

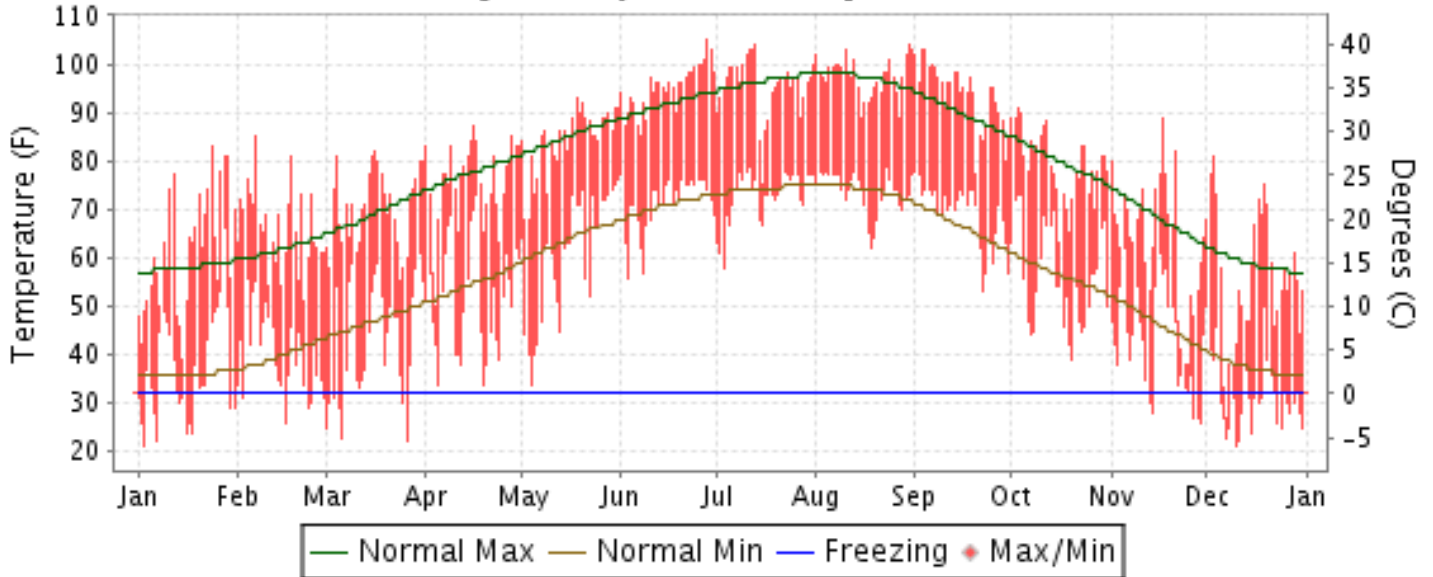


# 2013 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

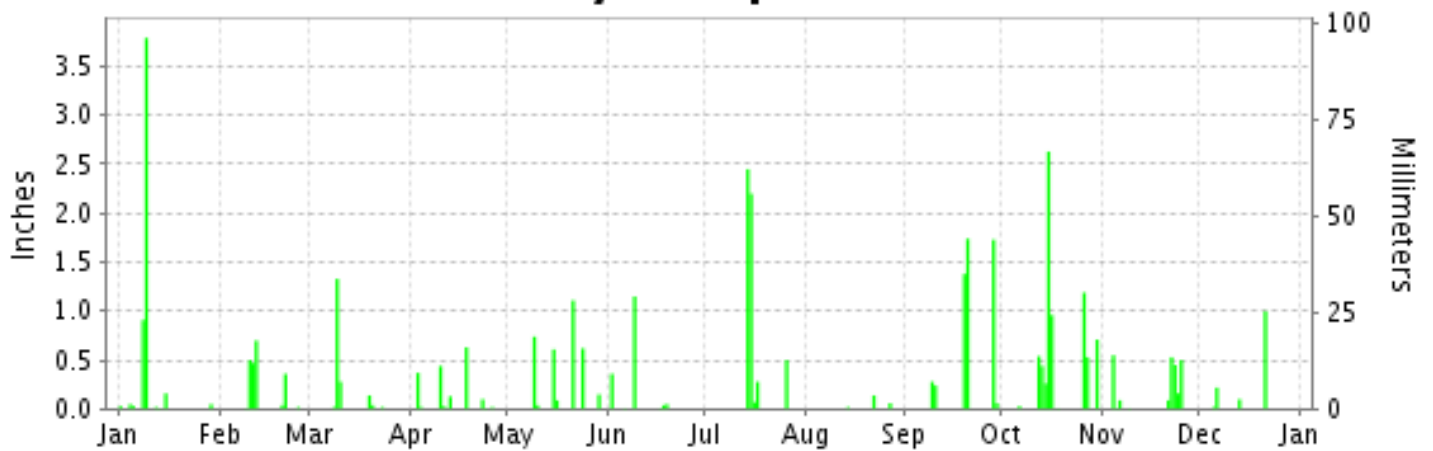
ISSN 0198-522X

## WACO, TEXAS (KACT)

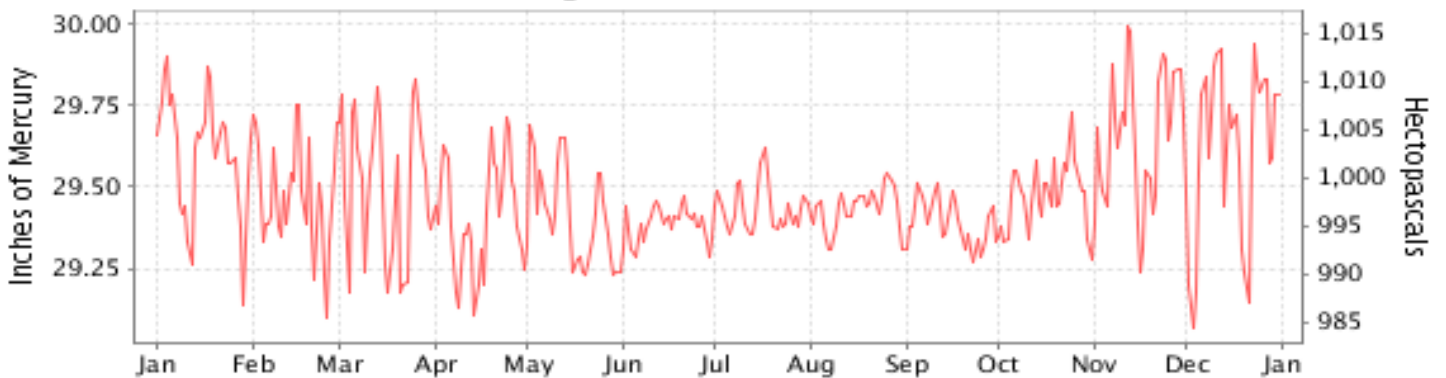
### Daily Max/Min Temperature



### Daily Precipitation



### Daily Station Pressure



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NATIONAL  
CLIMATIC DATA CENTER  
ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2013

