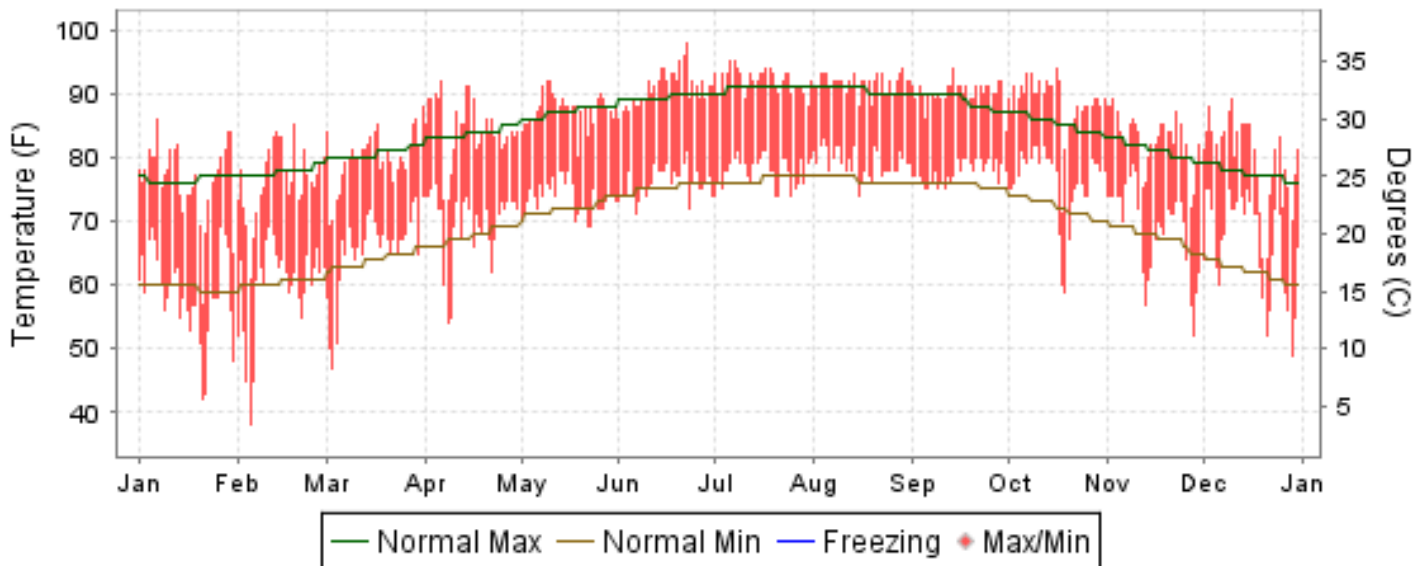


# 2009 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

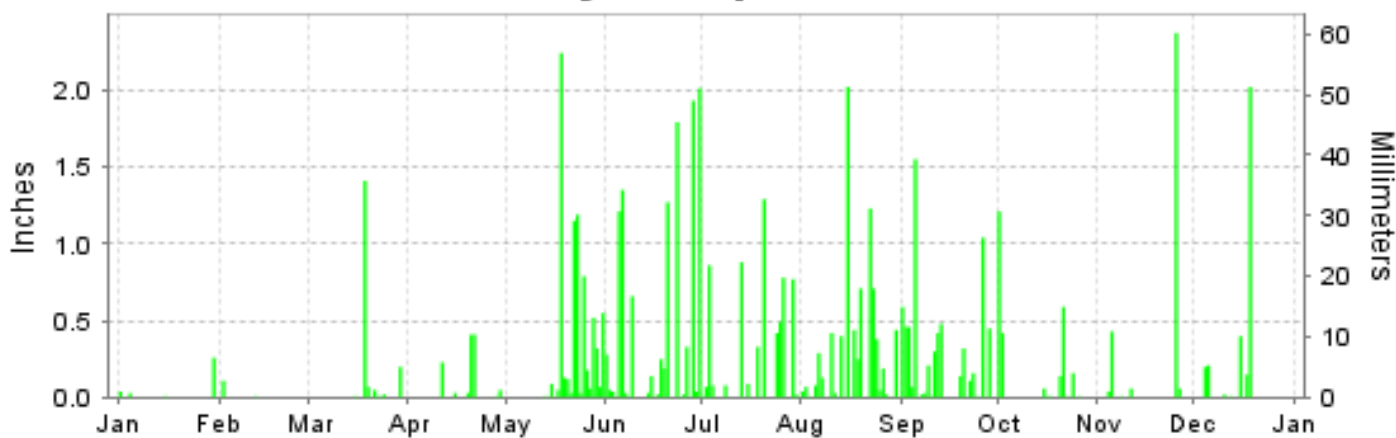
ISSN 0198-1269

## MIAMI, FLORIDA (KMIA)

### Daily Max/Min Temperature



### Daily Precipitation



### Daily Station Pressure



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AND INFORMATION SERVICE

NATIONAL  
CLIMATIC DATA CENTER  
ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2009

## MIAMI (KMIA)

LATITUDE: 25 ° 49'N      LONGITUDE: -80 ° 17'W      ELEVATION (FT): GRND: 6      BARO: 29      TIME ZONE: EASTERN (UTC -5)      WBAN: 12839

