

2003

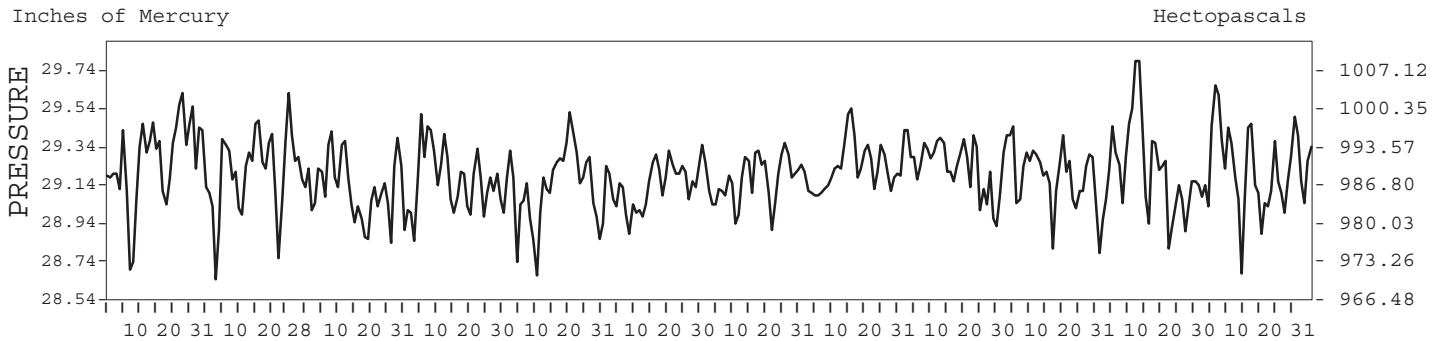
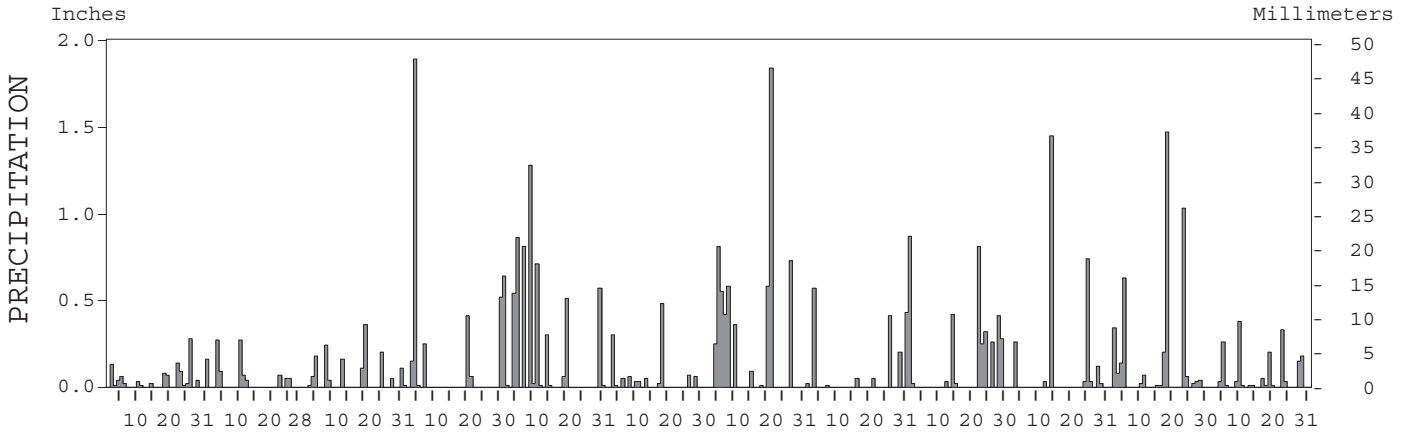
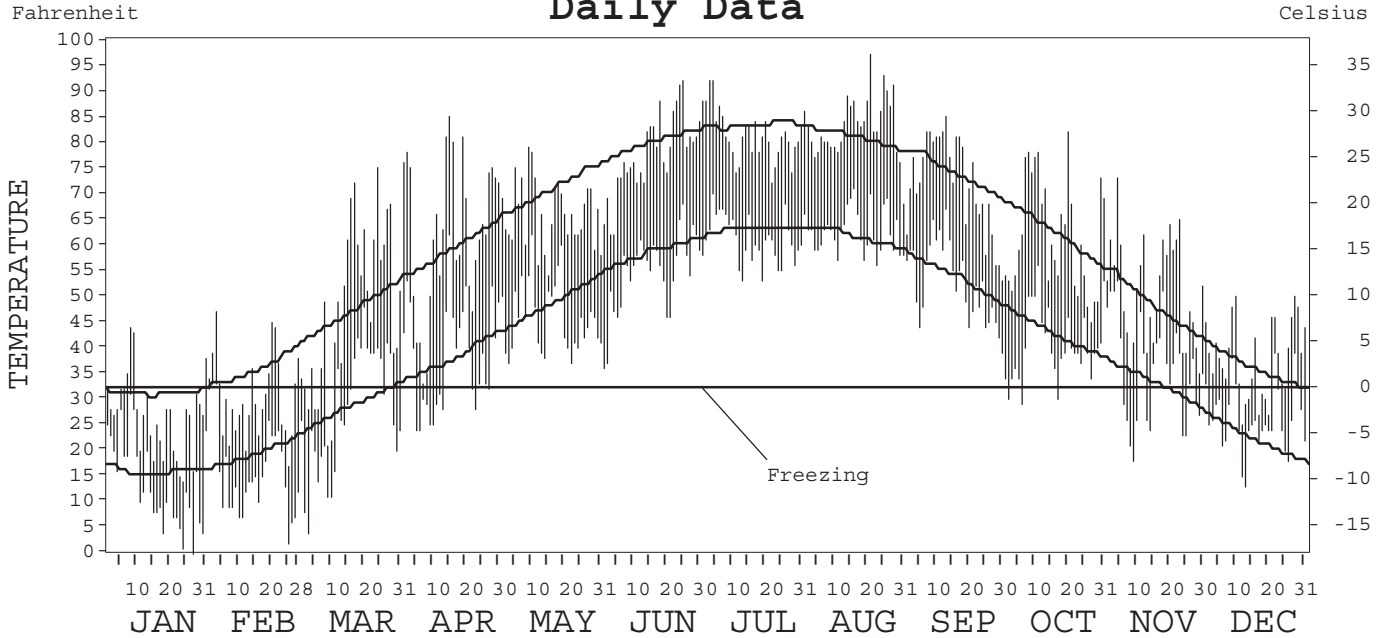
# LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-201X

## SOUTH BEND, INDIANA (SBN)

### Daily Data



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# METEOROLOGICAL DATA FOR 2003

## SOUTH BEND, IN (SBN)

LATITUDE: 41° 42' 26" N      LONGITUDE: 86° 19' 59" W      ELEVATION (FT): GRND: 777      BARO: 780      TIME ZONE: EASTERN (UTC + 5)      WBAN: 14848