## WACO (KACT)

LATITUDE: 31° 37'N      LONGITUDE: 97° 13'W      ELEVATION (FT): GRND: 500 BARO: 516      TIME ZONE: CENTRAL (UTC -6)      WBAN: 13959

| ELEMENT              |                             | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC    | YEAR      |  |
|----------------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-----------|--|
| TEMPERATURE °F       | MEAN DAILY MAXIMUM          | 61.5  | 66.0  | 70.1  | 75.2  | 84.2  | 95.1  | 95.3  | 97.4  | 93.5  | 79.3  | 63.6  | 55.9   | 78.1      |  |
|                      | HIGHEST DAILY MAXIMUM       | 83    | 85    | 82    | 87    | 93    | 105   | 104   | 104   | 103   | 91    | 89    | 81     | 105       |  |
|                      | DATE OF OCCURRENCE          | 24    | 07    | 16    | 16    | 18    | 28    | 13    | 30    | 04+   | 03    | 17    | 03     | JUN 28    |  |
|                      | MEAN DAILY MINIMUM          | 36.9  | 40.2  | 42.9  | 51.8  | 60.7  | 71.3  | 72.8  | 73.6  | 69.1  | 56.3  | 42.7  | 31.6   | 54.2      |  |
|                      | LOWEST DAILY MINIMUM        | 21    | 26    | 22    | 34    | 34    | 56    | 58    | 62    | 53    | 39    | 26    | 21     | 21        |  |
|                      | DATE OF OCCURRENCE          | 03    | 16    | 26    | 19+   | 04    | 03    | 03    | 18    | 22    | 20    | 29    | 10     | DEC 10    |  |
|                      | AVERAGE DRY BULB            | 49.2  | 53.1  | 56.5  | 63.5  | 72.5  | 83.2  | 84.0  | 85.5  | 81.3  | 67.8  | 53.1  | 43.8   | 66.1      |  |
|                      | MEAN WET BULB               | 44.7  | 46.1  | 49.6  | 57.1  | 64.8  | 72.0  | 72.0  | 72.7  | 70.3  | 61.5  | 48.3  | 39.7   | 58.2      |  |
|                      | MEAN DEW POINT              | 39.3  | 37.9  | 41.2  | 52.2  | 59.8  | 66.4  | 66.1  | 66.5  | 64.6  | 57.5  | 43.4  | 35.6   | 52.5      |  |
|                      | NUMBER OF DAYS WITH:        |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | MAXIMUM >= 90°              | 0     | 0     | 0     | 0     | 6     | 26    | 26    | 29    | 23    | 2     | 0     | 0      | 112       |  |
|                      | MAXIMUM <= 32°              | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 1      | 1         |  |
|                      | MINIMUM <= 32°              | 13    | 5     | 7     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 6     | 23     | 54        |  |
| MINIMUM <= 0°        | 0                           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      |           |  |
| H/C                  | HEATING DEGREE DAYS         | 493   | 332   | 282   | 134   | 41    | 0     | 0     | 0     | 0     | 49    | 365   | 652    | 2348      |  |
|                      | COOLING DEGREE DAYS         | 11    | 6     | 26    | 95    | 279   | 552   | 598   | 644   | 496   | 145   | 18    | 0      | 2870      |  |
| RH                   | MEAN (PERCENT)              | 71    | 61    | 58    | 69    | 69    | 61    | 60    | 57    | 62    | 75    | 74    | 77     | 66        |  |
|                      | HOUR 00 LST                 | 78    | 68    | 68    | 75    | 78    | 69    | 67    | 65    | 71    | 84    | 82    | 86     | 74        |  |
|                      | HOUR 06 LST                 | 83    | 80    | 75    | 86    | 86    | 86    | 82    | 83    | 85    | 92    | 86    | 88     | 84        |  |
|                      | HOUR 12 LST                 | 62    | 50    | 45    | 60    | 56    | 47    | 48    | 44    | 46    | 61    | 61    | 64     | 54        |  |
|                      | HOUR 18 LST                 | 61    | 44    | 43    | 53    | 54    | 39    | 43    | 37    | 45    | 64    | 68    | 70     | 52        |  |
| W/O                  | NUMBER OF DAYS WITH:        |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | HEAVY FOG(VISBY <= 1/4 MI)  | 10    | 2     | 1     | 0     | 2     | 1     | 0     | 0     | 1     | 1     | 0     | 2      | 20        |  |
|                      | THUNDERSTORMS               | 1     | 3     | 3     | 2     | 7     | 4     | 1     | 1     | 4     | 4     | 0     | 2      | 32        |  |
| PR                   | MEAN STATION PRESS. (IN.)   | 29.61 | 29.47 | 29.51 | 29.41 | 29.41 | 29.39 | 29.44 | 29.43 | 29.39 | 29.47 | 29.65 | 29.62  | 29.48     |  |
|                      | MEAN SEA-LEVEL PRESS. (IN.) | 30.15 | 30.02 | 30.05 | 29.95 | 29.94 | 29.91 | 29.96 | 29.96 | 29.92 | 30.01 | 30.19 | 30.17  | 30.02     |  |
| WINDS                | RESULTANT SPEED (MPH)       | 0.9   | 0.2   | 3.1   | 5.0   | 6.3   | 6.7   | 4.7   | 5.0   | 2.9   | 2.8   | 1.0   | 1.1    | 2.9       |  |
|                      | RES. DIR. (TENS OF DEGS.)   | 21    | 30    | 17    | 16    | 17    | 17    | 15    | 16    | 14    | 15    | 04    | 30     | 17        |  |
|                      | MEAN SPEED (MPH)            | 9.1   | 10.0  | 11.4  | 11.4  | 11.6  | 9.5   | 8.7   | 7.5   | 6.5   | 8.0   | 8.6   | 7.7    | 9.2       |  |
|                      | PREVAIL.DIR.(TENS OF DEGS.) | 17    | 34    | 18    | 16    | 17    | 18    | 18    | 18    | 17    | 17    | 35    | 35     | 18        |  |
|                      | MAXIMUM 2-MINUTE WIND       |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | SPEED (MPH)                 | 36    | 45    | 36    | 30    | 44    | 28    | 33    | 33    | 41    | 38    | 31    | 30     | 45        |  |
|                      | DIR. (TENS OF DEGS.)        | 29    | 17    | 34    | 17    | 17    | 33    | 31    | 12    | 18    | 35    | 34    | 19     | 17        |  |
|                      | DATE OF OCCURRENCE          | 29    | 10    | 05    | 18    | 15    | 19    | 26    | 10    | 09    | 12    | 22    | 19     | FEB 10    |  |
|                      | MAXIMUM 3-SECOND WIND:      |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | SPEED (MPH)                 | 46    | 63    | 46    | 40    | 54    | 36    | 39    | 47    | 51    | 48    | 43    | 36     | 63        |  |
| DIR. (TENS OF DEGS.) | 29                          | 19    | 34    | 17    | 25    | 30    | 31    | 12    | 18    | 35    | 35    | 18    | 19     |           |  |
| DATE OF OCCURRENCE   | 29                          | 10    | 05    | 18    | 15    | 19    | 26    | 10    | 09    | 12    | 22    | 19    | FEB 10 |           |  |
| PRECIPITATION        | WATER EQUIVALENT:           |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
|                      | TOTAL (IN.)                 | 5.05  | 2.10  | 1.83  | 1.75  | 3.36  | 1.62  | 5.50  | 0.22  | 5.43  | 7.30  | 2.39  | 1.34   | 37.89     |  |
|                      | GREATEST 24-HOUR (IN.)      | 4.46  | 1.16  | 1.61  | 0.63  | 1.11  | 1.15  | 4.42  | 0.50  | 3.02  | 3.59  | 0.77  | 1.00   | 4.46      |  |
|                      | DATE OF OCCURRENCE          | 08-09 | 11-12 | 09-10 | 18    | 21    | 09    | 14-15 | 05    | 19-20 | 15-16 | 22-23 | 21     | JAN 08-09 |  |
|                      | NUMBER OF DAYS WITH:        |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
| PRECIPITATION 0.01   | 9                           | 7     | 6     | 9     | 7     | 6     | 5     | 3     | 6     | 10    | 9     | 4     | 81     |           |  |
| PRECIPITATION 0.10   | 3                           | 4     | 3     | 5     | 5     | 2     | 4     | 1     | 5     | 8     | 5     | 3     | 48     |           |  |
| PRECIPITATION 1.00   | 1                           | 0     | 1     | 0     | 1     | 1     | 2     | 0     | 3     | 2     | 0     | 1     | 12     |           |  |
| SNOWFALL             | SNOW,ICE PELLETS,HAIL       | T     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | T     | T      | T         |  |
|                      | TOTAL (IN.)                 | T     | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | T     | T      | T         |  |
|                      | GREATEST 24-HOUR (IN.)      | 15    |       |       |       |       |       |       |       |       |       | 24+   | 07+    | DEC 07+   |  |
|                      | DATE OF OCCURRENCE          | T     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | T         |  |
|                      | MAXIMUM SNOW DEPTH (IN.)    | 15    |       |       |       |       |       |       |       |       |       |       |        | JAN 15    |  |
|                      | DATE OF OCCURRENCE          |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
| NUMBER OF DAYS WITH: |                             |       |       |       |       |       |       |       |       |       |       |       |        |           |  |
| SNOWFALL >= 1.0      | 0                           | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      |           |  |