| ELEMENT                  |                             | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC    | YEAR   |  |
|--------------------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--|
| TEMPERATURE °F           | MEAN DAILY MAXIMUM          | 76.5  | 76.4  | 79.8  | 84.4  | 87.5  | 90.9  | 92.0  | 91.6  | 90.1  | 88.6  | 82.7  | 79.7   | 85.0   |  |
|                          | HIGHEST DAILY MAXIMUM       | 86    | 85    | 88    | 92    | 92    | 98    | 95    | 94    | 94    | 94    | 89    | 89     | 98     |  |
|                          | DATE OF OCCURRENCE          | 07    | 19    | 31    | 06    | 10+   | 22    | 07+   | 29    | 14    | 16    | 03    | 10     | JUN 22 |  |
|                          | MEAN DAILY MINIMUM          | 58.6  | 59.7  | 65.6  | 69.6  | 73.6  | 76.0  | 77.9  | 79.2  | 77.7  | 76.2  | 68.8  | 66.3   | 70.8   |  |
|                          | LOWEST DAILY MINIMUM        | 42    | 38    | 47    | 54    | 69    | 71    | 74    | 74    | 75    | 59    | 52    | 49     | 38     |  |
|                          | DATE OF OCCURRENCE          | 21    | 05    | 03    | 08    | 23+   | 06    | 25+   | 15    | 11+   | 19    | 28    | 29     | FEB 05 |  |
|                          | AVERAGE DRY BULB            | 67.6  | 68.1  | 72.7  | 77.0  | 80.6  | 83.5  | 85.0  | 85.4  | 83.9  | 82.4  | 75.8  | 73.0   | 77.9   |  |
|                          | MEAN WET BULB               | 60.9  | 60.4  | 64.5  | 68.0  | 72.8  | 76.0  | 77.0  | 78.3  | 77.1  | 74.9  | 68.1  | 67.9   | 70.5   |  |
|                          | MEAN DEW POINT              | 56.1  | 54.6  | 59.4  | 63.0  | 69.4  | 73.2  | 74.0  | 75.4  | 74.5  | 71.6  | 63.8  | 64.7   | 66.6   |  |
|                          | NUMBER OF DAYS WITH:        |       |       |       |       |       |       |       |       |       |       |       |        |        |  |
|                          | MAXIMUM >= 90°              | 0     | 0     | 0     | 4     | 5     | 18    | 29    | 29    | 22    | 14    | 0     | 0      | 121    |  |
|                          | MAXIMUM <= 32°              | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0      |  |
|                          | MINIMUM <= 32°              | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0      |  |
| MINIMUM <= 0°            | 0                           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      |        |  |
| H/C                      | HEATING DEGREE DAYS         | 40    | 36    | 14    | 1     | 0     | 0     | 0     | 0     | 0     | 0     | 2     | 16     | 109    |  |
|                          | COOLING DEGREE DAYS         | 128   | 128   | 259   | 368   | 489   | 563   | 626   | 638   | 574   | 543   | 331   | 270    | 4917   |  |
| RH                       | MEAN (PERCENT)              | 69    | 64    | 66    | 65    | 72    | 76    | 73    | 74    | 77    | 73    | 69    | 77     | 71     |  |
|                          | HOUR 01 LST                 | 80    | 74    | 75    | 76    | 81    | 85    | 81    | 83    | 86    | 81    | 78    | 85     | 80     |  |
|                          | HOUR 07 LST                 | 78    | 75    | 72    | 68    | 73    | 76    | 75    | 74    | 80    | 76    | 78    | 84     | 76     |  |
|                          | HOUR 13 LST                 | 53    | 49    | 52    | 51    | 60    | 66    | 64    | 65    | 68    | 61    | 56    | 65     | 59     |  |
|                          | HOUR 19 LST                 | 69    | 64    | 69    | 67    | 75    | 77    | 72    | 74    | 78    | 73    | 68    | 78     | 72     |  |
| S                        | PERCENT POSSIBLE SUNSHINE   |       |       |       |       |       |       |       |       |       |       |       |        |        |  |
| W/O                      | NUMBER OF DAYS WITH:        |       |       |       |       |       |       |       |       |       |       |       |        |        |  |
|                          | HEAVY FOG(VISBY <= 1/4 MI)  | 1     | 0     | 0     | 0     | 0     | 0     | 0     | 1     | 0     | 0     | 0     | 0      | 2      |  |
|                          | THUNDERSTORMS               | 0     | 0     | 0     | 1     | 11    | 15    | 14    | 11    | 10    | 0     | 1     | 1      | 64     |  |
| CLOUDNESS                | 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.)   | 30.09 | 30.15 | 30.09 | 30.04 | 29.96 | 29.91 | 30.01 | 29.99 | 29.93 | 29.95 | 29.95 | 30.01  | 30.01  |  |
|                          | MEAN SEA-LEVEL PRESS. (IN.) | 30.12 | 30.18 | 30.12 | 30.07 | 30.00 | 29.94 | 30.05 | 30.02 | 29.96 | 29.98 | 29.99 | 30.04  | 30.04  |  |
| WINDS                    | RESULTANT SPEED (MPH)       | 1.6   | 3.7   | 6.4   | 5.5   | 7.0   | 2.5   | 2.3   | 4.9   | 2.2   | 3.6   | 2.8   | 2.1    | 3.3    |  |
|                          | RES. DIR. (TENS OF DEGS.)   | 06    | 07    | 10    | 11    | 12    | 18    | 13    | 11    | 09    | 10    | 06    | 09     | 11     |  |
|                          | MEAN SPEED (MPH)            | 7.7   | 8.8   | 10.3  | 10.6  | 8.5   | 6.2   | 5.0   | 6.7   | 4.9   | 6.8   | 6.9   | 7.5    | 7.5    |  |
|                          | PREVAIL.DIR.(TENS OF DEGS.) | 34    | 07    | 09    | 08    | 11    | 13    | 14    | 11    | 09    | 09    | 10    | 33     | 11     |  |
|                          | MAXIMUM 2-MINUTE WIND       |       |       |       |       |       |       |       |       |       |       |       |        |        |  |
|                          | SPEED (MPH)                 | 32    | 23    | 26    | 25    | 29    | 26    | 37    | 32    | 21    | 26    | 30    | 24     | 37     |  |
|                          | DIR. (TENS OF DEGS.)        | 33    | 09    | 24    | 08    | 24    | 25    | 05    | 13    | 22    | 09    | 09    | 09     | 05     |  |
|                          | DATE OF OCCURRENCE          | 07    | 09    | 01    | 27    | 26    | 30    | 20    | 18    | 13    | 20    | 08    | 24     | JUL 20 |  |
|                          | MAXIMUM 3-SECOND WIND:      |       |       |       |       |       |       |       |       |       |       |       |        |        |  |
|                          | SPEED (MPH)                 | 32    | 29    | 37    | 32    | 37    | 33    | 56    | 44    | 28    | 30    | 39    | 31     | 56     |  |
| DIR. (TENS OF DEGS.)     | 33                          | 15    | 22    | 09    | 24    | 24    | 07    | 13    | 22    | 09    | 09    | 12    | 07     |        |  |
| DATE OF OCCURRENCE       | 07                          | 18    | 29    | 26    | 26    | 30    | 20    | 18    | 13    | 20    | 08    | 24    | JUL 20 |        |  |
| PRECIPITATION            | WATER EQUIVALENT:           |       |       |       |       |       |       |       |       |       |       |       |        |        |  |
|                          | TOTAL (IN.)                 | 0.34  | 0.12  | 1.78  | 1.17  | 7.53  | 11.64 | 6.17  | 7.91  | 6.83  | 2.62  | 2.97  | 3.01   | 52.09  |  |
|                          | GREATEST 24-HOUR (IN.)      | 0.26  | 0.11  | 1.41  | 0.82  | 2.31  | 2.01  | 1.29  | 2.02  | 1.59  | 1.61  | 2.37  | 2.15   | 2.37   |  |
|                          | DATE OF OCCURRENCE          | 30    | 02    | 18    | 20-21 | 18-19 | 30    | 20    | 15    | 04-05 | 01-02 | 25    | 17-18  | NOV 25 |  |
|                          | NUMBER OF DAYS WITH:        |       |       |       |       |       |       |       |       |       |       |       |        |        |  |
|                          | PRECIPITATION 0.01          | 4     | 2     | 8     | 7     | 17    | 19    | 14    | 20    | 19    | 10    | 6     | 7      | 133    |  |
| PRECIPITATION 0.10       | 1                           | 1     | 2     | 3     | 10    | 12    | 8     | 13    | 14    | 5     | 2     | 5     | 76     |        |  |
| PRECIPITATION 1.00       | 0                           | 0     | 1     | 0     | 3     | 6     | 1     | 2     | 2     | 1     | 1     | 1     | 18     |        |  |
| SNOWFALL                 | SNOW,ICE PELLETS,HAIL       |       |       |       |       |       |       |       |       |       |       |       |        |        |  |
|                          | TOTAL (IN.)                 |       |       |       |       |       |       |       |       |       |       |       |        |        |  |
|                          | GREATEST 24-HOUR (IN.)      |       |       |       |       |       |       |       |       |       |       |       |        |        |  |
|                          | DATE OF OCCURRENCE          |       |       |       |       |       |       |       |       |       |       |       |        |        |  |
|                          | NUMBER OF DAYS WITH:        |       |       |       |       |       |       |       |       |       |       |       |        |        |  |
| SNOWFALL >= 1.0          |                             |       |       |       |       |       |       |       |       |       |       |       |        |        |  |