| ELEMENT              |                               | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC   | YEAR      |   |
|----------------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|---|
| TEMPERATURE °F       | MEAN DAILY MAXIMUM            | 26.8  | 30.4  | 47.9  | 62.4  | 66.0  | 77.6  | 81.3  | 83.2  | 71.9  | 61.6  | 51.0  | 38.0  | 58.2      |   |
|                      | HIGHEST DAILY MAXIMUM         | 44    | 47    | 75    | 85    | 79    | 92    | 92    | 97    | 85    | 82    | 73    | 50    | 97        |   |
|                      | DATE OF OCCURRENCE            | 08    | 03    | 24    | 15    | 09    | 25    | 04+   | 21    | 13    | 20    | 04    | 28+   | AUG 21    |   |
|                      | MEAN DAILY MINIMUM            | 13.8  | 15.8  | 27.9  | 38.3  | 45.9  | 54.6  | 60.9  | 62.6  | 52.8  | 40.5  | 35.6  | 26.2  | 39.6      |   |
|                      | LOWEST DAILY MINIMUM          | 0     | 2     | 4     | 24    | 37    | 36    | 53    | 56    | 39    | 29    | 18    | 13    | 0         |   |
|                      | DATE OF OCCURRENCE            | 27    | 25    | 03    | 06+   | 22+   | 01    | 19+   | 23    | 30    | 06    | 09    | 13    | JAN 27    |   |
|                      | AVERAGE DRY BULB              | 20.3  | 23.1  | 37.9  | 50.4  | 56.0  | 66.1  | 71.1  | 72.9  | 62.4  | 51.1  | 43.3  | 32.1  | 48.9      |   |
|                      | MEAN WET BULB                 | 19.4  | 21.3  | 34.3  | 43.3  | 52.1  | 59.5  |       | 66.7  | 56.9  | 46.7  | 40.8  | 29.8  |           |   |
|                      | MEAN DEW POINT                | 14.6  | 15.3  | 28.7  | 35.6  | 48.4  | 54.3  |       | 63.1  | 52.6  | 41.9  | 36.5  | 25.2  |           |   |
|                      | NUMBER OF DAYS WITH:          |       |       |       |       |       |       |       |       |       |       |       |       |           |   |
|                      | MAXIMUM ≥ 90°                 | 0     | 0     | 0     | 0     | 0     | 2     | 2     | 4     | 0     | 0     | 0     | 0     | 0         | 8 |
|                      | MAXIMUM ≤ 32°                 | 27    | 17    | 6     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 8     | 58        |   |
|                      | MINIMUM ≤ 32°                 | 31    | 26    | 19    | 12    | 0     | 0     | 0     | 0     | 0     | 3     | 11    | 25    | 127       |   |
|                      | MINIMUM ≤ 0°                  | 1     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 1         |   |
| H/C                  | HEATING DEGREE DAYS           | 1376  | 1167  | 832   | 441   | 279   | 62    | 0     | 2     | 136   | 427   | 643   | 1012  | 6377      |   |
|                      | COOLING DEGREE DAYS           | 0     | 0     | 0     | 10    | 7     | 103   | 197   | 255   | 63    | 2     | 0     | 0     | 637       |   |
| RH                   | MEAN (PERCENT)                | 76    | 72    | 71    | 62    | 77    | 68    | 73    | 74    | 73    | 73    | 77    | 76    | 73        |   |
|                      | HOUR 01 LST                   | 79    | 75    | 77    | 71    | 89    | 79    | 86    | 87    | 83    | 81    | 83    | 79    | 81        |   |
|                      | HOUR 07 LST                   | 78    | 80    | 83    | 74    | 86    | 82    | 85    | 89    | 90    | 87    | 84    | 80    | 83        |   |
|                      | HOUR 13 LST                   | 70    | 65    | 59    | 51    | 67    | 52    | 59    | 59    | 57    | 59    | 69    | 72    | 62        |   |
|                      | HOUR 19 LST                   | 76    | 67    | 64    | 53    | 69    | 58    | 62    | 65    | 66    | 69    | 74    | 74    | 66        |   |
| S                    | PERCENT POSSIBLE SUNSHINE     |       |       |       |       |       |       |       |       |       |       |       |       |           |   |
| W/O                  | NUMBER OF DAYS WITH:          |       |       |       |       |       |       |       |       |       |       |       |       |           |   |
|                      | HEAVY FOG (VISBY ≤ 1/4 MI)    | 2     | 2     | 4     | 0     | 0     | 0     | 0     | 3     | 1     | 0     | 2     | 1     | 15        |   |
|                      | THUNDERSTORMS                 | 0     | 0     | 4     | 4     | 9     | 4     | 9     | 4     | 4     | 1     | 2     | 0     | 41        |   |
| 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.)     | 29.26 | 29.21 | 29.12 | 29.16 | 29.12 | 29.14 | 29.16 | 29.23 | 29.23 | 29.17 | 29.21 | 29.22 | 29.19     |   |
|                      | MEAN SEA-LEVEL PRESS. (IN.)   |       | 30.07 | 29.97 | 29.99 | 29.94 | 29.95 | 29.97 | 30.05 | 30.05 | 30.00 | 30.05 | 30.07 |           |   |
| WINDS                | RESULTANT SPEED (MPH)         | 5.2   | 3.3   | 1.7   | 0.7   | 1.3   | 1.9   | 3.3   | 0.9   | 2.1   | 3.1   | 4.3   | 3.6   | 2.2       |   |
|                      | RES. DIR. (TENS OF DEGS.)     | 26    | 27    | 23    | 14    | 35    | 26    | 27    | 30    | 20    | 24    | 23    | 23    | 25        |   |
|                      | MEAN SPEED (MPH)              | 10.5  | 10.4  | 9.7   | 10.5  | 9.3   | 7.1   | 7.3   | 6.8   | 7.8   | 7.5   | 10.4  | 10.8  | 9.0       |   |
|                      | PREVAIL. DIR. (TENS OF DEGS.) | 22    | 21    | 21    | 08    | 33    | 19    | 22    | 36    | 10    | 21    | 22    | 23    | 21        |   |
|                      | MAXIMUM 2-MINUTE WIND:        |       |       |       |       |       |       |       |       |       |       |       |       |           |   |
|                      | SPEED (MPH)                   | 26    | 43    | 35    | 36    | 38    | 32    | 40    | 37    | 28    | 32    | 39    | 29    | 43        |   |
|                      | DIR. (TENS OF DEGS.)          | 22    | 31    | 20    | 24    | 25    | 24    | 26    | 28    | 29    | 28    | 31    | 29    | 31        |   |
|                      | DATE OF OCCURRENCE            | 19+   | 11    | 28    | 20    | 11    | 08    | 08+   | 26    | 23    | 12    | 12    | 01    | FEB 11    |   |
|                      | MAXIMUM 5-SECOND WIND:        |       |       |       |       |       |       |       |       |       |       |       |       |           |   |
|                      | SPEED (MPH)                   | 33    | 53    | 46    | 43    | 45    | 39    | 55    | 44    | 33    | 40    | 51    | 35    | 55        |   |
| DIR. (TENS OF DEGS.) | 32                            | 32    | 19    | 25    | 23    | 24    | 27    | 29    | 29    | 31    | 29    | 23    | 27    |           |   |
|                      | DATE OF OCCURRENCE            | 13+   | 11    | 28    | 20    | 11    | 08    | 08    | 26    | 23    | 14    | 12    | 16+   | JUL 08    |   |
| PRECIPITATION        | WATER EQUIVALENT:             |       |       |       |       |       |       |       |       |       |       |       |       |           |   |
|                      | TOTAL (IN.)                   | 1.21  | 0.91  | 1.52  | 3.30  | 6.34  | 1.16  | 6.22  | 1.74  | 3.69  | 2.68  | 4.15  | 1.70  | 34.62     |   |
|                      | GREATEST 24-HOUR (IN.)        | 0.28  | 0.28  | 0.46  | 2.04  | 1.40  | 0.48  | 2.42  | 0.57  | 1.19  | 1.45  | 1.66  | 0.39  | 2.42      |   |
|                      | DATE OF OCCURRENCE            | 26    | 03-04 | 19-20 | 03-04 | 04-05 | 18    | 20-21 | 03    | 31-01 | 14    | 17-18 | 10-11 | JUL 20-21 |   |
|                      | NUMBER OF DAYS WITH:          |       |       |       |       |       |       |       |       |       |       |       |       |           |   |
|                      | PRECIPITATION ≥ 0.01          | 17    | 8     | 11    | 8     | 15    | 11    | 11    | 8     | 11    | 8     | 15    | 16    | 139       |   |
| PRECIPITATION ≥ 0.10 | 4                             | 2     | 7     | 5     | 9     | 2     | 9     | 4     | 8     | 4     | 6     | 6     | 66    |           |   |
|                      | PRECIPITATION ≥ 1.00          | 0     | 0     | 0     | 1     | 1     | 0     | 1     | 0     | 0     | 1     | 0     | 0     | 6         |   |
| SNOWFALL             | SNOW, ICE PELLETS, HAIL:      |       |       |       |       |       |       |       |       |       |       |       |       |           |   |
|                      | TOTAL (IN.)                   | 27.2  | 14.5  | 3.8   | 1.0   | 0.0   | 0.0   | T     | 0.0   | 0.0   | 0.0   | 0.2   | 10.5  | 57.2      |   |
|                      | GREATEST 24-HOUR (IN.)        | 5.4   | 4.2   | 1.8   | 1.0   | 0.0   | 0.0   | T     | 0.0   | 0.0   | 0.0   | 0.2   | 4.0   | 5.4       |   |
|                      | DATE OF OCCURRENCE            | 26    | 10    | 05    | 07    |       |       | 06    |       |       |       | 28    | 19    | JAN 26    |   |
|                      | MAXIMUM SNOW DEPTH (IN.)      | 4     | 3     | 2     | 1     | 0     | 0     | 0     | 0     | 0     | 0     | T     | 4     | 4         |   |
|                      | DATE OF OCCURRENCE            | 24+   | 12    | 06+   | 07    |       |       |       |       |       |       | 29    | 19    | DEC 19    |   |
|                      | NUMBER OF DAYS WITH:          |       |       |       |       |       |       |       |       |       |       |       |       |           |   |
| SNOWFALL ≥ 1.0       | 8                             | 7     | 1     | 1     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 4     | 21    |           |   |