# NORMALS, MEANS, AND EXTREMES WACO (KACT)

**LATITUDE:** 31° 37'N      **LONGITUDE:** 97° 13'W      **ELEVATION (FT):** GRND: 500 BARO: 516      **TIME ZONE:** CENTRAL (UTC -6)      **WBAN: 13959**

| ELEMENT                                  |   | POR  | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | OCT   | NOV   | DEC      | YEAR     |
|--|---|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----------|
| <b>TEMPERATURE °F</b>                    | NORMAL DAILY MAXIMUM                              | 30   | 58.2  | 61.8  | 69.2  | 77.6  | 85.0  | 91.7  | 96.3  | 96.8  | 89.8  | 79.9  | 68.5  | 59.0     | 77.8     |
|  | MEAN DAILY MAXIMUM                                | 84   | 57.5  | 60.8  | 69.6  | 77.4  | 84.8  | 91.6  | 96.4  | 96.9  | 89.4  | 80.5  | 67.8  | 60.0     | 77.7     |
|  | HIGHEST DAILY MAXIMUM                             | 71   | 88    | 96    | 100   | 101   | 102   | 109   | 109   | 112   | 111   | 101   | 92    | 91       | 112      |
|  | YEAR OF OCCURRENCE                                |      | 1971  | 1996  | 1971  | 1963  | 1985  | 1980  | 1998  | 1969  | 2000  | 1989  | 1988  | 1955     | AUG 1969 |
|  | MEAN OF EXTREME MAXS.                             | 84   | 78.0  | 81.0  | 85.7  | 89.9  | 94.2  | 98.9  | 102.4 | 103.8 | 99.5  | 93.0  | 84.8  | 78.4     | 90.8     |
|  | NORMAL DAILY MINIMUM                              | 30   | 36.1  | 39.8  | 47.1  | 54.6  | 63.8  | 70.8  | 74.1  | 73.8  | 66.4  | 56.6  | 46.5  | 37.5     | 55.6     |
|  | MEAN DAILY MINIMUM                                | 84   | 36.3  | 39.3  | 47.0  | 55.4  | 64.2  | 70.9  | 74.8  | 74.4  | 67.3  | 57.2  | 45.8  | 38.4     | 55.9     |
|  | LOWEST DAILY MINIMUM                              | 71   | -5    | 4     | 15    | 26    | 34    | 52    | 58    | 53    | 40    | 25    | 17    | -4       | -5       |
|  | YEAR OF OCCURRENCE                                |      | 1949  | 1985  | 1948  | 2009  | 2013  | 1964  | 2013  | 1992  | 1983  | 1993  | 1976  | 1989     | JAN 1949 |
|  | MEAN OF EXTREME MINS.                             | 84   | 19.1  | 22.8  | 28.8  | 37.8  | 49.5  | 60.9  | 68.0  | 66.4  | 53.0  | 39.8  | 29.0  | 21.9     | 41.4     |
|  | NORMAL DRY BULB                                   | 30   | 47.2  | 50.8  | 58.2  | 66.1  | 74.4  | 81.2  | 85.2  | 85.3  | 78.1  | 68.3  | 57.5  | 48.3     | 66.7     |
|  | MEAN DRY BULB                                     | 84   | 46.9  | 50.1  | 58.3  | 66.4  | 74.5  | 81.3  | 85.6  | 85.7  | 78.3  | 68.9  | 56.8  | 49.2     | 66.8     |
|  | MEAN WET BULB                                     | 30   | 40.7  | 44.2  | 50.9  | 58.2  | 66.3  | 71.4  | 72.6  | 71.9  | 67.4  | 59.2  | 50.4  | 42.2     | 58.0     |
|  | MEAN DEW POINT                                    | 30   | 38.7  | 42.0  | 48.5  | 55.8  | 64.8  | 70.2  | 70.5  | 69.9  | 65.1  | 57.3  | 48.2  | 40.1     | 55.9     |
|  | NORMAL NO. DAYS WITH:<br>MAXIMUM >= 90            | 30   | 0.0   | 0.1   | 0.1   | 1.2   | 6.5   | 20.2  | 28.1  | 27.9  | 16.1  | 3.3   | 0.1   | 0.0      | 103.6    |
|  | MAXIMUM <= 32                                     | 30   | 0.4   | 0.3   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.6      | 1.3      |
| MINIMUM <= 32                            | 30  | 11.3 | 5.4   | 1.8   | 0.2   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1   | 2.6   | 9.6   | 31.0     |          |
| 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      |          |
| <b>H/C</b>                               | NORMAL HEATING DEG. DAYS                          | 30   | 556   | 404   | 246   | 78    | 6     | 0     | 0     | 0     | 6     | 61    | 261   | 524      | 2142     |
|  | NORMAL COOLING DEG. DAYS                          | 30   | 3     | 6     | 34    | 111   | 298   | 488   | 626   | 629   | 399   | 162   | 36    | 5        | 2797     |
| <b>RH</b>                                | NORMAL (PERCENT)                                  | 30   | 72    | 70    | 69    | 68    | 73    | 69    | 62    | 62    | 67    | 69    | 73    | 73       | 69       |
|  | hour 00 LST                                       | 30   | 78    | 78    | 75    | 77    | 82    | 79    | 71    | 70    | 76    | 77    | 80    | 79       | 77       |
|  | hour 06 LST                                       | 30   | 84    | 84    | 83    | 85    | 90    | 89    | 85    | 85    | 87    | 86    | 86    | 84       | 86       |
|  | hour 12 LST                                       | 30   | 64    | 61    | 59    | 57    | 61    | 56    | 49    | 48    | 54    | 56    | 61    | 62       | 57       |
|  | hour 18 LST                                       | 30   | 62    | 58    | 54    | 53    | 59    | 54    | 46    | 45    | 52    | 57    | 65    | 65       | 56       |
| <b>S</b>                                 | PERCENT POSSIBLE SUNSHINE                         |      |       |       |       |       |       |       |       |       |       |       |       |          |          |
| <b>W/O</b>                               | MEAN NO. DAYS WITH:<br>HEAVY FOG(VISBY <= 1/4 MI) | 50   | 2.7   | 1.9   | 1.4   | 0.9   | 0.7   | 0.2   | 0.1   | 0.1   | 0.4   | 0.7   | 2.2   | 2.6      | 13.9     |
|  | THUNDERSTORMS                                     | 66   | 1.4   | 2.3   | 3.6   | 5.1   | 7.1   | 5.6   | 3.7   | 4.0   | 3.6   | 3.1   | 2.0   | 1.4      | 42.9     |
| <b>CLOUDINESS</b>                        | MEAN:<br>SUNRISE-SUNSET (OKTAS)                   | 2    | 4.5   | 5.0   | 9.0   | 4.5   | 3.5   | 1.6   | 2.0   | 2.5   | 3.0   | 4.0   |       | 1.0      |          |