# NORMALS, MEANS, AND EXTREMES

## MIAMI (KMIA)

LATITUDE:  
25 ° 49'N

LONGITUDE:  
-80 ° 17'W

ELEVATION (FT):  
GRND: 6 BARO: 29

TIME ZONE:  
EASTERN (UTC -5)

WBAN: 12839

| ELEMENT                                  |   | POR  | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC      | YEAR     |
|--|---|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----------|
| TEMPERATURE °F                           | NORMAL DAILY MAXIMUM                                | 30   | 76.5  | 77.7  | 80.7  | 83.8  | 87.2  | 89.5  | 90.9  | 90.6  | 89.0  | 85.4  | 81.2  | 77.5     | 84.2     |
|  | MEAN DAILY MAXIMUM                                  | 62   | 75.7  | 77.1  | 79.8  | 82.7  | 85.9  | 88.2  | 89.6  | 89.9  | 88.4  | 85.0  | 80.6  | 77.0     | 83.3     |
|  | HIGHEST DAILY MAXIMUM                               | 67   | 88    | 89    | 93    | 96    | 96    | 98    | 98    | 98    | 97    | 95    | 91    | 89       | 98       |
|  | YEAR OF OCCURRENCE                                  |      | 1987  | 2008  | 2003  | 1971  | 2008  | 2009  | 1998  | 1990  | 1987  | 1980  | 2002  | 2009     | JUN 2009 |
|  | MEAN OF EXTREME MAXS.                               | 62   | 83.5  | 85.3  | 87.7  | 90.0  | 91.4  | 92.9  | 93.4  | 93.8  | 92.3  | 89.9  | 86.1  | 83.8     | 89.2     |
|  | NORMAL DAILY MINIMUM                                | 30   | 59.6  | 60.5  | 64.0  | 67.6  | 72.0  | 75.2  | 76.5  | 76.5  | 75.7  | 72.2  | 67.5  | 62.2     | 69.1     |
|  | MEAN DAILY MINIMUM                                  | 62   | 59.7  | 61.0  | 64.5  | 68.0  | 72.1  | 75.0  | 76.5  | 76.7  | 75.9  | 72.4  | 66.7  | 62.0     | 69.2     |
|  | LOWEST DAILY MINIMUM                                | 67   | 30    | 32    | 32    | 46    | 53    | 60    | 69    | 68    | 68    | 51    | 39    | 30       | 30       |
|  | YEAR OF OCCURRENCE                                  |      | 1985  | 1947  | 1980  | 1971  | 1945  | 1984  | 2002  | 1950  | 1983  | 1943  | 1950  | 1989     | DEC 1989 |
|  | MEAN OF EXTREME MINS.                               | 62   | 42.4  | 45.6  | 49.2  | 56.7  | 64.2  | 70.0  | 72.1  | 72.3  | 71.9  | 63.0  | 52.5  | 45.5     | 58.8     |
|  | NORMAL DRY BULB                                     | 30   | 68.1  | 69.1  | 72.4  | 75.7  | 79.6  | 82.4  | 83.7  | 83.6  | 82.4  | 78.8  | 74.4  | 69.9     | 76.7     |
|  | MEAN DRY BULB                                       | 62   | 67.7  | 69.1  | 72.2  | 75.4  | 79.0  | 81.6  | 83.1  | 83.3  | 82.2  | 78.7  | 73.6  | 69.5     | 76.3     |
|  | MEAN WET BULB                                       | 26   | 61.7  | 63.0  | 64.6  | 66.6  | 71.0  | 74.9  | 76.0  | 76.3  | 75.7  | 72.3  | 67.7  | 64.1     | 69.5     |
|  | MEAN DEW POINT                                      | 26   | 59.1  | 60.3  | 61.8  | 63.6  | 68.5  | 73.1  | 74.0  | 74.5  | 74.1  | 70.3  | 65.6  | 61.5     | 67.2     |
|  | NORMAL NO. DAYS WITH:<br>MAXIMUM >= 90              | 30   | 0.0   | 0.0   | 0.3   | 1.7   | 4.8   | 10.8  | 18.0  | 16.9  | 10.8  | 2.6   | 0.0   | 0.0      | 65.9     |
|  | MAXIMUM <= 32                                       | 30   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0      | 0.0      |
| MINIMUM <= 32                            | 30  | 0.1  | 0.0   | *     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1   | 0.2      |          |
| MINIMUM <= 0                             | 30  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0      |          |
| H/C                                      | NORMAL HEATING DEG. DAYS                            | 30   | 52    | 39    | 15    | 1     | 0     | 0     | 0     | 0     | 0     | 0     | 4     | 38       | 149      |
|  | NORMAL COOLING DEG. DAYS                            | 30   | 133   | 154   | 236   | 315   | 442   | 510   | 568   | 568   | 517   | 433   | 291   | 194      | 4361     |
| RH                                       | NORMAL (PERCENT)                                    | 30   | 73    | 71    | 70    | 67    | 71    | 76    | 74    | 76    | 78    | 75    | 74    | 73       | 73       |
|  | HOURLY 01 LST                                       | 30   | 81    | 80    | 78    | 76    | 79    | 83    | 82    | 83    | 84    | 82    | 81    | 80       | 81       |
|  | HOURLY 07 LST                                       | 30   | 85    | 84    | 82    | 79    | 80    | 83    | 83    | 85    | 87    | 85    | 84    | 84       | 83       |
|  | HOURLY 13 LST                                       | 30   | 59    | 57    | 56    | 54    | 58    | 65    | 63    | 65    | 66    | 63    | 63    | 60       | 61       |
|  | HOURLY 19 LST                                       | 30   | 70    | 68    | 66    | 64    | 69    | 74    | 72    | 75    | 77    | 73    | 72    | 71       | 71       |
| S  | PERCENT POSSIBLE SUNSHINE                           | 20   | 66    | 68    | 74    | 76    | 72    | 68    | 72    | 71    | 70    | 70    | 67    | 63       | 70       |
| W/O                                      | MEAN NO. DAYS WITH:<br>HEAVY FOG (VISIBY <= 1/4 MI) | 46   | 0.9   | 0.6   | 0.5   | 0.3   | 0.2   | 0.2   | 0.1   | 0.2   | 0.2   | 0.3   | 0.5   | 0.7      | 4.7      |
|  | THUNDERSTORMS                                       | 62   | 0.8   | 1.1   | 1.8   | 2.8   | 6.4   | 12.5  | 14.6  | 15.4  | 11.4  | 4.2   | 1.0   | 0.6      | 72.6     |