# NORMALS, MEANS, AND EXTREMES

## SOUTH BEND, IN (SBN)

LATITUDE: 41° 42' 26" N      LONGITUDE: 86° 19' 59" W      ELEVATION (FT): GRND: 777      BARO: 780      TIME ZONE: EASTERN (UTC + 5)      WBAN: 14848

| ELEMENT               |                             | POR  | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC      | YEAR     |
|-----------------------|-----------------------------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----------|
| TEMPERATURE °F        | NORMAL DAILY MAXIMUM        | 30   | 31.0  | 35.5  | 46.8  | 58.9  | 70.7  | 79.6  | 83.1  | 80.7  | 73.6  | 61.8  | 47.7  | 35.6     | 58.7     |
|                       | MEAN DAILY MAXIMUM          | 56   | 31.1  | 35.0  | 45.2  | 58.7  | 70.0  | 79.6  | 83.0  | 81.2  | 74.5  | 62.8  | 48.0  | 35.8     | 58.7     |
|                       | HIGHEST DAILY MAXIMUM       | 64   | 68    | 74    | 85    | 91    | 95    | 104   | 102   | 103   | 99    | 92    | 82    | 70       | 104      |
|                       | YEAR OF OCCURRENCE          |      | 1950  | 2000  | 1981  | 1942  | 1942  | 1988  | 1999  | 1988  | 1953  | 1963  | 1950  | 2001     | JUN 1988 |
|                       | MEAN OF EXTREME MAXS.       | 56   | 51.0  | 54.3  | 70.4  | 79.5  | 86.3  | 92.5  | 93.8  | 92.1  | 89.0  | 80.6  | 68.5  | 55.9     | 76.2     |
|                       | NORMAL DAILY MINIMUM        | 30   | 15.7  | 19.0  | 28.2  | 37.7  | 48.4  | 58.3  | 62.8  | 61.3  | 53.3  | 42.3  | 32.6  | 21.7     | 40.1     |
|                       | MEAN DAILY MINIMUM          | 56   | 16.7  | 19.6  | 27.9  | 38.4  | 48.3  | 58.3  | 62.9  | 61.2  | 53.6  | 43.2  | 33.0  | 22.4     | 40.5     |
|                       | LOWEST DAILY MINIMUM        | 64   | -22   | -17   | -13   | 11    | 24    | 35    | 42    | 40    | 29    | 20    | -7    | -16      | -22      |
|                       | YEAR OF OCCURRENCE          |      | 1943  | 1951  | 1943  | 1972  | 1968  | 1972  | 2001  | 1965  | 1942  | 1988  | 1950  | 1960     | JAN 1943 |
|                       | MEAN OF EXTREME MINS.       | 56   | -5.7  | -1.2  | 9.8   | 22.8  | 33.5  | 43.8  | 50.6  | 49.1  | 38.4  | 29.0  | 17.2  | 1.7      | 24.1     |
|                       | NORMAL DRY BULB             | 30   | 23.4  | 27.3  | 37.5  | 48.3  | 59.6  | 69.0  | 73.0  | 71.0  | 63.4  | 52.1  | 40.1  | 28.7     | 49.4     |
|                       | MEAN DRY BULB               | 56   | 24.0  | 27.3  | 36.5  | 48.5  | 59.2  | 68.9  | 72.9  | 71.1  | 64.1  | 53.0  | 40.5  | 29.2     | 49.6     |
|                       | MEAN WET BULB               | 20   | 23.5  | 26.5  | 33.3  | 43.6  | 53.2  | 62.1  | 66.6  | 65.4  | 58.0  | 47.1  | 37.4  | 27.6     | 45.4     |
|                       | MEAN DEW POINT              | 20   | 19.4  | 21.4  | 27.2  | 36.5  | 47.2  | 57.0  | 62.4  | 62.1  | 53.8  | 42.0  | 32.8  | 23.7     | 40.5     |
|                       | NORMAL NO. DAYS WITH:       |      |       |       |       |       |       |       |       |       |       |       |       |          |          |
| MAXIMUM ≥ 90°         | 30                          | 0.0  | 0.0   | 0.0   | 0.0   | 0.6   | 3.2   | 5.7   | 2.9   | 0.9   | 0.0   | 0.0   | 0.0   | 13.3     |          |
| MAXIMUM ≤ 32°         | 30                          | 16.6 | 11.9  | 3.4   | 0.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 1.8   | 9.8   | 43.6     |          |
| MINIMUM ≤ 32°         | 30                          | 27.9 | 23.8  | 19.7  | 8.2   | 0.4   | 0.0   | 0.0   | 0.0   | *     | 2.9   | 14.6  | 25.3  | 122.8    |          |
| MINIMUM ≤ 0°          | 30                          | 3.7  | 2.4   | 0.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 1.5   | 7.7      |          |
| H/C                   | NORMAL HEATING DEG. DAYS    | 30   | 1274  | 1055  | 844   | 498   | 213   | 41    | 6     | 13    | 117   | 393   | 731   | 1109     | 6294     |
|                       | NORMAL COOLING DEG. DAYS    | 30   | 0     | 0     | 1     | 10    | 53    | 172   | 268   | 214   | 85    | 9     | 0     | 0        | 812      |
| RH                    | NORMAL (PERCENT)            | 30   | 78    | 75    | 70    | 66    | 66    | 68    | 71    | 75    | 74    | 72    | 75    | 79       | 72       |
|                       | HOUR 01 LST                 | 30   | 80    | 79    | 76    | 74    | 76    | 78    | 83    | 86    | 84    | 80    | 79    | 82       | 80       |
|                       | HOUR 07 LST                 | 30   | 82    | 82    | 80    | 79    | 80    | 81    | 84    | 89    | 89    | 85    | 82    | 83       | 83       |
|                       | HOUR 13 LST                 | 30   | 73    | 68    | 60    | 56    | 54    | 55    | 57    | 60    | 59    | 59    | 68    | 75       | 62       |
|                       | HOUR 19 LST                 | 30   | 77    | 73    | 65    | 59    | 57    | 57    | 60    | 66    | 68    | 68    | 74    | 78       | 67       |
| S                     | PERCENT POSSIBLE SUNSHINE   |      |       |       |       |       |       |       |       |       |       |       |       |          |          |
| W/O                   | MEAN NO. DAYS WITH:         |      |       |       |       |       |       |       |       |       |       |       |       |          |          |
|                       | HEAVY FOG (VISBY ≤ 1/4 MI)  | 65   | 2.7   | 2.3   | 2.1   | 1.3   | 1.4   | 1.1   | 1.2   | 2.1   | 1.9   | 2.1   | 1.9   | 3.3      | 23.4     |
|                       | THUNDERSTORMS               | 65   | 0.4   | 0.4   | 2.4   | 4.4   | 5.1   | 7.8   | 7.0   | 6.5   | 4.4   | 1.9   | 1.0   | 0.4      | 41.7     |
| CLOUDINESS            | MEAN:                       |      |       |       |       |       |       |       |       |       |       |       |       |          |          |
|                       | SUNRISE-SUNSET (OKTAS)      | 51   | 6.4   | 6.2   | 6.0   | 5.5   | 5.0   | 4.9   | 4.5   | 4.5   | 4.6   | 4.9   | 6.1   | 6.4      | 5.4      |
|                       | MIDNIGHT-MIDNIGHT (OKTAS)   | 32   | 6.3   | 5.9   | 5.7   | 5.3   | 4.8   | 4.6   | 4.2   | 4.2   | 4.4   | 4.7   | 6.0   | 6.4      | 5.2      |