|  | MIDNIGHT-MIDNIGHT (OKTAS)                         | 2    | 4.5   | 5.0   | 5.0   | 2.5   | 3.5   | 2.5   | 2.0   | 2.0   | 3.0   | 2.0   |       |          |          |
|  | MEAN NO. DAYS WITH:<br>CLEAR                      | 3    | 4.7   | 8.7   | 9.0   | 7.0   | 6.0   | 10.0  | 10.5  | 13.5  | 5.0   | 7.5   | 3.0   | 4.5      | 89.4     |
|  | PARTLY CLOUDY                                     | 2    | 1.5   | 1.0   | 3.3   | 3.5   | 5.3   | 3.0   | 3.5   | 3.0   | 3.0   | 2.5   | 2.0   | 4.0      | 35.6     |
|  | CLOUDY  | 3    | 6.0   | 7.7   | 6.7   | 4.5   | 4.7   | 1.7   | 2.5   | 2.5   | 2.0   | 3.5   | 5.5   | 5.5      | 52.8     |
| <b>PR</b>                                | MEAN STATION PRESSURE(IN)                         | 30   | 29.60 | 29.55 | 29.47 | 29.41 | 29.38 | 29.39 | 29.43 | 29.42 | 29.44 | 29.49 | 29.55 | 29.59    | 29.48    |
|  | MEAN SEA-LEVEL PRES. (IN)                         | 30   | 30.15 | 30.09 | 30.01 | 29.94 | 29.91 | 29.91 | 29.95 | 29.95 | 29.96 | 30.02 | 30.09 | 30.13    | 30.01    |
| <b>WINDS</b>                             | MEAN SPEED (MPH)                                  | 30   | 10.0  | 10.7  | 11.5  | 11.5  | 10.6  | 9.9   | 9.8   | 9.0   | 8.5   | 9.2   | 9.9   | 9.7      | 10.0     |
|  | PREVAIL.DIR.(TENS OF DEGS)                        | 39   | 19    | 19    | 17    | 17    | 17    | 19    | 19    | 19    | 19    | 19    | 19    | 19       | 19       |
|  | MAXIMUM 2-MINUTE:<br>SPEED (MPH)                  | 20   | 41    | 45    | 53    | 55    | 47    | 48    | 54    | 39    | 41    | 48    | 47    | 37       | 55       |
|  | DIR. (TENS OF DEGS)                               |      | 32    | 17    | 29    | 28    | 00    | 36    | 10    | 04    | 18    | 29    | 12    | 30       | 28       |
|  | YEAR OF OCCURRENCE                                |      | 1994  | 2013  | 2004  | 1999  | 1994  | 1997  | 2010  | 2010  | 2013  | 2000  | 2001  | 2012     | APR 1999 |
|  | MAXIMUM 3-SECOND<br>SPEED (MPH)                   | 20   | 49    | 63    | 64    | 69    | 61    | 63    | 77    | 49    | 55    | 60    | 55    | 49       | 77       |
|  | DIR. (TENS OF DEGS)                               |      | 34    | 19    | 16    | 27    | 11    | 35    | 11    | 03    | 31    | 28    | 12    | 31       | 11       |
| YEAR OF OCCURRENCE                       |   | 2012 | 2013  | 2005  | 1999  | 2005  | 1997  | 2010  | 2010  | 1995  | 2000  | 2001  | 2012  | JUL 2010 |          |
| <b>PRECIPITATION</b>                     | NORMAL (IN)                                       | 30   | 2.12  | 2.63  | 3.15  | 2.69  | 4.30  | 3.43  | 1.79  | 2.05  | 3.06  | 3.90  | 2.82  | 2.75     | 34.69    |
|  | MAXIMUM MONTHLY (IN)                              | 71   | 6.10  | 7.91  | 9.76  | 13.37 | 15.00 | 12.06 | 8.58  | 10.33 | 9.49  | 10.51 | 9.72  | 9.81     | 15.00    |
|  | YEAR OF OCCURRENCE                                |      | 1998  | 1997  | 2007  | 1957  | 1965  | 1961  | 1971  | 2008  | 2010  | 1984  | 2004  | 1997     | MAY 1965 |
|  | MINIMUM MONTHLY (IN)                              | 71   | 0.03  | 0.07  | 0.04  | 0.12  | 0.55  | 0.18  | 0.00  | T     | 0.00  | 0.00  | T     | 0.04     | 0.00     |
|  | YEAR OF OCCURRENCE                                |      | 1971  | 1999  | 1956  | 1983  | 1998  | 2008  | 1993  | 1952  | 1956  | 1952  | 2012  | 1950     | JUL 1993 |
|  | MAXIMUM IN 24 HOURS (IN)                          | 71   | 4.79  | 3.97  | 6.17  | 5.09  | 7.18  | 4.21  | 4.93  | 4.80  | 5.89  | 5.83  | 4.26  | 7.98     | 7.98     |
|  | YEAR OF OCCURRENCE                                |      | 1998  | 1997  | 2012  | 1957  | 1953  | 1947  | 2004  | 1958  | 2010  | 2011  | 1952  | 1997     | DEC 1997 |
|  | NORMAL NO. DAYS WITH:<br>PRECIPITATION >= 0.01    | 30   | 7.1   | 6.8   | 8.3   | 6.3   | 8.1   | 7.5   | 5.3   | 5.0   | 5.8   | 7.2   | 7.3   | 7.1      | 81.8     |
| PRECIPITATION >= 1.00                    | 30  | 0.4  | 0.8   | 0.9   | 0.7   | 1.4   | 1.1   | 0.5   | 0.6   | 0.9   | 1.2   | 0.8   | 0.7   | 10.0     |          |
| <b>SNOWFALL</b>                          | NORMAL (IN)                                       | 30   | 0.3   | 0.5   | 0.1   | 0.2   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.1   | 0.0      | 1.2      |
|  | MAXIMUM MONTHLY (IN)                              | 63   | 7.0   | 4.8   | 1.1   | 3.5   | T     | 0.0   | 0.0   | T     | 0.0   | T     | 2.4   | 2.0      | 7.0      |
|  | YEAR OF OCCURRENCE                                |      | 1949  | 1966  | 2008  | 2007  | 1989  |       |       | 1991  |       | 1993  | 1993  | 1946     | JAN 1949 |
|  | MAXIMUM IN 24 HOURS (IN)                          | 63   | 7.0   | 4.8   | 1.0   | T     | T     | 0.0   | 0.0   | T     | 0.0   | T     | 2.4   | 2.0      | 7.0      |
|  | YEAR OF OCCURRENCE'                               |      | 1949  | 1966  | 1987  | 1993  | 1989  |       |       | 1991  |       | 1993  | 1993  | 1946     | JAN 1949 |
|  | MAXIMUM SNOW DEPTH (IN)                           | 57   | 7     | 5     | 1     | 1     | 0     | 0     | 0     | 0     | 0     | 0     | 1     | 1        | 7        |
| YEAR OF OCCURRENCE                       |   | 1949 | 1966  | 2008  | 2007  |       |       |       |       |       |       | 1976  | 1963  | JAN 1949 |          |
| NORMAL NO. DAYS WITH:<br>SNOWFALL >= 1.0 | 30  | 0.0  | 0.2   | 0.1   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.3      |          |