| CLOUDNESS                                | MEAN:<br>SUNRISE-SUNSET (OKTAS)                     | 48   | 4.3   | 4.2   | 4.3   | 4.2   | 4.6   | 5.4   | 5.1   | 5.1   | 5.3   | 4.6   | 4.3   | 4.2      | 4.6      |
|  | MIDNIGHT-MIDNIGHT (OKTAS)                           | 32   | 3.8   | 3.8   | 3.8   | 3.5   | 4.1   | 4.9   | 4.4   | 4.4   | 4.7   | 4.0   | 3.8   | 3.6      | 4.1      |
|  | MEAN NO. DAYS WITH:<br>CLEAR                        | 47   | 9.2   | 8.6   | 8.5   | 8.4   | 6.3   | 3.1   | 2.6   | 2.5   | 2.1   | 6.6   | 7.5   | 8.9      | 74.3     |
|  | PARTLY CLOUDY                                       | 47   | 13.1  | 12.1  | 14.1  | 14.9  | 15.3  | 14.3  | 17.4  | 17.8  | 15.5  | 14.3  | 14.0  | 12.9     | 175.7    |
|  | CLOUDY  | 47   | 8.7   | 7.6   | 8.3   | 6.7   | 9.3   | 12.6  | 11.0  | 10.7  | 12.4  | 10.1  | 8.5   | 9.1      | 115.0    |
| PR                                       | MEAN STATION PRESSURE (IN)                          | 26   | 30.10 | 30.08 | 30.04 | 30.00 | 29.98 | 29.99 | 30.03 | 29.99 | 29.94 | 29.96 | 30.02 | 30.08    | 30.02    |
|  | MEAN SEA-LEVEL PRES. (IN)                           | 26   | 30.12 | 30.10 | 30.06 | 30.03 | 30.00 | 30.01 | 30.06 | 30.01 | 29.96 | 29.98 | 30.04 | 30.10    | 30.04    |
| WINDS                                    | MEAN SPEED (MPH)                                    | 26   | 8.9   | 9.2   | 10.1  | 9.9   | 9.1   | 7.8   | 7.5   | 7.4   | 7.7   | 8.8   | 9.2   | 8.6      | 8.7      |
|  | PREVAIL. DIR. (TENS OF DEGS)                        | 41   | 35    | 12    | 09    | 11    | 10    | 12    | 12    | 11    | 11    | 06    | 10    | 35       | 12       |
|  | MAXIMUM 2-MINUTE:<br>SPEED (MPH)                    | 13   | 32    | 55    | 43    | 37    | 43    | 41    | 41    | 60    | 43    | 69    | 36    | 29       | 69       |
|  | DIR. (TENS OF DEGS)                                 |      | 33    | 19    | 26    | 16    | 10    | 14    | 10    | 13    | 10    | 15    | 18    | 22       | 15       |
|  | YEAR OF OCCURRENCE                                  |      | 2009  | 1998  | 2003  | 2008  | 1999  | 2007  | 2005  | 2005  | 1998  | 2005  | 1998  | 1997     | OCT 2005 |
|  | MAXIMUM 3-SECOND<br>SPEED (MPH)                     | 13   | 40    | 104   | 51    | 52    | 63    | 53    | 56    | 78    | 51    | 92    | 44    | 40       | 104      |
|  | DIR. (TENS OF DEGS)                                 |      | 26    | 19    | 26    | 15    | 33    | 14    | 07    | 12    | 28    | 15    | 31    | 23       | 19       |
| YEAR OF OCCURRENCE                       |   | 2004 | 1998  | 2003  | 2008  | 1998  | 2007  | 2009  | 2005  | 2004  | 2005  | 1998  | 1997  | FEB 1998 |          |
| PRECIPITATION                            | NORMAL (IN)   | 30   | 1.88  | 2.07  | 2.56  | 3.36  | 5.52  | 8.54  | 5.79  | 8.63  | 8.38  | 6.19  | 3.43  | 2.18     | 58.53    |
|  | MAXIMUM MONTHLY (IN)                                | 67   | 6.66  | 8.07  | 10.57 | 17.29 | 18.54 | 22.36 | 13.51 | 16.88 | 24.40 | 21.64 | 13.84 | 6.39     | 24.40    |
|  | YEAR OF OCCURRENCE                                  |      | 1969  | 1983  | 1986  | 1979  | 1968  | 1968  | 1947  | 1943  | 1960  | 1991  | 1992  | 1958     | SEP 1960 |
|  | MINIMUM MONTHLY (IN)                                | 67   | 0.04  | 0.01  | 0.02  | 0.05  | 0.44  | 1.81  | 1.77  | 1.65  | 2.63  | 0.72  | 0.09  | 0.12     | 0.01     |
|  | YEAR OF OCCURRENCE                                  |      | 1951  | 1944  | 1956  | 1981  | 1965  | 1945  | 1963  | 1954  | 1951  | 2002  | 1970  | 1988     | FEB 1944 |
|  | MAXIMUM IN 24 HOURS (IN)                            | 67   | 2.68  | 5.73  | 7.07  | 16.21 | 11.59 | 8.20  | 4.67  | 6.92  | 7.58  | 12.66 | 8.01  | 5.26     | 16.21    |
|  | YEAR OF OCCURRENCE                                  |      | 1973  | 1966  | 1949  | 1979  | 1977  | 1977  | 2003  | 1964  | 1960  | 2000  | 1992  | 2000     | APR 1979 |
|  | NORMAL NO. DAYS WITH:<br>PRECIPITATION >= 0.01      | 30   | 7.5   | 6.8   | 6.2   | 6.1   | 10.3  | 15.6  | 16.0  | 18.9  | 17.4  | 13.4  | 9.0   | 7.3      | 134.5    |
| PRECIPITATION >= 1.00                    | 30  | 0.4  | 0.5   | 0.8   | 0.9   | 1.4   | 2.7   | 1.6   | 2.5   | 2.7   | 1.7   | 0.9   | 0.5   | 16.6     |          |
| SNOWFALL                                 | NORMAL (IN)   | 30   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0      | 0.0      |
|  | MAXIMUM MONTHLY (IN)                                | 5    | 0.0   | 0.0   | 0.0   | 0.0   | T     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0      | T        |
|  | YEAR OF OCCURRENCE                                  |      |       |       |       |       | 1998  |       |       |       |       |       |       |          | MAY 1998 |
|  | MAXIMUM IN 24 HOURS (IN)                            | 59   | 0.0   | 0.0   | 0.0   | 0.0   | T     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0      | T        |
|  | YEAR OF OCCURRENCE                                  |      |       |       |       |       | 1998  |       |       |       |       |       |       |          | MAY 1998 |
|  | MAXIMUM SNOW DEPTH (IN)                             | 53   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0        | 0        |
| YEAR OF OCCURRENCE                       |   |      |       |       |       |       |       |       |       |       |       |       |       |          |          |
| NORMAL NO. DAYS WITH:<br>SNOWFALL >= 1.0 | 30  | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0      |          |