|                       | MEAN NO. DAYS WITH:         |      |       |       |       |       |       |       |       |       |       |       |       |          |          |
| CLEAR                 | 57                          | 3.4  | 3.7   | 4.7   | 5.8   | 6.9   | 7.2   | 8.2   | 8.6   | 8.8   | 8.7   | 3.6   | 3.0   | 72.6     |          |
| PARTLY CLOUDY         | 57                          | 5.9  | 5.6   | 7.3   | 7.6   | 9.6   | 10.4  | 12.7  | 12.1  | 9.0   | 8.0   | 6.0   | 5.6   | 99.8     |          |
| CLOUDY                | 57                          | 21.7 | 18.9  | 19.1  | 16.6  | 14.5  | 12.4  | 10.1  | 10.3  | 12.2  | 14.4  | 20.4  | 22.5  | 193.1    |          |
| PR                    | MEAN STATION PRESSURE (IN)  | 31   | 29.22 | 29.23 | 29.17 | 29.13 | 29.14 | 29.14 | 29.18 | 29.21 | 29.23 | 29.23 | 29.20 | 29.23    | 29.19    |
|                       | MEAN SEA-LEVEL PRES. (IN)   | 19   | 30.08 | 30.09 | 30.05 | 29.97 | 29.98 | 29.96 | 29.99 | 30.04 | 30.05 | 30.07 | 30.06 | 30.10    | 30.04    |
| WINDS                 | MEAN SPEED (MPH)            | 46   | 11.6  | 11.2  | 11.8  | 11.6  | 10.1  | 9.0   | 8.1   | 7.6   | 8.5   | 9.5   | 11.1  | 11.1     | 10.1     |
|                       | PREVAIL. DIR (TENS OF DEGS) | 29   | 23    | 23    | 22    | 31    | 21    | 21    | 22    | 22    | 23    | 21    | 23    | 23       | 23       |
|                       | MAXIMUM 2-MINUTE:           |      |       |       |       |       |       |       |       |       |       |       |       |          |          |
|                       | SPEED (MPH)                 | 7    | 33    | 45    | 40    | 43    | 44    | 36    | 44    | 39    | 36    | 56    | 41    | 37       | 56       |
|                       | DIR. (TENS OF DEGS)         |      | 21    | 20    | 26    | 24    | 31    | 34    | 32    | 31    | 25    | 25    | 23    | 29       | 25       |
|                       | YEAR OF OCCURRENCE          |      | 1999  | 1999  | 2002  | 1997  | 1997  | 2001  | 1997  | 1997  | 1997  | 2001  | 1998  | 1998     | OCT 2001 |
| MAXIMUM 5-SECOND:     |                             |      |       |       |       |       |       |       |       |       |       |       |       |          |          |
| SPEED (MPH)           | 7                           | 43   | 56    | 51    | 54    | 54    | 49    | 55    | 51    | 44    | 90    | 52    | 49    | 90       |          |
| DIR. (TENS OF DEGS)   |                             | 09   | 20    | 26    | 23    | 31    | 34    | 27    | 32    | 28    | 26    | 24    | 30    | 26       |          |
| YEAR OF OCCURRENCE    |                             | 1999 | 1999  | 2002  | 1997  | 1997  | 2001  | 2003  | 1997  | 1997  | 2001  | 1998  | 1998  | OCT 2001 |          |
| PRECIPITATION         | NORMAL (IN)                 | 30   | 2.27  | 1.98  | 2.89  | 3.62  | 3.50  | 4.19  | 3.73  | 3.98  | 3.79  | 3.27  | 3.39  | 3.09     | 39.70    |
|                       | MAXIMUM MONTHLY (IN)        | 64   | 5.28  | 5.23  | 7.96  | 9.20  | 8.09  | 10.86 | 7.47  | 8.30  | 9.01  | 9.75  | 6.72  | 5.50     | 10.86    |
|                       | YEAR OF OCCURRENCE          |      | 1959  | 1976  | 1976  | 1947  | 1996  | 1993  | 1982  | 1979  | 1977  | 1954  | 1985  | 1965     | JUN 1993 |
|                       | MINIMUM MONTHLY (IN)        | 64   | 0.44  | 0.54  | 0.54  | 0.50  | 0.80  | 0.48  | 0.02  | 0.32  | 0.01  | 0.42  | 1.24  | 0.60     | 0.01     |
|                       | YEAR OF OCCURRENCE          |      | 1945  | 1969  | 1958  | 1971  | 1994  | 1988  | 1946  | 1950  | 1979  | 1950  | 1998  | 1943     | SEP 1979 |
|                       | MAXIMUM IN 24 HOURS (IN)    | 64   | 2.81  | 2.64  | 2.33  | 3.14  | 2.99  | 4.70  | 3.64  | 4.88  | 3.00  | 3.49  | 3.95  | 3.33     | 4.88     |
|                       | YEAR OF OCCURRENCE          |      | 1960  | 1954  | 1972  | 1947  | 1976  | 1968  | 1989  | 1995  | 1977  | 1988  | 1990  | 1965     | AUG 1995 |
|                       | NORMAL NO. DAYS WITH:       |      |       |       |       |       |       |       |       |       |       |       |       |          |          |
| PRECIPITATION ≥ 0.01  | 30                          | 16.4 | 12.2  | 13.7  | 13.5  | 11.7  | 10.4  | 9.4   | 10.5  | 9.7   | 11.0  | 13.7  | 15.6  | 147.8    |          |
| PRECIPITATION ≥ 1.00  | 30                          | 0.3  | 0.2   | 0.3   | 0.7   | 0.5   | 1.1   | 0.9   | 1.1   | 0.9   | 0.8   | 0.6   | 0.5   | 7.9      |          |
| SNOWFALL              | NORMAL (IN)                 | 30   | 23.2  | 15.5  | 8.7   | 1.7   | 0.*   | 0.0   | 0.0   | 0.0   | 0.*   | 0.5   | 7.7   | 19.2     | 76.5     |
|                       | MAXIMUM MONTHLY (IN)        | 64   | 86.1  | 35.1  | 33.9  | 14.0  | 0.6   | T     | T     | T     | 1.2   | 8.8   | 30.3  | 44.6     | 86.1     |
|                       | YEAR OF OCCURRENCE          |      | 1978  | 1958  | 1960  | 1982  | 1966  | 1992  | 1996  | 1996  | 1942  | 1989  | 1977  | 2000     | JAN 1978 |
|                       | MAXIMUM IN 24 HOURS (IN)    | 64   | 16.7  | 14.4  | 14.8  | 8.7   | 0.6   | T     | T     | T     | 1.0   | 8.8   | 17.5  | 13.7     | 17.5     |
|                       | YEAR OF OCCURRENCE          |      | 1978  | 1993  | 1960  | 1982  | 1966  | 1992  | 1994  | 1989  | 1994  | 1989  | 1977  | 1981     | NOV 1977 |
|                       | MAXIMUM SNOW DEPTH (IN)     | 55   | 41    | 35    | 21    | 6     | 0     | 0     | 0     | 0     | 0     | 6     | 20    | 23       | 41       |
|                       | YEAR OF OCCURRENCE          |      | 1978  | 1978  | 1960  | 1982  |       |       |       |       |       | 1989  | 1977  | 1962     | JAN 1978 |
| NORMAL NO. DAYS WITH: |                             |      |       |       |       |       |       |       |       |       |       |       |       |          |          |
| SNOWFALL ≥ 1.0        | 30                          | 5.4  | 4.7   | 2.6   | 0.5   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1   | 2.4   | 5.5   | 21.2     |          |