**PRECIPITATION (inches) 2013 WACO (KACT)**

| YEAR           | JAN  | FEB  | MAR  | APR  | MAY   | JUN  | JUL  | AUG   | SEP  | OCT   | NOV  | DEC  | ANNUAL |
|----------------|------|------|------|------|-------|------|------|-------|------|-------|------|------|--------|
| 1984           | 0.82 | 1.00 | 3.45 | 0.54 | 3.71  | 1.75 | 1.82 | 1.33  | 1.32 | 10.51 | 3.05 | 5.07 | 34.37  |
| 1985           | 0.76 | 1.91 | 2.57 | 3.37 | 1.59  | 5.62 | 0.68 | 0.68  | 6.38 | 3.84  | 3.53 | 2.02 | 32.95  |
| 1986           | 0.07 | 4.51 | 0.43 | 2.74 | 6.89  | 3.95 | 0.37 | 0.68  | 3.94 | 5.09  | 3.56 | 3.48 | 35.71  |
| 1987           | 1.29 | 2.60 | 1.67 | 1.63 | 5.16  | 5.84 | 1.42 | 0.76  | 5.69 | 1.19  | 4.44 | 3.31 | 35.00  |
| 1988           | 0.44 | 1.68 | 3.09 | 1.28 | 0.65  | 5.57 | 1.15 | 0.56  | 5.52 | 0.98  | 1.76 | 2.01 | 24.69  |
| 1989           | 2.45 | 2.27 | 2.42 | 1.60 | 9.34  | 4.16 | 1.99 | 2.21  | 0.27 | 0.91  | 0.32 | 0.54 | 28.48  |
| 1990           | 2.72 | 2.80 | 5.07 | 3.11 | 6.12  | 0.97 | 0.69 | 1.05  | 6.57 | 4.48  | 3.50 | 1.35 | 38.43  |
| 1991           | 3.13 | 1.43 | 0.93 | 2.68 | 5.89  | 3.16 | 3.65 | 7.21  | 3.81 | 3.58  | 1.68 | 8.44 | 45.59  |
| 1992           | 4.49 | 6.29 | 3.57 | 1.27 | 6.36  | 2.66 | 2.39 | 0.49  | 2.22 | 1.51  | 4.05 | 3.31 | 38.61  |
| 1993           | 2.45 | 3.84 | 4.31 | 3.63 | 2.06  | 2.15 | 0.00 | 0.81  | 4.44 | 5.50  | 2.11 | 1.48 | 32.78  |
| 1994           | 1.52 | 3.32 | 2.23 | 2.78 | 6.66  | 1.97 | 0.31 | 1.17  | 0.34 | 5.40  | 3.98 | 5.03 | 34.71  |
| 1995           | 1.38 | 0.60 | 3.67 | 7.18 | 7.82  | 2.35 | 4.02 | 6.04  | 6.11 | 0.12  | 1.57 | 1.01 | 41.87  |
| 1996           | 0.86 | 0.20 | 0.93 | 2.74 | 1.20  | 2.28 | 2.64 | 6.27  | 1.82 | 0.89  | 4.93 | 2.51 | 27.27  |
| 1997           | 2.50 | 7.91 | 3.77 | 5.46 | 3.51  | 2.71 | 0.73 | 1.74  | 0.49 | 2.12  | 2.52 | 9.81 | 43.27  |
| 1998           | 6.10 | 4.04 | 2.38 | 1.31 | 0.55  | 1.24 | 0.18 | 0.62  | 4.92 | 6.61  | 3.50 | 4.08 | 35.53  |
| 1999           | 2.30 | 0.07 | 3.15 | 2.04 | 3.14  | 0.51 | 3.75 | T     | 0.51 | 1.90  | 0.29 | 2.82 | 20.48  |
| 2000           | 2.05 | 4.54 | 1.60 | 2.82 | 4.95  | 7.60 | 0.82 | 0.05  | 1.11 | 4.57  | 7.76 | 2.65 | 40.52  |
| 2001           | 2.90 | 2.53 | 4.45 | 0.66 | 3.54  | 1.76 | 0.24 | 4.85  | 2.22 | 2.89  | 5.63 | 4.03 | 35.70  |
| 2002           | 0.96 | 1.68 | 2.15 | 1.29 | 3.25  | 2.77 | 2.39 | 0.99  | 3.01 | 9.00  | 1.35 | 7.63 | 36.47  |
| 2003           | 0.57 | 2.56 | 1.35 | 0.94 | 2.77  | 4.58 | 2.75 | 2.49  | 4.23 | 3.88  | 1.37 | 0.49 | 27.98  |
| 2004           | 4.06 | 5.23 | 2.30 | 8.46 | 3.86  | 7.91 | 4.97 | 0.53  | 0.80 | 10.34 | 9.72 | 1.30 | 59.48  |
| 2005           | 3.30 | 3.34 | 1.26 | 2.04 | 3.64  | 1.37 | 1.07 | 4.83  | 0.57 | 0.89  | 0.51 | 0.43 | 23.25  |
| 2006           | 2.02 | 1.83 | 3.27 | 2.46 | 2.20  | 2.52 | 0.33 | 0.06  | 1.24 | 4.04  | 1.07 | 2.82 | 23.86  |
| 2007           | 3.98 | 0.55 | 9.76 | 1.16 | 13.99 | 8.76 | 2.24 | 0.48  | 3.79 | 0.76  | 1.78 | 0.79 | 48.04  |
| 2008           | 0.67 | 1.22 | 5.00 | 5.20 | 4.66  | 0.18 | 0.66 | 10.33 | 0.61 | 3.90  | 0.43 | 0.68 | 33.54  |
| 2009           | 0.64 | 1.35 | 4.91 | 4.54 | 1.37  | 0.73 | 2.80 | 0.01  | 8.24 | 9.71  | 1.69 | 1.54 | 37.53  |
| 2010           | 5.29 | 3.47 | 4.63 | 4.03 | 0.89  | 5.72 | 3.35 | 0.42  | 9.49 | 0.99  | 1.05 | 0.77 | 40.10  |
| 2011           | 3.70 | 1.82 | 0.15 | 1.87 | 2.14  | 1.26 | 0.09 | 0.08  | 2.97 | 6.20  | 2.39 | 4.97 | 27.64  |
| 2012           | 4.24 | 2.80 | 8.33 | 1.66 | 2.80  | 1.81 | 3.52 | 1.68  | 4.63 | 0.06  | T    | 0.81 | 32.34  |
| 2013           | 5.05 | 2.10 | 1.83 | 1.75 | 3.36  | 1.62 | 5.50 | 0.22  | 5.43 | 7.30  | 2.39 | 1.34 | 37.89  |
| POR=<br>84 YRS | 2.17 | 2.42 | 2.65 | 3.27 | 4.44  | 2.95 | 1.92 | 1.83  | 3.31 | 3.22  | 2.48 | 2.43 | 33.09  |