**PRECIPITATION (inches) 2009 MIAMI (KMIA)**

| YEAR           | JAN  | FEB  | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC  | ANNUAL |
|----------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|--------|
| 1980           | 1.89 | 0.88 | 3.17  | 10.20 | 2.14  | 3.02  | 9.40  | 11.32 | 5.60  | 6.05  | 3.47  | 0.20 | 57.34  |
| 1981           | 0.61 | 4.66 | 1.32  | 0.05  | 4.94  | 5.49  | 2.78  | 12.25 | 14.79 | 1.62  | 2.14  | 0.14 | 50.79  |
| 1982           | 0.44 | 1.22 | 4.22  | 9.27  | 8.80  | 10.82 | 3.84  | 5.79  | 7.62  | 7.12  | 7.09  | 1.18 | 67.41  |
| 1983           | 5.36 | 8.07 | 2.82  | 1.79  | 1.44  | 8.66  | 6.20  | 5.88  | 7.48  | 3.52  | 2.01  | 4.19 | 57.42  |
| 1984           | 0.18 | 0.70 | 6.12  | 4.51  | 10.91 | 7.24  | 7.38  | 5.44  | 10.45 | 2.35  | 4.04  | 0.70 | 60.02  |
| 1985           | 0.35 | 0.06 | 1.35  | 3.27  | 3.19  | 6.33  | 11.23 | 11.88 | 8.59  | 5.17  | 1.37  | 3.47 | 56.26  |
| 1986           | 5.04 | 1.72 | 10.57 | 0.71  | 8.24  | 9.06  | 7.81  | 7.67  | 4.38  | 3.96  | 4.75  | 2.21 | 66.12  |
| 1987           | 0.87 | 2.62 | 3.82  | 0.38  | 4.99  | 5.48  | 5.17  | 3.24  | 10.17 | 4.33  | 4.92  | 4.28 | 50.27  |
| 1988           | 1.88 | 0.61 | 0.39  | 1.82  | 5.28  | 10.36 | 10.90 | 7.89  | 3.09  | 1.49  | 0.76  | 0.12 | 44.59  |
| 1989           | 0.67 | 0.71 | 0.89  | 2.14  | 0.99  | 10.83 | 3.53  | 12.78 | 5.83  | 2.65  | 0.99  | 0.62 | 42.63  |
| 1990           | 0.24 | 1.19 | 2.28  | 6.96  | 7.79  | 6.84  | 4.31  | 11.06 | 3.52  | 4.82  | 1.67  | 1.03 | 51.71  |
| 1991           | 1.59 | 2.04 | 2.32  | 5.16  | 2.50  | 7.51  | 7.29  | 8.84  | 11.17 | 21.64 | 1.18  | 0.18 | 71.42  |
| 1992           | 1.80 | 1.49 | 2.67  | 2.43  | 0.55  | 13.17 | 4.21  | 7.22  | 6.48  | 2.02  | 13.84 | 1.94 | 57.82  |
| 1993           | 5.04 | 2.14 | 5.98  | 3.08  | 4.13  | 3.64  | 7.28  | 5.13  | 12.59 | 7.23  | 6.06  | 0.49 | 62.79  |
| 1994           | 3.59 | 5.66 | 1.94  | 2.14  | 4.72  | 4.97  | 3.03  | 16.64 | 13.50 | 9.50  | 8.92  | 4.95 | 79.56  |
| 1995           | 3.13 | 1.41 | 4.60  | 3.73  | 2.94  | 20.33 | 6.36  | 13.13 | 10.37 | 9.91  | 2.53  | 0.86 | 79.30  |
| 1996           | 2.33 | 0.80 | 1.40  | 3.37  | 8.30  | 11.67 | 5.25  | 5.55  | 7.21  | 10.10 | .69   | 1.04 | 57.71  |
| 1997           | 1.71 | 1.57 | 2.06  | 5.16  | 9.80  | 13.18 | 7.62  | 6.28  | 12.47 | 2.60  | 2.89  | 5.27 | 70.61  |
| 1998           | 1.04 | 6.62 | 5.97  | 0.66  | 3.45  | 6.67  | 5.41  | 11.66 | 14.41 | 5.70  | 6.66  | 1.98 | 70.23  |
| 1999           | 2.98 | 0.27 | 0.25  | 1.46  | 4.89  | 11.08 | 3.60  | 13.87 | 7.01  | 14.55 | 1.45  | 2.68 | 64.09  |
| 2000           | 0.52 | 1.24 | 0.35  | 3.36  | 1.80  | 5.19  | 5.29  | 7.42  | 10.58 | 18.65 | 0.50  | 6.15 | 61.05  |
| 2001           | 0.60 | 0.05 | 4.76  | 1.79  | 6.10  | 8.94  | 6.92  | 7.27  | 17.99 | 13.16 | 1.42  | 3.03 | 72.03  |
| 2002           | 0.22 | 3.58 | 0.89  | 1.32  | 8.23  | 15.41 | 12.76 | 6.55  | 6.48  | 0.72  | 3.74  | 3.39 | 63.29  |
| 2003           | 0.43 | 0.83 | 3.89  | 2.87  | 11.05 | 11.94 | 6.32  | 9.65  | 13.18 | 4.09  | 6.64  | 1.24 | 72.13  |
| 2004           | 2.52 | 3.08 | 1.50  | 4.00  | 2.45  | 6.79  | 6.74  | 10.09 | 10.88 | 5.54  | 0.34  | 0.51 | 54.44  |
| 2005           | 1.92 | 0.62 | 3.97  | 3.27  | 7.47  | 17.60 | 5.00  | 9.27  | 9.91  | 5.48  | 2.70  | 1.00 | 68.21  |
| 2006           | 0.32 | 3.47 | 1.10  | 0.23  | 8.62  | 7.05  | 7.32  | 12.95 | 16.73 | 1.64  | 1.63  | 3.11 | 64.17  |
| 2007           | 0.54 | 2.13 | 2.70  | 5.33  | 5.28  | 15.22 | 9.03  | 4.44  | 8.22  | 9.63  | 0.66  | 0.79 | 63.97  |
| 2008           | 1.25 | 4.11 | 5.24  | 3.78  | 1.71  | 9.63  | 8.93  | 9.99  | 7.87  | 6.51  | 0.97  | 0.28 | 60.27  |
| 2009           | 0.34 | 0.12 | 1.78  | 1.17  | 7.53  | 11.64 | 6.17  | 7.91  | 6.83  | 2.62  | 2.97  | 3.01 | 52.09  |
| POR=<br>62 YRS | 1.85 | 2.06 | 2.45  | 3.19  | 5.95  | 9.30  | 6.22  | 7.98  | 9.00  | 7.03  | 2.93  | 1.96 | 59.92  |