PRECIPITATION (inches) 2003 SOUTH BEND, IN (SBN)

| YEAR            | JAN  | FEB  | MAR  | APR  | MAY  | JUN   | JUL  | AUG  | SEP  | OCT  | NOV  | DEC  | ANNUAL |
|-----------------|------|------|------|------|------|-------|------|------|------|------|------|------|--------|
| 1974            | 3.24 | 2.20 | 2.81 | 4.17 | 4.82 | 4.08  | 1.17 | 1.70 | 4.65 | 2.46 | 3.21 | 3.00 | 37.51  |
| 1975            | 4.58 | 3.26 | 2.96 | 6.02 | 2.08 | 5.46  | 2.58 | 7.55 | 1.15 | 1.31 | 4.73 | 3.72 | 45.40  |
| 1976            | 2.21 | 5.23 | 7.96 | 5.20 | 6.67 | 6.60  | 5.96 | 2.44 | 3.34 | 3.23 | 3.23 | 2.21 | 54.28  |
| 1977            | 1.63 | 1.27 | 7.05 | 2.75 | 1.92 | 5.71  | 2.68 | 6.03 | 9.01 | 3.08 | 4.27 | 3.65 | 49.05  |
| 1978            | 4.03 | 0.86 | 2.37 | 4.35 | 3.35 | 3.79  | 5.21 | 3.80 | 3.07 | 3.99 | 2.79 | 4.43 | 42.04  |
| 1979            | 3.22 | 1.51 | 4.03 | 5.80 | 3.03 | 4.66  | 1.75 | 8.30 | 0.01 | 4.79 | 4.88 | 3.66 | 45.64  |
| 1980            | 1.52 | 1.51 | 3.74 | 3.44 | 1.65 | 5.97  | 3.29 | 7.84 | 5.64 | 3.35 | 1.47 | 3.91 | 43.33  |
| 1981            | 0.68 | 1.92 | 0.88 | 5.28 | 6.79 | 6.97  | 3.71 | 2.30 | 3.81 | 1.23 | 2.23 | 1.81 | 37.61  |
| 1982            | 2.95 | 1.17 | 4.54 | 1.46 | 5.51 | 3.12  | 7.47 | 2.84 | 2.51 | 0.91 | 4.52 | 3.40 | 40.40  |
| 1983            | 0.77 | 0.79 | 2.46 | 5.36 | 4.83 | 2.04  | 2.45 | 1.28 | 2.81 | 1.66 | 2.60 | 3.23 | 30.28  |
| 1984            | 0.86 | 1.45 | 2.10 | 4.22 | 4.02 | 3.43  | 1.76 | 1.47 | 4.02 | 4.38 | 2.73 | 4.42 | 34.86  |
| 1985            | 2.58 | 4.32 | 3.86 | 1.93 | 1.50 | 2.88  | 3.80 | 3.82 | 1.88 | 3.36 | 6.72 | 2.51 | 39.16  |
| 1986            | 1.24 | 2.46 | 2.09 | 1.87 | 3.42 | 5.06  | 6.15 | 1.90 | 4.27 | 3.81 | 2.90 | 1.67 | 36.84  |
| 1987            | 2.31 | 1.32 | 1.18 | 2.67 | 3.50 | 3.57  | 3.61 | 3.34 | 3.64 | 3.20 | 2.11 | 4.12 | 34.57  |
| 1988            | 2.21 | 1.98 | 3.03 | 2.91 | 1.40 | 0.48  | 1.28 | 5.63 | 4.42 | 6.68 | 5.72 | 2.91 | 38.65  |
| 1989            | 1.58 | 1.05 | 2.27 | 2.83 | 2.72 | 3.49  | 5.90 | 5.65 | 3.78 | 1.45 | 3.55 | 1.83 | 36.10  |
| 1990            | 2.36 | 3.66 | 2.79 | 2.91 | 6.86 | 4.40  | 5.45 | 4.60 | 3.76 | 7.09 | 6.69 | 5.04 | 55.61  |
| 1991            | 1.64 | 1.79 | 2.79 | 4.58 | 4.01 | 0.62  | 1.32 | 3.68 | 2.71 | 8.75 | 2.75 | 1.67 | 36.31  |
| 1992            | 1.64 | 1.73 | 2.93 | 2.19 | 1.17 | 1.74  | 5.24 | 2.07 | 8.84 | 1.60 | 5.54 | 3.99 | 38.68  |
| 1993            | 3.35 | 1.20 | 2.62 | 3.64 | 2.34 | 10.86 | 1.51 | 4.38 | 7.76 | 4.09 | 2.39 | 1.50 | 45.64  |
| 1994            | 2.46 | 1.45 | 0.80 | 2.80 | 0.80 | 5.10  | 4.97 | 4.19 | 4.68 | 3.49 | 4.36 | 2.50 | 37.60  |
| 1995            | 2.46 | 2.00 | 1.84 | 4.56 | 3.67 | 2.36  | 6.50 | 8.29 | 0.89 | 3.22 | 4.40 | 1.89 | 42.08  |
| 1996            | 1.66 | 2.09 | 1.24 | 3.60 | 8.09 | 7.20  | 6.69 | 1.75 | 3.30 | 3.27 | 3.70 | 2.90 | 45.49  |
| 1997            | 2.63 | 3.86 | 2.02 | 1.36 | 3.77 | 3.16  | 1.98 | 5.05 | 2.86 | 2.16 | 2.45 | 2.14 | 33.44  |
| 1998            | 3.76 | 1.69 | 4.03 | 3.78 | 2.49 | 3.98  | 2.27 | 5.84 | 1.54 | 2.50 | 1.24 | 2.04 | 35.16  |
| 1999            | 3.06 | 1.58 | 1.18 | 7.48 | 1.64 | 2.60  | 2.39 | 4.12 | 1.25 | 1.37 | 1.32 | 2.66 | 30.65  |
| 2000            | 2.57 | 1.63 | 1.81 | 3.69 | 4.60 | 7.75  | 2.88 | 1.49 | 3.22 | 2.28 | 3.07 | 2.29 | 37.28  |
| 2001            | 0.83 | 3.47 | 1.11 | 3.65 | 4.31 | 4.25  | 2.97 | 3.75 | 3.65 | 7.06 | 2.66 | 2.25 | 39.96  |
| 2002            | 2.48 | 2.10 | 2.77 | 3.40 | 5.75 | 1.26  | 2.47 | 2.31 | 1.16 | 1.43 | 1.91 | 1.80 | 28.84  |
| 2003            | 1.21 | 0.91 | 1.52 | 3.30 | 6.34 | 1.16  | 6.22 | 1.74 | 3.69 | 2.68 | 4.15 | 1.70 | 34.62  |
| POR=<br>110 YRS | 2.29 | 1.87 | 2.79 | 3.46 | 3.62 | 3.70  | 3.43 | 3.51 | 3.35 | 3.00 | 2.91 | 2.59 | 36.52  |

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AVERAGE TEMPERATURE (°F) 2003 SOUTH BEND, IN (SBN)