WBAN : 13959

**AVERAGE TEMPERATURE (°F) 2013 WACO (KACT)**

| YEAR           | JAN  | FEB  | MAR  | APR  | MAY  | JUN  | JUL  | AUG  | SEP  | OCT  | NOV  | DEC  | ANNUAL |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| 1984           | 41.8 | 51.5 | 58.8 | 65.5 | 76.2 | 82.4 | 86.0 | 86.6 | 76.6 | 69.1 | 56.0 | 54.9 | 67.1   |
| 1985           | 40.4 | 46.2 | 61.5 | 68.4 | 76.8 | 82.1 | 85.3 | 87.4 | 77.5 | 69.4 | 59.7 | 44.9 | 66.6   |
| 1986           | 50.5 | 53.0 | 60.8 | 69.0 | 73.5 | 81.5 | 87.5 | 84.6 | 83.1 | 67.2 | 55.1 | 47.3 | 67.8   |
| 1987           | 45.9 | 51.9 | 55.3 | 64.8 | 75.3 | 80.4 | 84.4 | 87.3 | 77.3 | 67.7 | 57.0 | 49.4 | 66.4   |
| 1988           | 44.2 | 49.4 | 57.9 | 66.6 | 73.6 | 79.8 | 86.0 | 88.2 | 80.2 | 68.5 | 60.8 | 50.8 | 67.2   |
| 1989           | 51.7 | 44.8 | 58.3 | 68.2 | 76.5 | 78.9 | 84.2 | 83.9 | 75.6 | 70.4 | 59.6 | 40.5 | 66.1   |
| 1990           | 54.0 | 54.9 | 60.0 | 66.8 | 75.7 | 86.3 | 84.8 | 87.0 | 80.6 | 67.6 | 61.5 | 47.0 | 68.9   |
| 1991           | 44.3 | 53.8 | 60.7 | 69.3 | 75.8 | 81.4 | 85.3 | 83.5 | 76.7 | 69.9 | 53.9 | 52.2 | 67.2   |
| 1992           | 48.6 | 55.0 | 61.2 | 67.3 | 72.4 | 81.4 | 86.3 | 81.5 | 80.2 | 70.9 | 54.2 | 51.2 | 67.5   |
| 1993           | 46.4 | 50.4 | 57.0 | 63.8 | 72.1 | 82.1 | 85.7 | 86.8 | 78.0 | 64.6 | 51.5 | 49.7 | 65.7   |
| 1994           | 46.1 | 50.2 | 59.3 | 66.1 | 72.0 | 83.1 | 85.9 | 84.4 | 76.6 | 68.3 | 59.2 | 50.4 | 66.8   |
| 1995           | 49.7 | 52.6 | 56.5 | 64.6 | 73.1 | 77.7 | 84.1 | 84.1 | 76.7 | 66.9 | 55.3 | 50.5 | 66.0   |
| 1996           | 44.6 | 53.8 | 54.0 | 65.3 | 80.6 | 82.3 | 87.1 | 83.4 | 74.8 | 67.4 | 58.1 | 50.8 | 66.9   |
| 1997           | 45.2 | 49.9 | 58.8 | 60.6 | 71.2 | 79.3 | 85.1 | 84.0 | 81.2 | 68.4 | 52.7 | 46.7 | 65.3   |
| 1998           | 51.6 | 51.5 | 56.2 | 65.0 | 78.6 | 86.2 | 90.4 | 86.3 | 82.1 | 70.6 | 59.5 | 48.4 | 68.9   |
| 1999           | 51.8 | 57.7 | 57.3 | 68.6 | 73.8 | 82.9 | 85.1 | 88.8 | 79.6 | 69.2 | 62.0 | 51.4 | 69.0   |
| 2000           | 51.4 | 57.8 | 62.0 | 66.5 | 76.7 | 80.2 | 85.9 | 87.7 | 79.7 | 71.1 | 52.5 | 41.8 | 67.8   |
| 2001           | 45.2 | 53.1 | 53.1 | 69.3 | 75.6 | 81.2 | 88.1 | 86.5 | 76.3 | 65.9 | 60.6 | 51.0 | 67.2   |
| 2002           | 48.8 | 47.5 | 56.7 | 70.6 | 74.5 | 80.5 | 83.8 | 85.2 | 79.5 | 66.5 | 55.4 | 49.6 | 66.6   |
| 2003           | 46.6 | 47.6 | 57.5 | 67.9 | 76.4 | 79.6 | 84.9 | 85.0 | 75.6 | 69.3 | 60.8 | 50.8 | 66.8   |
| 2004           | 50.2 | 47.2 | 63.0 | 66.7 | 75.0 | 79.4 | 82.6 | 81.6 | 77.8 | 73.8 | 58.0 | 49.8 | 67.1   |
| 2005           | 51.3 | 53.5 | 58.0 | 66.1 | 73.4 | 82.4 | 85.1 | 84.9 | 82.8 | 68.8 | 61.5 | 48.1 | 68.0   |
| 2006           | 55.3 | 50.7 | 62.5 | 72.8 | 75.8 | 81.9 | 86.5 | 88.8 | 79.2 | 69.3 | 58.1 | 50.6 | 69.3   |
| 2007           | 43.2 | 50.5 | 63.4 | 62.6 | 73.5 | 80.3 | 81.2 | 85.4 | 80.1 | 70.4 | 60.1 | 49.6 | 66.7   |
| 2008           | 45.9 | 53.9 | 58.8 | 65.8 | 75.4 | 84.0 | 86.3 | 84.4 | 75.4 | 67.1 | 58.5 | 48.6 | 67.0   |
| 2009           | 49.2 | 56.8 | 60.9 | 65.0 | 75.1 | 85.7 | 87.6 | 87.7 | 77.3 | 65.4 | 59.5 | 44.3 | 67.9   |
| 2010           | 44.1 | 43.7 | 56.3 | 66.8 | 77.2 | 85.4 | 86.4 | 89.2 | 80.0 | 68.6 | 59.2 | 51.1 | 67.3   |
| 2011           | 45.1 | 51.2 | 62.4 | 72.5 | 75.6 | 87.4 | 91.1 | 92.9 | 80.9 | 68.2 | 58.3 | 48.3 | 69.5   |
| 2012           | 50.5 | 52.9 | 63.0 | 71.0 | 77.3 | 84.2 | 86.3 | 86.5 | 78.5 | 66.8 | 58.8 | 52.3 | 69.0   |
| 2013           | 49.2 | 53.1 | 56.5 | 63.5 | 72.5 | 83.2 | 84.0 | 85.5 | 81.3 | 67.8 | 53.1 | 43.8 | 66.1   |
| POR=<br>84 YRS | 46.9 | 50.1 | 58.3 | 66.4 | 74.5 | 81.3 | 85.6 | 85.7 | 78.4 | 68.9 | 56.8 | 49.2 | 66.8   |