WBAN : 12839

**AVERAGE TEMPERATURE (°F) 2009 MIAMI (KMIA)**

| YEAR           | JAN  | FEB  | MAR  | APR  | MAY  | JUN  | JUL  | AUG  | SEP  | OCT  | NOV  | DEC  | ANNUAL |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| 1980           | 67.5 | 64.0 | 73.2 | 75.4 | 79.0 | 81.4 | 82.6 | 82.8 | 82.1 | 80.1 | 74.3 | 67.3 | 75.8   |
| 1981           | 59.7 | 69.5 | 70.1 | 77.8 | 79.6 | 83.7 | 85.0 | 83.2 | 81.2 | 79.7 | 71.4 | 67.8 | 75.7   |
| 1982           | 67.8 | 74.4 | 74.7 | 77.9 | 77.2 | 82.0 | 84.3 | 84.0 | 82.7 | 77.9 | 75.0 | 72.6 | 77.5   |
| 1983           | 67.2 | 67.5 | 67.6 | 71.9 | 78.2 | 81.8 | 85.0 | 83.3 | 81.6 | 78.3 | 72.5 | 69.8 | 75.4   |
| 1984           | 67.0 | 68.6 | 70.4 | 73.2 | 77.1 | 79.8 | 81.9 | 82.6 | 80.1 | 78.2 | 71.5 | 71.1 | 75.1   |
| 1985           | 62.1 | 68.4 | 72.5 | 74.2 | 79.1 | 82.4 | 81.0 | 82.4 | 80.6 | 80.5 | 75.6 | 66.0 | 75.4   |
| 1986           | 65.2 | 69.4 | 68.6 | 71.7 | 77.5 | 81.3 | 83.1 | 83.5 | 83.3 | 80.3 | 79.3 | 73.6 | 76.4   |
| 1987           | 66.1 | 70.8 | 71.9 | 70.6 | 78.7 | 84.2 | 84.2 | 85.4 | 83.6 | 77.6 | 75.3 | 69.8 | 76.5   |
| 1988           | 67.9 | 67.7 | 70.7 | 76.1 | 77.9 | 82.0 | 83.1 | 83.6 | 84.0 | 79.1 | 76.9 | 70.5 | 76.6   |
| 1989           | 72.7 | 70.8 | 73.6 | 77.1 | 81.0 | 82.7 | 83.3 | 84.3 | 84.0 | 79.0 | 76.2 | 65.0 | 77.5   |
| 1990           | 73.6 | 74.0 | 73.7 | 75.2 | 80.3 | 83.0 | 83.5 | 83.7 | 83.1 | 80.4 | 74.4 | 72.9 | 78.2   |
| 1991           | 72.9 | 69.7 | 73.9 | 78.4 | 81.5 | 82.9 | 83.5 | 84.6 | 82.4 | 78.9 | 73.1 | 72.2 | 77.8   |
| 1992           | 67.4 | 70.5 | 71.9 | 74.0 | 77.8 | 81.5 | 84.9 | 84.4 | 83.2 | 79.5 | 76.8 | 71.6 | 77.0   |
| 1993           | 73.2 | 68.9 | 71.5 | 74.0 | 79.2 | 83.3 | 84.6 | 84.8 | 83.0 | 80.8 | 75.9 | 68.9 | 77.3   |
| 1994           | 69.4 | 73.3 | 74.0 | 78.2 | 81.0 | 83.6 | 83.7 | 82.8 | 81.9 | 80.3 | 77.2 | 72.0 | 78.1   |
| 1995           | 67.3 | 67.9 | 73.5 | 77.5 | 82.1 | 81.8 | 84.5 | 84.2 | 83.6 | 81.5 | 73.8 | 68.2 | 77.2   |
| 1996           | 68.1 | 66.7 | 69.7 | 76.0 | 81.2 | 82.5 | 84.5 | 83.1 | 83.2 | 78.4 | 74.3 | 70.2 | 76.5   |
| 1997           | 68.3 | 74.3 | 76.3 | 75.7 | 80.6 | 82.2 | 84.1 | 84.3 | 81.5 | 78.6 | 74.1 | 68.9 | 77.4   |
| 1998           | 70.1 | 69.2 | 69.5 | 76.0 | 80.7 | 85.4 | 84.8 | 84.9 | 83.2 | 80.8 | 76.3 | 73.4 | 77.9   |
| 1999           | 70.0 | 69.6 | 70.5 | 77.8 | 78.6 | 80.9 | 84.0 | 83.6 | 81.9 | 79.2 | 74.3 | 70.0 | 76.7   |
| 2000           | 68.6 | 69.5 | 75.0 | 75.1 | 80.2 | 82.1 | 83.8 | 83.4 | 83.0 | 78.1 | 73.5 | 68.8 | 76.8   |
| 2001           | 63.2 | 74.2 | 73.5 | 76.0 | 77.7 | 82.6 | 82.6 | 84.4 | 81.6 | 79.1 | 74.2 | 73.3 | 76.9   |
| 2002           | 69.8 | 70.0 | 75.3 | 78.5 | 80.8 | 80.3 | 83.0 | 83.9 | 83.3 | 82.1 | 73.8 | 70.6 | 77.6   |
| 2003           | 63.2 | 73.0 | 78.7 | 75.8 | 81.4 | 82.3 | 84.5 | 83.1 | 82.3 | 80.7 | 76.0 | 67.0 | 77.3   |
| 2004           | 66.8 | 70.8 | 72.8 | 73.9 | 79.6 | 84.0 | 84.4 | 83.8 | 82.6 | 79.2 | 75.1 | 68.7 | 76.8   |
| 2005           | 68.0 | 68.6 | 71.3 | 73.6 | 79.2 | 81.3 | 85.2 | 85.2 | 83.2 | 79.4 | 75.5 | 69.4 | 76.7   |
| 2006           | 69.3 | 67.6 | 72.1 | 77.3 | 79.5 | 82.7 | 83.0 | 83.8 | 82.8 | 80.2 | 73.0 | 74.5 | 77.2   |
| 2007           | 72.5 | 69.3 | 73.9 | 75.1 | 78.6 | 81.4 | 83.9 | 85.0 | 83.2 | 81.5 | 74.9 | 74.9 | 77.9   |
| 2008           | 70.3 | 74.3 | 74.5 | 76.8 | 81.4 | 83.3 | 82.9 | 83.9 | 83.5 | 78.3 | 71.8 | 71.7 | 77.7   |
| 2009           | 67.6 | 68.1 | 72.7 | 77.0 | 80.6 | 83.5 | 85.0 | 85.4 | 83.9 | 82.4 | 75.8 | 73.0 | 77.9   |
| POR=<br>62 YRS | 67.7 | 69.1 | 72.2 | 75.4 | 79.0 | 81.6 | 83.1 | 83.3 | 82.2 | 78.7 | 73.6 | 69.5 | 76.3   |