| YEAR            | JAN  | FEB  | MAR  | APR  | MAY  | JUN  | JUL  | AUG  | SEP  | OCT  | NOV  | DEC  | ANNUAL |
|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| 1974            | 27.9 | 28.1 | 39.6 | 51.7 | 57.3 | 66.8 | 75.0 | 71.9 | 62.0 | 53.0 | 42.4 | 32.9 | 50.7   |
| 1975            | 30.0 | 27.8 | 34.4 | 43.6 | 63.2 | 70.3 | 71.8 | 73.6 | 60.1 | 55.9 | 48.1 | 32.7 | 51.0   |
| 1976            | 21.6 | 35.3 | 43.6 | 52.5 | 57.0 | 70.9 | 72.8 | 69.0 | 61.3 | 47.9 | 33.2 | 22.8 | 49.0   |
| 1977            | 12.3 | 26.8 | 44.1 | 55.4 | 68.7 | 67.1 | 76.2 | 69.8 | 65.3 | 50.5 | 42.6 | 25.9 | 50.4   |
| 1978            | 18.5 | 14.8 | 31.2 | 48.7 | 59.5 | 69.2 | 71.7 | 71.9 | 68.9 | 51.9 | 42.9 | 29.5 | 48.2   |
| 1979            | 17.9 | 16.3 | 39.2 | 46.2 | 58.5 | 70.1 | 72.3 | 71.3 | 65.4 | 54.2 | 42.3 | 34.8 | 49.0   |
| 1980            | 27.1 | 23.6 | 35.5 | 49.0 | 62.1 | 67.8 | 76.6 | 75.0 | 66.3 | 50.4 | 41.6 | 31.1 | 50.5   |
| 1981            | 23.4 | 32.1 | 40.7 | 52.5 | 56.6 | 69.2 | 71.4 | 70.6 | 62.8 | 50.0 | 41.5 | 27.6 | 49.9   |
| 1982            | 15.6 | 22.7 | 35.1 | 44.7 | 66.0 | 64.5 | 73.3 | 68.9 | 63.3 | 54.0 | 42.5 | 39.0 | 49.1   |
| 1983            | 29.3 | 33.2 | 40.2 | 45.5 | 55.3 | 72.0 | 78.7 | 78.3 | 66.5 | 53.8 | 43.8 | 18.4 | 51.3   |
| 1984            | 18.5 | 35.9 | 30.0 | 48.2 | 56.1 | 72.3 | 71.7 | 74.4 | 63.8 | 57.1 | 41.0 | 34.4 | 50.3   |
| 1985            | 19.6 | 23.7 | 41.3 | 55.2 | 63.1 | 66.8 | 73.1 | 69.8 | 65.6 | 54.6 | 41.6 | 20.1 | 49.5   |
| 1986            | 25.8 | 24.8 | 40.4 | 51.3 | 59.9 | 67.7 | 74.8 | 67.6 | 65.9 | 53.0 | 36.1 | 31.2 | 49.9   |
| 1987            | 25.3 | 30.8 | 40.0 | 50.4 | 64.7 | 72.8 | 75.8 | 71.7 | 64.6 | 46.8 | 43.7 | 32.8 | 51.6   |
| 1988            | 21.3 | 22.7 | 37.3 | 48.4 | 62.2 | 72.0 | 76.4 | 75.9 | 64.5 | 45.9 | 42.5 | 28.8 | 49.8   |
| 1989            | 33.4 | 22.2 | 37.0 | 47.3 | 57.2 | 68.0 | 73.9 | 70.6 | 61.8 | 52.9 | 38.8 | 17.7 | 48.4   |
| 1990            | 34.0 | 31.3 | 40.9 | 48.7 | 56.7 | 68.8 | 71.2 | 69.9 | 65.0 | 52.3 | 45.9 | 31.8 | 51.4   |
| 1991            | 24.2 | 32.3 | 41.5 | 52.6 | 67.5 | 74.0 | 75.7 | 73.2 | 63.2 | 54.9 | 36.6 | 32.1 | 52.3   |
| 1992            | 29.1 | 33.2 | 37.4 | 46.1 | 58.4 | 65.1 | 70.0 | 67.4 | 62.3 | 51.4 | 40.0 | 30.9 | 49.3   |
| 1993            | 28.3 | 24.4 | 35.0 | 46.9 | 60.7 | 67.7 | 74.5 | 73.6 | 58.9 | 50.5 | 39.4 | 29.7 | 49.1   |
| 1994            | 16.3 | 22.5 | 36.6 | 51.0 | 57.4 | 71.4 | 72.9 | 67.9 | 65.0 | 54.0 | 44.6 | 35.1 | 49.6   |
| 1995            | 25.3 | 25.3 | 40.3 | 46.5 | 57.9 | 71.3 | 74.9 | 77.2 | 62.2 | 54.3 | 34.8 | 26.0 | 49.7   |
| 1996            | 24.1 | 27.8 | 32.3 | 46.0 | 57.3 | 68.9 | 68.5 | 71.1 | 62.6 | 52.4 | 33.8 | 29.4 | 47.9   |
| 1997            | 20.6 | 29.6 | 37.6 | 43.7 | 52.5 | 68.3 | 72.2 | 67.9 | 62.4 | 51.6 | 36.2 | 30.7 | 47.8   |
| 1998            | 31.6 | 37.0 | 38.6 | 49.5 | 65.0 | 68.3 | 72.5 | 73.0 | 67.4 | 53.8 | 43.6 | 34.6 | 52.9   |
| 1999            | 22.7 | 33.0 | 33.5 | 51.0 | 62.7 | 71.3 | 78.0 | 70.1 | 64.9 | 52.6 | 45.9 | 31.9 | 51.5   |
| 2000            | 25.5 | 35.0 | 44.1 | 46.7 | 61.4 | 67.4 | 70.0 | 70.9 | 63.1 | 55.7 | 37.4 | 17.1 | 49.5   |
| 2001            | 24.7 | 28.1 | 34.1 | 53.7 | 61.2 | 67.3 | 72.4 | 72.9 | 61.8 | 52.7 | 48.6 | 35.1 | 51.1   |
| 2002            | 32.7 | 33.0 | 34.2 | 49.8 | 54.3 | 71.2 | 76.8 | 72.8 | 68.1 | 49.8 | 38.1 | 28.7 | 50.8   |
| 2003            | 20.3 | 23.1 | 37.9 | 50.4 | 56.0 | 66.1 | 71.1 | 72.9 | 62.4 | 51.1 | 43.3 | 32.1 | 48.9   |
| POR=<br>110 YRS | 24.6 | 26.4 | 36.5 | 48.3 | 59.3 | 68.9 | 73.3 | 71.5 | 64.6 | 53.2 | 40.2 | 28.7 | 49.6   |

HEATING DEGREE DAYS (base 65°F) 2003 SOUTH BEND, IN (SBN)

| YEAR    | JUL | AUG | SEP | OCT | NOV | DEC  | JAN  | FEB  | MAR  | APR | MAY | JUN | TOTAL |
|---------|-----|-----|-----|-----|-----|------|------|------|------|-----|-----|-----|-------|
| 1974-75 | 0   | 3   | 144 | 378 | 672 | 985  | 1077 | 1035 | 944  | 634 | 136 | 37  | 6045  |
| 1975-76 | 13  | 1   | 175 | 300 | 503 | 992  | 1338 | 856  | 658  | 407 | 253 | 9   | 5505  |
| 1976-77 | 0   | 19  | 139 | 525 | 949 | 1302 | 1628 | 1063 | 640  | 327 | 85  | 68  | 6745  |
| 1977-78 | 2   | 18  | 58  | 443 | 669 | 1206 | 1436 | 1401 | 1041 | 480 | 233 | 41  | 7028  |
| 1978-79 | 5   | 4   | 57  | 399 | 656 | 1095 | 1453 | 1356 | 795  | 560 | 241 | 22  | 6643  |
| 1979-80 | 3   | 17  | 73  | 353 | 672 | 928  | 1172 | 1195 | 908  | 482 | 147 | 58  | 6008  |
| 1980-81 | 0   | 1   | 62  | 449 | 694 | 1047 | 1282 | 915  | 749  | 374 | 271 | 6   | 5850  |
| 1981-82 | 4   | 8   | 132 | 460 | 700 | 1154 | 1523 | 1178 | 922  | 604 | 64  | 72  | 6821  |
| 1982-83 | 2   | 30  | 114 | 353 | 668 | 798  | 1100 | 886  | 760  | 581 | 298 | 30  | 5620  |
| 1983-84 | 6   | 0   | 94  | 352 | 628 | 1440 | 1431 | 838  | 1080 | 503 | 290 | 4   | 6666  |
| 1984-85 | 7   | 0   | 128 | 244 | 714 | 940  | 1401 | 1153 | 727  | 339 | 116 | 47  | 5816  |
| 1985-86 | 0   | 4   | 121 | 319 | 694 | 1381 | 1208 | 1117 | 760  | 425 | 192 | 46  | 6267  |
| 1986-87 | 3   | 48  | 81  | 369 | 858 | 1038 | 1224 | 950  | 766  | 436 | 139 | 16  | 5928  |
| 1987-88 | 5   | 25  | 78  | 558 | 638 | 993  | 1347 | 1220 | 851  | 498 | 158 | 37  | 6408  |
| 1988-89 | 1   | 11  | 72  | 581 | 670 | 1116 | 972  | 1190 | 865  | 528 | 271 | 40  | 6317  |
| 1989-90 | 0   | 12  | 147 | 381 | 779 | 1462 | 954  | 936  | 751  | 521 | 257 | 46  | 6246  |
| 1990-91 | 6   | 14  | 110 | 408 | 565 | 1021 | 1260 | 910  | 722  | 378 | 106 | 2   | 5502  |
| 1991-92 | 0   | 1   | 167 | 318 | 844 | 1012 | 1104 | 915  | 850  | 561 | 247 | 75  | 6094  |
| 1992-93 | 6   | 25  | 139 | 417 | 742 | 1049 | 1130 | 1130 | 925  | 536 | 157 | 55  | 6311  |
| 1993-94 | 0   | 7   | 198 | 450 | 765 | 1087 | 1505 | 1186 | 875  | 441 | 273 | 28  | 6815  |
| 1994-95 | 0   | 30  | 92  | 336 | 606 | 921  | 1224 | 1105 | 759  | 548 | 221 | 20  | 5862  |
| 1995-96 | 7   | 0   | 135 | 337 | 896 | 1202 | 1258 | 1072 | 1005 | 566 | 276 | 23  | 6777  |
| 1996-97 | 22  | 1   | 140 | 384 | 928 | 1098 | 1368 | 983  | 844  | 631 | 383 | 39  | 6821  |
| 1997-98 | 12  | 20  | 120 | 437 | 858 | 1057 | 1026 | 775  | 824  | 458 | 74  | 80  | 5741  |
| 1998-99 | 0   | 0   | 52  | 346 | 632 | 936  | 1304 | 893  | 968  | 412 | 134 | 41  | 5718  |
| 1999-00 | 0   | 3   | 92  | 377 | 566 | 1020 | 1218 | 863  | 646  | 540 | 167 | 59  | 5551  |
| 2000-01 | 7   | 6   | 153 | 291 | 820 | 1476 | 1242 | 1026 | 951  | 342 | 168 | 87  | 6569  |
| 2001-02 | 22  | 0   | 139 | 381 | 489 | 923  | 993  | 891  | 948  | 487 | 347 | 25  | 5645  |
| 2002-03 | 0   | 2   | 41  | 487 | 800 | 1116 | 1376 | 1167 | 832  | 441 | 279 | 62  | 6603  |
| 2003-   | 0   | 2   | 136 | 427 | 643 | 1012 |      |      |      |     |     |     |       |