**HEATING DEGREE DAYS (base 65°F) 2013 WACO (KACT)**

| YEAR    | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | TOTAL |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1984-85 | 0   | 0   | 23  | 41  | 293 | 319 | 752 | 527 | 157 | 41  | 0   | 0   | 2153  |
| 1985-86 | 0   | 0   | 14  | 38  | 207 | 619 | 443 | 353 | 151 | 39  | 3   | 0   | 1867  |
| 1986-87 | 0   | 0   | 0   | 50  | 305 | 540 | 583 | 360 | 308 | 111 | 0   | 0   | 2257  |
| 1987-88 | 0   | 0   | 0   | 44  | 270 | 480 | 644 | 451 | 256 | 49  | 0   | 0   | 2194  |
| 1988-89 | 0   | 0   | 3   | 20  | 188 | 434 | 403 | 562 | 255 | 82  | 0   | 0   | 1947  |
| 1989-90 | 0   | 0   | 12  | 67  | 227 | 753 | 341 | 287 | 195 | 64  | 7   | 0   | 1953  |
| 1990-91 | 0   | 0   | 0   | 90  | 157 | 555 | 633 | 312 | 177 | 15  | 7   | 0   | 1946  |
| 1991-92 | 0   | 0   | 10  | 57  | 350 | 401 | 502 | 283 | 144 | 59  | 10  | 0   | 1816  |
| 1992-93 | 0   | 0   | 1   | 7   | 331 | 435 | 570 | 405 | 262 | 111 | 6   | 0   | 2128  |
| 1993-94 | 0   | 0   | 0   | 155 | 419 | 477 | 581 | 418 | 222 | 80  | 27  | 0   | 2379  |
| 1994-95 | 0   | 0   | 6   | 59  | 204 | 448 | 477 | 347 | 292 | 85  | 7   | 0   | 1925  |
| 1995-96 | 0   | 0   | 18  | 41  | 292 | 464 | 623 | 359 | 366 | 97  | 0   | 0   | 2260  |
| 1996-97 | 0   | 0   | 17  | 46  | 240 | 442 | 611 | 417 | 205 | 156 | 15  | 0   | 2149  |
| 1997-98 | 0   | 0   | 0   | 79  | 377 | 559 | 411 | 374 | 315 | 65  | 0   | 0   | 2180  |
| 1998-99 | 0   | 0   | 0   | 31  | 184 | 526 | 407 | 227 | 233 | 45  | 1   | 0   | 1654  |
| 1999-00 | 0   | 0   | 2   | 49  | 120 | 426 | 427 | 235 | 143 | 72  | 0   | 0   | 1474  |
| 2000-01 | 0   | 0   | 14  | 45  | 387 | 713 | 608 | 339 | 367 | 25  | 0   | 0   | 2498  |
| 2001-02 | 0   | 0   | 3   | 65  | 174 | 446 | 502 | 483 | 276 | 39  | 4   | 0   | 1992  |
| 2002-03 | 0   | 0   | 0   | 81  | 295 | 468 | 562 | 481 | 240 | 50  | 0   | 0   | 2177  |
| 2003-04 | 0   | 0   | 0   | 18  | 195 | 436 | 462 | 511 | 112 | 54  | 12  | 0   | 1800  |
| 2004-05 | 0   | 0   | 0   | 3   | 208 | 468 | 432 | 330 | 229 | 51  | 14  | 0   | 1735  |
| 2005-06 | 0   | 0   | 0   | 62  | 193 | 526 | 301 | 399 | 149 | 10  | 0   | 0   | 1640  |
| 2006-07 | 0   | 0   | 0   | 51  | 235 | 453 | 668 | 407 | 123 | 134 | 0   | 0   | 2071  |
| 2007-08 | 0   | 0   | 0   | 61  | 210 | 487 | 594 | 327 | 223 | 75  | 5   | 0   | 1982  |
| 2008-09 | 0   | 0   | 0   | 55  | 219 | 510 | 499 | 252 | 199 | 94  | 0   | 0   | 1828  |
| 2009-10 | 0   | 0   | 2   | 81  | 178 | 635 | 642 | 591 | 268 | 37  | 0   | 0   | 2434  |
| 2010-11 | 0   | 0   | 0   | 34  | 235 | 433 | 609 | 414 | 168 | 30  | 25  | 0   | 1948  |
| 2011-12 | 0   | 0   | 0   | 66  | 249 | 511 | 440 | 350 | 132 | 10  | 0   | 0   | 1758  |
| 2012-13 | 0   | 0   | 0   | 110 | 216 | 415 | 493 | 332 | 282 | 134 | 41  | 0   | 2023  |
| 2013-   | 0   | 0   | 0   | 49  | 365 | 652 |     |     |     |     |     |     |       |

WBAN : 13959

**COOLING DEGREE DAYS (base 65°F) 2013 WACO (KACT)**

| YEAR | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1984 | 0   | 4   | 39  | 95  | 360 | 529 | 658 | 677 | 379 | 174 | 28  | 14  | 2957  |
| 1985 | 0   | 7   | 56  | 150 | 370 | 518 | 637 | 699 | 397 | 177 | 55  | 3   | 3069  |
| 1986 | 1   | 24  | 27  | 165 | 273 | 502 | 703 | 616 | 551 | 124 | 16  | 0   | 3002  |
| 1987 | 0   | 0   | 14  | 112 | 327 | 469 | 609 | 697 | 374 | 134 | 35  | 3   | 2774  |
| 1988 | 5   | 5   | 43  | 105 | 273 | 451 | 655 | 726 | 465 | 135 | 68  | 2   | 2933  |
| 1989 | 0   | 2   | 56  | 186 | 367 | 427 | 601 | 594 | 335 | 244 | 72  | 0   | 2884  |
| 1990 | 6   | 9   | 49  | 125 | 344 | 649 | 619 | 687 | 474 | 177 | 59  | 5   | 3203  |
| 1991 | 0   | 4   | 49  | 150 | 351 | 500 | 638 | 581 | 366 | 219 | 25  | 11  | 2894  |
| 1992 | 0   | 1   | 33  | 137 | 247 | 497 | 666 | 518 | 465 | 194 | 14  | 13  | 2785  |
| 1993 | 0   | 0   | 24  | 82  | 234 | 519 | 649 | 681 | 398 | 149 | 21  | 5   | 2762  |
| 1994 | 2   | 9   | 50  | 119 | 248 | 548 | 652 | 608 | 362 | 167 | 37  | 3   | 2805  |
| 1995 | 10  | 7   | 38  | 83  | 268 | 391 | 600 | 601 | 373 | 111 | 11  | 22  | 2515  |
| 1996 | 0   | 43  | 32  | 115 | 488 | 525 | 690 | 577 | 318 | 131 | 41  | 6   | 2966  |
| 1997 | 7   | 0   | 18  | 27  | 211 | 434 | 628 | 596 | 491 | 189 | 14  | 0   | 2615  |
| 1998 | 3   | 0   | 49  | 73  | 427 | 645 | 790 | 668 | 521 | 214 | 25  | 18  | 3433  |
| 1999 | 5   | 30  | 2   | 159 | 282 | 545 | 628 | 745 | 449 | 187 | 39  | 12  | 3083  |
| 2000 | 9   | 33  | 57  | 124 | 370 | 460 | 658 | 710 | 459 | 242 | 20  | 0   | 3142  |
| 2001 | 0   | 9   | 2   | 161 | 335 | 496 | 724 | 673 | 348 | 100 | 49  | 19  | 2916  |
| 2002 | 10  | 2   | 29  | 215 | 307 | 472 | 589 | 634 | 442 | 134 | 14  | 0   | 2848  |
| 2003 | 0   | 1   | 15  | 143 | 359 | 446 | 624 | 627 | 327 | 157 | 75  | 3   | 2777  |
| 2004 | 11  | 0   | 57  | 112 | 328 | 439 | 554 | 522 | 390 | 283 | 5   | 4   | 2705  |
| 2005 | 17  | 14  | 19  | 89  | 281 | 528 | 629 | 621 | 537 | 187 | 94  | 9   | 3025  |
| 2006 | 9   | 6   | 80  | 253 | 343 | 517 | 677 | 729 | 433 | 190 | 36  | 13  | 3286  |
| 2007 | 0   | 6   | 75  | 67  | 271 | 467 | 512 | 641 | 460 | 236 | 68  | 15  | 2818  |
| 2008 | 9   | 12  | 39  | 106 | 336 | 578 | 672 | 608 | 320 | 129 | 32  | 8   | 2849  |
| 2009 | 16  | 27  | 79  | 102 | 320 | 629 | 706 | 711 | 380 | 98  | 22  | 0   | 3090  |
| 2010 | 0   | 0   | 7   | 96  | 386 | 619 | 669 | 757 | 456 | 150 | 66  | 9   | 3215  |
| 2011 | 0   | 32  | 95  | 262 | 363 | 677 | 816 | 871 | 483 | 171 | 57  | 0   | 3827  |
| 2012 | 1   | 5   | 78  | 195 | 386 | 581 | 666 | 675 | 411 | 173 | 41  | 29  | 3241  |
| 2013 | 11  | 6   | 26  | 95  | 279 | 552 | 598 | 644 | 496 | 145 | 18  | 0   | 2870  |