**HEATING DEGREE DAYS (base 65°F) 2009 MIAMI (KMIA)**

| YEAR    | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | TOTAL |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1980-81 | 0   | 0   | 0   | 0   | 7   | 59  | 168 | 25  | 12  | 0   | 0   | 0   | 271   |
| 1981-82 | 0   | 0   | 0   | 0   | 1   | 80  | 65  | 1   | 3   | 0   | 0   | 0   | 150   |
| 1982-83 | 0   | 0   | 0   | 0   | 0   | 22  | 50  | 25  | 38  | 2   | 0   | 0   | 137   |
| 1983-84 | 0   | 0   | 0   | 0   | 4   | 69  | 54  | 37  | 17  | 0   | 0   | 0   | 181   |
| 1984-85 | 0   | 0   | 0   | 0   | 9   | 18  | 135 | 61  | 4   | 1   | 0   | 0   | 228   |
| 1985-86 | 0   | 0   | 0   | 0   | 2   | 78  | 76  | 22  | 54  | 0   | 0   | 0   | 232   |
| 1986-87 | 0   | 0   | 0   | 0   | 0   | 0   | 83  | 15  | 6   | 27  | 0   | 0   | 131   |
| 1987-88 | 0   | 0   | 0   | 0   | 3   | 29  | 49  | 38  | 26  | 0   | 0   | 0   | 145   |
| 1988-89 | 0   | 0   | 0   | 0   | 0   | 36  | 1   | 49  | 18  | 0   | 0   | 0   | 104   |
| 1989-90 | 0   | 0   | 0   | 1   | 0   | 110 | 7   | 4   | 0   | 0   | 0   | 0   | 122   |
| 1990-91 | 0   | 0   | 0   | 0   | 0   | 4   | 2   | 31  | 5   | 0   | 0   | 0   | 42    |
| 1991-92 | 0   | 0   | 0   | 0   | 7   | 0   | 38  | 7   | 6   | 0   | 0   | 0   | 58    |
| 1992-93 | 0   | 0   | 0   | 0   | 2   | 10  | 5   | 7   | 21  | 0   | 0   | 0   | 45    |
| 1993-94 | 0   | 0   | 0   | 0   | 4   | 31  | 26  | 15  | 1   | 0   | 0   | 0   | 77    |
| 1994-95 | 0   | 0   | 0   | 0   | 0   | 14  | 39  | 51  | 1   | 0   | 0   | 0   | 105   |
| 1995-96 | 0   | 0   | 0   | 0   | 3   | 77  | 65  | 77  | 41  | 0   | 0   | 0   | 263   |
| 1996-97 | 0   | 0   | 0   | 0   | 0   | 26  | 58  | 2   | 0   | 0   | 0   | 0   | 86    |
| 1997-98 | 0   | 0   | 0   | 0   | 2   | 49  | 20  | 29  | 25  | 0   | 0   | 0   | 125   |
| 1998-99 | 0   | 0   | 0   | 0   | 0   | 8   | 35  | 19  | 5   | 0   | 0   | 0   | 67    |
| 1999-00 | 0   | 0   | 0   | 0   | 0   | 26  | 37  | 19  | 0   | 0   | 0   | 0   | 82    |
| 2000-01 | 0   | 0   | 0   | 0   | 4   | 51  | 121 | 0   | 6   | 0   | 0   | 0   | 182   |
| 2001-02 | 0   | 0   | 0   | 0   | 0   | 11  | 53  | 14  | 4   | 0   | 0   | 0   | 82    |
| 2002-03 | 0   | 0   | 0   | 0   | 5   | 21  | 101 | 2   | 5   | 2   | 0   | 0   | 136   |
| 2003-04 | 0   | 0   | 0   | 0   | 0   | 54  | 34  | 24  | 0   | 0   | 0   | 0   | 112   |
| 2004-05 | 0   | 0   | 0   | 0   | 0   | 41  | 44  | 24  | 16  | 0   | 0   | 0   | 125   |
| 2005-06 | 0   | 0   | 0   | 0   | 2   | 18  | 33  | 45  | 7   | 0   | 0   | 0   | 105   |
| 2006-07 | 0   | 0   | 0   | 0   | 22  | 3   | 12  | 38  | 0   | 1   | 0   | 0   | 76    |
| 2007-08 | 0   | 0   | 0   | 0   | 0   | 4   | 27  | 5   | 3   | 1   | 0   | 0   | 40    |
| 2008-09 | 0   | 0   | 0   | 1   | 3   | 6   | 40  | 36  | 14  | 1   | 0   | 0   | 101   |
| 2009-   | 0   | 0   | 0   | 0   | 2   | 16  |     |     |     |     |     |     |       |