WBAN : 14848

COOLING DEGREE DAYS (base 65°F) 2003 SOUTH BEND, IN (SBN)

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|
| 1974 | 0   | 0   | 0   | 10  | 17  | 114 | 321 | 222 | 60  | 11  | 0   | 0   | 755    |
| 1975 | 0   | 0   | 0   | 0   | 86  | 203 | 232 | 274 | 32  | 25  | 1   | 0   | 853    |
| 1976 | 0   | 0   | 1   | 37  | 13  | 192 | 249 | 150 | 36  | 4   | 0   | 0   | 682    |
| 1977 | 0   | 0   | 0   | 47  | 206 | 137 | 355 | 173 | 74  | 0   | 2   | 0   | 994    |
| 1978 | 0   | 0   | 0   | 0   | 70  | 173 | 218 | 227 | 179 | 0   | 1   | 0   | 868    |
| 1979 | 0   | 0   | 0   | 2   | 48  | 181 | 236 | 220 | 93  | 21  | 0   | 0   | 801    |
| 1980 | 0   | 0   | 0   | 9   | 65  | 145 | 367 | 319 | 107 | 6   | 0   | 0   | 1018   |
| 1981 | 0   | 0   | 2   | 6   | 15  | 137 | 211 | 191 | 72  | 0   | 0   | 0   | 634    |
| 1982 | 0   | 0   | 0   | 3   | 105 | 65  | 266 | 159 | 71  | 17  | 0   | 0   | 686    |
| 1983 | 0   | 0   | 0   | 1   | 3   | 247 | 440 | 417 | 146 | 13  | 0   | 0   | 1267   |
| 1984 | 0   | 0   | 0   | 5   | 19  | 228 | 226 | 298 | 98  | 7   | 0   | 0   | 881    |
| 1985 | 0   | 0   | 0   | 52  | 64  | 109 | 260 | 159 | 147 | 3   | 0   | 0   | 794    |
| 1986 | 0   | 0   | 4   | 22  | 41  | 135 | 312 | 136 | 113 | 2   | 0   | 0   | 765    |
| 1987 | 0   | 0   | 0   | 3   | 136 | 256 | 345 | 240 | 71  | 0   | 3   | 0   | 1054   |
| 1988 | 0   | 0   | 0   | 3   | 77  | 254 | 362 | 357 | 65  | 0   | 0   | 0   | 1118   |
| 1989 | 0   | 0   | 1   | 6   | 37  | 137 | 283 | 194 | 55  | 11  | 0   | 0   | 724    |
| 1990 | 0   | 0   | 9   | 37  | 8   | 167 | 203 | 171 | 117 | 21  | 0   | 0   | 733    |
| 1991 | 0   | 0   | 0   | 13  | 189 | 281 | 338 | 264 | 121 | 11  | 0   | 0   | 1217   |
| 1992 | 0   | 0   | 0   | 2   | 50  | 90  | 168 | 103 | 66  | 2   | 0   | 0   | 481    |
| 1993 | 0   | 0   | 0   | 0   | 29  | 144 | 302 | 284 | 18  | 9   | 0   | 0   | 786    |
| 1994 | 0   | 0   | 0   | 26  | 45  | 226 | 255 | 124 | 98  | 2   | 0   | 0   | 776    |
| 1995 | 0   | 0   | 0   | 0   | 9   | 216 | 320 | 382 | 57  | 10  | 0   | 0   | 994    |
| 1996 | 0   | 0   | 0   | 1   | 44  | 147 | 136 | 201 | 74  | 0   | 0   | 0   | 603    |
| 1997 | 0   | 0   | 0   | 0   | 0   | 146 | 241 | 117 | 48  | 29  | 0   | 0   | 581    |
| 1998 | 0   | 0   | 9   | 0   | 82  | 185 | 238 | 253 | 131 | 8   | 0   | 0   | 906    |
| 1999 | 0   | 0   | 0   | 0   | 67  | 236 | 410 | 166 | 96  | 3   | 0   | 0   | 978    |
| 2000 | 0   | 0   | 4   | 0   | 62  | 138 | 171 | 197 | 102 | 9   | 0   | 0   | 683    |
| 2001 | 0   | 0   | 0   | 11  | 56  | 164 | 259 | 253 | 53  | 6   | 0   | 0   | 802    |
| 2002 | 0   | 0   | 0   | 40  | 24  | 218 | 372 | 252 | 144 | 21  | 0   | 0   | 1071   |
| 2003 | 0   | 0   | 0   | 10  | 7   | 103 | 197 | 255 | 63  | 2   | 0   | 0   | 637    |

SNOWFALL (inches) 2003 SOUTH BEND, IN (SBN)

| YEAR           | JUL | AUG | SEP | OCT | NOV  | DEC  | JAN  | FEB  | MAR  | APR  | MAY | JUN | TOTAL |
|----------------|-----|-----|-----|-----|------|------|------|------|------|------|-----|-----|-------|
| 1974-75        | 0.0 | 0.0 | 0.0 | 0.6 | 7.9  | 19.9 | 9.2  | 13.9 | 17.8 | 5.4  | 0.0 | 0.0 | 74.7  |
| 1975-76        | 0.0 | 0.0 | 0.0 | 0.0 | 10.7 | 14.0 | 31.2 | 13.9 | 3.8  | 0.6  | 0.1 | 0.0 | 74.3  |
| 1976-77        | 0.0 | 0.0 | 0.0 | 0.8 | 21.6 | 37.6 | 37.2 | 13.9 | 15.8 | 2.3  | 0.0 | 0.0 | 129.2 |
| 1977-78        | 0.0 | 0.0 | 0.0 | 0.3 | 30.3 | 33.6 | 86.1 | 16.6 | 5.1  | T    | 0.0 | 0.0 | 172.0 |
| 1978-79        | 0.0 | 0.0 | 0.0 | 0.0 | 7.5  | 26.4 | 45.1 | 15.9 | 6.3  | 0.1  | 0.0 | 0.0 | 101.3 |
| 1979-80        | 0.0 | 0.0 | 0.0 | T   | 7.5  | 13.6 | 11.5 | 22.3 | 9.8  | 1.7  | 0.0 | 0.0 | 66.4  |
| 1980-81        | 0.0 | 0.0 | 0.0 | 1.1 | 8.8  | 24.3 | 23.8 | 20.7 | 6.3  | T    | 0.0 | 0.0 | 85.0  |
| 1981-82        | 0.0 | 0.0 | 0.0 | 0.1 | 9.1  | 41.3 | 41.3 | 19.2 | 10.2 | 14.0 | 0.0 | 0.0 | 135.2 |
| 1982-83        | 0.0 | 0.0 | 0.0 | 0.0 | 2.1  | 2.5  | 8.0  | 9.6  | 12.0 | 1.1  | 0.0 | 0.0 | 35.3  |
| 1983-84        | 0.0 | 0.0 | 0.0 | 0.0 | 1.4  | 35.6 | 16.7 | 15.9 | 11.1 | 0.4  | 0.0 | 0.0 | 81.1  |
| 1984-85        | 0.0 | 0.0 | 0.0 | 0.0 | 0.6  | 14.1 | 40.0 | 28.9 | 1.6  | 3.1  | 0.0 | 0.0 | 88.3  |
| 1985-86        | 0.0 | 0.0 | 0.0 | 0.0 | 2.2  | 40.4 | 26.3 | 11.3 | 3.6  | 0.2  | 0.0 | 0.0 | 84.0  |
| 1986-87        | 0.0 | 0.0 | 0.0 | 0.0 | 9.7  | 4.8  | 31.4 | 5.9  | 2.0  | 1.5  | 0.0 | 0.0 | 55.3  |
| 1987-88        | 0.0 | 0.0 | T   | T   | 1.6  | 13.1 | 11.4 | 22.9 | 12.1 | T    | 0.0 | 0.0 | 61.1  |
| 1988-89        | 0.0 | 0.0 | 0.0 | 0.3 | 7.8  | 14.8 | 3.1  | 16.3 | 2.5  | 1.7  | T   | T   | 46.5  |
| 1989-90        | T   | T   | 0.0 | 8.8 | 15.2 | 29.4 | 1.2  | 13.9 | 3.4  | 1.1  | 0.0 | 0.0 | 73.0  |
| 1990-91        | 0.0 | 0.0 | 0.0 | T   | T    | 17.5 | 15.7 | 23.4 | 2.4  | T    | T   | 0.0 | 59.0  |
| 1991-92        | 0.0 | 0.0 | 0.0 | T   | 7.6  | 11.7 | 19.9 | 10.9 | 16.7 | 0.9  | 0.0 | T   | 67.7  |
| 1992-93        | 0.0 | 0.0 | 0.0 | 1.2 | 7.7  | 12.6 | 8.1  | 32.2 | 19.0 | 1.4  | 0.0 | 0.0 | 82.2  |
| 1993-94        | 0.0 | 0.0 | 0.1 | T   | 2.2  | 11.3 | 21.5 | 20.0 | 0.1  | 0.8  | T   | 0.0 | 56.0  |
| 1994-95        | T   | 0.0 | 1.0 | 0.0 | T    | 2.4  | 17.3 | 25.8 | 2.8  | 0.6  | 0.0 | 0.0 | 49.9  |
| 1995-96        | 0.0 | 0.0 | 0.0 | T   | 6.2  | 22.1 | 12.2 | 7.9  | 8.3  | 0.9  | T   | 0.0 | 57.6  |
| 1996-97        | T   | T   | 0.0 | 0.0 | 15.3 | 10.5 | 36.4 | 10.2 | 3.3  | 0.4  | T   | 0.0 | 76.1  |
| 1997-98        | 0.0 | 0.0 | 0.0 | 0.2 | 5.6  | 18.1 | 7.8  | T    | 20.8 | 0.0  | 0.0 | T   | 52.5  |
| 1998-99        | T   | 0.0 | 0.0 | 0.0 | T    | 17.1 | 37.0 | 10.4 | 14.2 | T    | T   | 0.0 | 78.7  |
| 1999-00        | 0.0 | 0.0 | 0.0 | 0.0 | 1.9  | 7.4  | 37.1 | 11.4 | T    | 1.1  | 0.0 | 0.0 | 58.9  |
| 2000-01        | T   | 0.0 | 0.0 | T   | 10.4 | 44.6 | 2.9  | 5.4  | 10.6 | 2.7  | T   | 0.0 | 76.6  |
| 2001-02        | T   | 0.0 | 0.0 | T   | 0.0  | 19.5 | 10.4 | 18.4 | 14.2 | 0.3  | 0.0 | 0.0 | 62.8  |
| 2002-03        | 0.0 | 0.0 | 0.0 | T   | 4.6  | 9.0  | 27.2 | 14.5 | 3.8  | 1.0  | 0.0 | 0.0 | 60.1  |
| 2003-          | T   | 0.0 | 0.0 | 0.0 | 0.2  | 10.5 |      |      |      |      |     |     |       |
| POR=<br>63 YRS | T   | T   | 0.0 | 0.7 | 7.4  | 17.6 | 19.2 | 14.5 | 8.7  | 1.9  | 0.3 | T   | 70.3  |

WBAN : 14848

REFERENCE NOTES :

|   |  |
|---|--|
| <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.</p> | <p>GENERAL CONTINUED:<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.<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.</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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2003  
SOUTH BEND,  
INDIANA (SBN)

South Bend is located on the Saint Joseph River in the northern portion of Saint Joseph County, situated on mostly level to gently rolling terrain and some former marshland. Drainage for the area is through the Saint Joseph River and Kankakee River.

South Bend is under the climatic influence of Lake Michigan with its nearest shore 20 miles to the northwest. The lake has a moderating effect on the temperature. Temperatures of 100 degrees or higher are rare and cold waves are less severe than at many locations at the same latitude. This results in favorable conditions for orchard and vegetable growth.

Based on the 1951-1980 period, the average first occurrence of 32 degrees Fahrenheit in the fall is October 18 and the average last occurrence in the spring is May 1.

Precipitation is fairly evenly distributed throughout the year with the greatest amounts during the growing season. The predominant snow season is from November through March, although there are also generally lighter amounts in October and April.

Winter is marked by considerable cloudiness and rather high humidity along with frequent periods of snow. Heavy snowfalls, resulting from a cold northwest wind passing over Lake Michigan are not uncommon.

# STATION LOCATION

SOUTH BEND, INDIANA

| LOCATION   | Occupied From | Occupied To | Airline Distances and Directions from previous Location | LATITUDE NORTH | LONGITUDE WEST | ELEVATION ABOVE |        |                 |                      |              |                 |                |            |                |                   | AUTOMATIC OBSERVING EQUIPMENT *<br>REMARKS                                   |            |
|--|---------------|-------------|---|----------------|----------------|-----------------|--------|-----------------|----------------------|--------------|-----------------|----------------|------------|----------------|-------------------|--|------------|
|  |               |             |   |                |                | SEA LEVEL       | GROUND |                 |                      |              |                 |                |            |                |                   |  | HYGROMETER |
|  |               |             |   |                |                |                 | GROUND | WIND INSTRUMENT | EXTREME THERMOMETERS | PSYCHROMETER | SUNSHINE SWITCH | TIPPING BUCKET | RAIN GAUGE | WINDHOLE GAUGE | 8 INCH RAIN GAUGE |  |            |
| *NOTE:<br><u>AIRPORT</u><br>Terminal Building Michiana Regional AP | 1/14/81       | 07/01/96    | 450' E  | 41°42'         | 86°19'         | 773             | g21    | 6               | 5                    |              |                 | h5             | 5          | 5              | g5<br>i5          | g. Not moved 1/14/81.<br>h. Commissioned 8/16/82.<br>i. Type change 9/11/85. |            |
| South Bend Regional Airport  | 07/01/96      | Present     | NA  | 41°42'         | 86°20'         | j777            |        |                 |                      |              |                 |                |            |                | S                 | ASOS Commissioned 07/01/96<br>j. Ground elevation                            |            |

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\* NOTES: For earlier station history see previous editions.