WBAN : 12839

**COOLING DEGREE DAYS (base 65°F) 2009 MIAMI (KMIA)**

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1980 | 138 | 75  | 296 | 321 | 441 | 501 | 555 | 563 | 519 | 476 | 292 | 135 | 4312  |
| 1981 | 10  | 154 | 177 | 389 | 460 | 568 | 625 | 570 | 492 | 460 | 198 | 173 | 4276  |
| 1982 | 161 | 270 | 311 | 394 | 385 | 518 | 606 | 596 | 537 | 406 | 304 | 264 | 4752  |
| 1983 | 125 | 101 | 124 | 213 | 417 | 514 | 628 | 576 | 503 | 419 | 236 | 221 | 4077  |
| 1984 | 124 | 144 | 194 | 252 | 380 | 452 | 532 | 554 | 460 | 416 | 213 | 214 | 3935  |
| 1985 | 55  | 164 | 244 | 285 | 445 | 529 | 505 | 546 | 476 | 488 | 329 | 114 | 4180  |
| 1986 | 86  | 150 | 175 | 207 | 395 | 495 | 569 | 582 | 556 | 483 | 432 | 272 | 4402  |
| 1987 | 122 | 186 | 227 | 202 | 430 | 580 | 603 | 639 | 565 | 401 | 314 | 182 | 4451  |
| 1988 | 145 | 123 | 209 | 339 | 408 | 516 | 571 | 584 | 578 | 445 | 364 | 216 | 4498  |
| 1989 | 247 | 219 | 292 | 367 | 502 | 540 | 576 | 603 | 578 | 442 | 346 | 114 | 4826  |
| 1990 | 279 | 262 | 276 | 314 | 479 | 547 | 578 | 587 | 552 | 486 | 287 | 254 | 4901  |
| 1991 | 254 | 167 | 288 | 408 | 515 | 547 | 583 | 614 | 531 | 437 | 255 | 231 | 4830  |
| 1992 | 121 | 173 | 226 | 277 | 404 | 503 | 624 | 609 | 553 | 454 | 366 | 222 | 4532  |
| 1993 | 269 | 123 | 227 | 277 | 449 | 557 | 613 | 622 | 550 | 497 | 338 | 159 | 4681  |
| 1994 | 167 | 252 | 288 | 403 | 503 | 566 | 589 | 557 | 512 | 479 | 374 | 239 | 4929  |
| 1995 | 119 | 138 | 274 | 377 | 537 | 509 | 612 | 602 | 565 | 519 | 272 | 178 | 4702  |
| 1996 | 168 | 134 | 193 | 335 | 512 | 532 | 609 | 566 | 555 | 421 | 284 | 195 | 4504  |
| 1997 | 164 | 270 | 360 | 326 | 489 | 523 | 600 | 607 | 502 | 427 | 282 | 179 | 4729  |
| 1998 | 186 | 152 | 174 | 337 | 493 | 616 | 623 | 621 | 555 | 498 | 348 | 277 | 4880  |
| 1999 | 195 | 152 | 184 | 390 | 429 | 482 | 594 | 583 | 513 | 447 | 285 | 190 | 4444  |
| 2000 | 152 | 154 | 317 | 312 | 480 | 518 | 592 | 579 | 545 | 411 | 267 | 178 | 4505  |
| 2001 | 71  | 266 | 277 | 335 | 400 | 532 | 552 | 605 | 505 | 444 | 283 | 276 | 4546  |
| 2002 | 211 | 160 | 330 | 409 | 497 | 465 | 565 | 591 | 555 | 537 | 275 | 199 | 4794  |
| 2003 | 53  | 233 | 436 | 333 | 516 | 523 | 611 | 569 | 520 | 494 | 338 | 123 | 4749  |
| 2004 | 98  | 197 | 247 | 274 | 464 | 575 | 608 | 589 | 531 | 449 | 311 | 165 | 4508  |
| 2005 | 144 | 131 | 216 | 266 | 446 | 495 | 632 | 635 | 552 | 451 | 323 | 158 | 4449  |
| 2006 | 174 | 125 | 234 | 378 | 457 | 541 | 567 | 591 | 540 | 477 | 269 | 302 | 4655  |
| 2007 | 252 | 162 | 285 | 308 | 430 | 501 | 594 | 626 | 550 | 518 | 302 | 318 | 4846  |
| 2008 | 200 | 283 | 303 | 362 | 514 | 555 | 561 | 591 | 562 | 418 | 213 | 221 | 4783  |
| 2009 | 128 | 128 | 259 | 368 | 489 | 563 | 626 | 638 | 574 | 543 | 331 | 270 | 4917  |

**SNOWFALL (inches) 2009 MIAMI (KMIA)**

| YEAR           | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | TOTAL |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1976-77        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1977-78        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1978-79        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1979-80        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1980-81        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1981-82        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1982-83        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1983-84        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1984-85        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1985-86        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1986-87        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1987-88        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1988-89        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1989-90        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1990-91        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1991-92        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1992-93        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1993-94        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1994-95        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1995-96        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1996-97        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   |
| 1997-98        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | T     |
| 1998-99        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | T     |
| 1999-00        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | T     |
| 2000-01        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |     |     |       |
| 2001-02        |     |     |     |     |     |     |     |     |     |     |     |     |       |
| 2002-03        |     |     |     |     |     |     |     |     |     |     |     |     |       |
| 2003-04        |     |     |     |     |     |     |     |     |     |     |     |     |       |
| 2004-05        |     |     |     |     |     |     |     |     |     |     |     |     |       |
| 2005-          |     |     |     |     |     |     |     |     |     |     |     |     |       |
| POR=<br>53 YRS | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | T     |

WBAN : 12839

**REFERENCE NOTES :**

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| <p>PAGE 1:<br/>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:<br/>H/C INDICATES HEATING AND COOLING DEGREE DAYS.<br/>RH INDICATES RELATIVE HUMIDITY<br/>W/O INDICATES WEATHER AND OBSTRUCTIONS<br/>S INDICATES SUNSHINE.<br/>PR INDICATES PRESSURE.<br/>CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL:<br/>T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE.<br/>+ INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES.<br/>BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.<br/>NORMALS ARE 30-YEAR AVERAGES (1971 - 2000).<br/>ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM.<br/>PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH.<br/>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.<br/>WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED.<br/>0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05.<br/>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.<br/>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.<br/>CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.<br/>WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED.</p> | <p>GENERAL CONTINUED:<br/>WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH.<br/>RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION.<br/>AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2.<br/>SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL.<br/>A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65 F.<br/>DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR.<br/>DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY.<br/>WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.<br/>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.<br/>STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED HISTORY GO TO "MULTI-NETWORK METADATA SYSTEM", URL IS: <a href="https://mi3.ncdc.noaa.gov/mi3qry/login.cfm">https://mi3.ncdc.noaa.gov/mi3qry/login.cfm</a></p> <p><b>NOTE:</b><br/>The "Period of Record:(POR) for all "averages" is based on the "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p> |
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# 2009 MIAMI FLORIDA (KMIA)

Miami is located on the lower east coast of Florida. To the east of the city lies Biscayne Bay, an arm of the ocean, about 15 miles long and 3 miles wide. East of the bay is the island of Miami Beach, a mile or less wide and about 10 miles long, and beyond Miami Beach is the Atlantic Ocean. The surrounding countryside is level and sparsely wooded.

The climate of Miami is essentially subtropical marine, featured by a long and warm summer, with abundant rainfall, followed by a mild, dry winter. The marine influence is evidenced by the low daily range of temperature and the rapid warming of cold air masses which pass to the east of the state. The Miami area is subject to winds from the east or southeast about half the time, and in several specific respects has a climate whose features differ from those farther inland.

One of these features is the annual precipitation for the area. During the early morning hours more rainfall occurs at Miami Beach than at the airport, while during the afternoon the reverse is true. The airport office is about 9 miles inland.

An even more striking difference appears in the annual number of days with temperatures reaching 90 degrees or higher, with inland stations having about four times more than the beach. Minimum temperature contrasts also are particularly marked under proper conditions, with the difference between inland locations and the Miami Beach station frequently reaching to 15 degrees or more, especially in winter.

Freezing temperatures occur occasionally in the suburbs and farming districts southwest, west, and northwest of the city, but rarely near the ocean.

Hurricanes occasionally affect the area. The months of greatest frequency are September and October. Destructive tornadoes are very rare. Funnel clouds are occasionally sighted and a few touch the ground briefly but significant damage is seldom reported. Waterspouts are often visible from the beaches during the summer months, however, significant damage is seldom reported. June, July, and August have the highest frequency of dangerous lightning events.

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