**SNOWFALL (inches) 2013 WACO (KACT)**

| YEAR           | JUL | AUG | SEP | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | TOTAL |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| 1984-85        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.9 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9   |
| 1985-86        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | T   | 0.0 | 0.0 | 0.0 | 0.0 | T     |
| 1986-87        | 0.0 | 0.0 | 0.0 | 0.0 | T   | T   | T   | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 1.0   |
| 1987-88        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5   |
| 1988-89        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.8 | 0.0 | T   | 0.0 | 1.0   |
| 1989-90        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | T   | 0.0 | 0.0 | 0.0 | 0.0 | T     |
| 1990-91        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | T   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T     |
| 1991-92        | 0.0 | T   | 0.0 | T   | 0.0 | 0.0 | T   | 0.0 | T   | T   | 0.0 | 0.0 | T     |
| 1992-93        | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | T   | 0.0 | T   | T   | 0.0 | 0.0 | T     |
| 1993-94        | 0.0 | 0.0 | 0.0 | T   | 2.4 | T   | T   | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 3.8   |
| 1994-95        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | T   | 0.0 | 0.0 | 0.0 | 0.0 | T     |
| 1995-96        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | 0.0 | 0.0 | 0.0 | T     |
| 1996-97        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | T   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T     |
| 1997-98        | 0.0 | 0.0 | 0.0 | 0.0 | T   | T   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T     |
| 1998-99        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T     |
| 1999-00        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T     |
| 2000-01        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | T   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6   |
| 2001-02        | 0.0 | 0.0 | 0.0 | 0.0 | T   | T   | T   | T   | T   | 0.0 | 0.0 | 0.0 | T     |
| 2002-03        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5   |
| 2003-04        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3   |
| 2004-05        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T     |
| 2005-06        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T     |
| 2006-07        | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | T   | 0.0 | 0.0 | 3.5 | 0.0 | 0.0 | 3.5   |
| 2007-08        | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | T   | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 1.1   |
| 2008-09        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T     |
| 2009-10        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7   |
| 2010-11        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0   |
| 2011-12        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | 0.0 | 0.0 | 0.0 | T     |
| 2012-13        | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | T     |
| 2013-          | 0.0 | 0.0 | 0.0 | 0.0 | T   | T   |     |     |     |     |     |     |       |
| POR=<br>81 YRS | 0.0 | T   | 0.1 | T   | 0.1 | 0.1 | 0.6 | 0.4 | 0.1 | T   | T   | 0.0 | 1.4   |

WBAN : 13959

**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/>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<br/>CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.</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</p> | <p>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 EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.<br/>STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED STATION HISTORY INFORMATION GO TO "Historical Observing Metadata Repository", URL IS:<br/><a href="http://www.ncdc.noaa.gov/homr/">http://www.ncdc.noaa.gov/homr/</a><br/>SNOWFALL STOPPED MONTH &amp; YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</p> <p><b>NOTE:</b><br/>The "Period of Record:(POR)" for all "averages" is based on "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p> |
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# 2013 WACO TEXAS (KACT)

One of the major cities of Texas, Waco is located in the rich agricultural region of the Brazos River Valley in North Central Texas. The city lies on the edge of the gently rolling Blackland Prairies. To the west lies the rolling to hilly Grand Prairie. Waco is a commercial hub with an economy based on industry, education and agriculture. Baylor University, founded in 1845, is located here. Regional agriculture includes chiefly cattle, poultry, sorghum, cotton and corn. Soils are black waxy, loam and sandy types. Lake Waco, a reservoir of 7,260 surface acres, lies within the Waco city limits, with the north shoreline approximately 0.8 mile south of the Municipal Airport.

The climate of Waco is humid subtropical with hot summers. It is a continental type climate characterized by extreme variations in temperature. Tropical maritime air masses predominate throughout the late spring, summer and early fall months, while Polar air masses frequent the area in winter. In an average year, April and May are the wettest months, while the July-August period is the driest. Most warm season rainfall occurs from thunderstorm activity. Consequently, considerable spatial variation in amounts occur.

Winters are mild. Cold fronts moving down from the High Plains often are accompanied by strong, gusty, northerly winds and sharp drops in temperature. Cold spells are of short duration, rarely lasting longer than 2 or 3 days before a rapid warming occurs. Winter precipitation is closely associated with frontal activity, and may fall as rain, freezing rain, sleet or snow. During most years, snowfall is of little or no consequence.

Daytime temperatures are hot in summer, particularly in July and August. The highest temperatures are associated with fair skies, light winds, and comparatively low humidities. There is little variety in the day-to-day weather during July and August. Air conditioning is recommended for maximum comfort indoors or while traveling.

The spring and fall seasons are very pleasant at Waco. Temperatures are comfortable. Cloudiness and showers are more frequent in the spring than in the fall. The average first occurrence of 32 degrees Fahrenheit is late November and the average last occurrence is in mid March.

# Station History

WACO, TX

| NAME                   | Begin Date | End Date   | Latitude | Longitude | Elevation Feet | Relocation | Platform                       |
|------------------------|------------|------------|----------|-----------|----------------|------------|--------------------------------|
| WACO BLACKLAND FIELD   | 1945-01-01 | 1946-09-01 | 31° 37'  | -97° 13'  |                |            | AIRWAYS,UPPERAIR               |
| WACO REGIONAL AP       | 1993-07-01 | 2003-10-31 | 31° 36'  | -97° 13'  | 500            |            | ASOS,COOP                      |
| WACO MUNICIPAL AP      | 1952-03-01 | 1952-04-30 | 31° 37'  | -97° 13'  | 515            |            | AIRWAYS,COOP,MILITARY,UPPERAIR |
| WACO MUNICIPAL AP      | 1952-04-30 | 1953-05-31 | 31° 37'  | -97° 13'  | 515            |            | AIRWAYS,COOP,UPPERAIR          |
| WACO RICH FIELD        | 1929-03-11 | 1943-02-10 | 31° 33'  | -97° 10'  |                | 2 MI W     | AIRWAYS                        |
| WACO BLACKLAND FIELD   | 1943-02-10 | 1945-01-01 | 31° 37'  | -97° 13'  |                | 5 MI NNW   | AIRWAYS                        |
| WACO MUNICIPAL AP      | 1951-04-13 | 1952-03-01 | 31° 37'  | -97° 13'  | 515            | 216 FT N   | AIRWAYS,COOP,UPPERAIR          |
| WACO REGIONAL AP       | 2003-10-31 | Present    | 31° 37'  | -97° 13'  | 500            |            | ASOS,COOP                      |
| WACO BLACKLAND FIELD   | 1951-01-01 | 1951-04-13 | 31° 37'  | -97° 13'  | 515            |            | AIRWAYS,COOP,UPPERAIR          |
| WACO MUNICIPAL AP      | 1973-01-01 | 1973-03-19 | 31° 37'  | -97° 13'  | 501            |            | COOP,WXSVC                     |
| WACO MADISON COOPER AP | 1973-03-19 | 1989-04-25 | 31° 37'  | -97° 13'  | 501            |            | COOP,WXSVC                     |
| WACO BLACKLAND FIELD   | 1946-09-01 | 1951-01-01 | 31° 37'  | -97° 13'  | 500            |            | AIRWAYS,COOP,UPPERAIR          |
| WACO MUNICIPAL AP      | 1953-05-31 | 1973-01-01 | 31° 37'  | -97° 13'  | 515            |            | AIRWAYS,COOP                   |
| WACO MADISON COOPER AP | 1989-04-25 | 1993-07-01 | 31° 37'  | -97° 13'  | 500            |            | COOP,WXSVC                     |

# Element History

| Element    | Begin Date | End Date   | Frequency | Time Of Observation | Equipment * | Equipment * Modifications | Equipment Exposure |
|------------|------------|------------|-----------|---------------------|-------------|---------------------------|--------------------|
| PRECIP     | 1963-09-01 | 1989-04-25 | HOURLY    | 2400                | UNIV        | RCRD                      |                    |
| TEMP       | 1963-09-01 | 1989-04-25 | DAILY     | 2400                |             |                           |                    |
| TEMP       | 1993-07-01 | Present    | DAILY     | 2400                | HYGR        |                           |                    |
| PRECIP     | 1929-03-11 | 1963-09-01 | DAILY     | 2400                | UNIV        | RCRD                      |                    |
| PRECIP     | 1963-09-01 | 1989-04-25 | DAILY     | 2400                | UNIV        | RCRD                      |                    |
| MAX/MINTEM | 1993-07-01 | 2003-10-31 | DAILY     | 0700                | PALMER      |                           |                    |
| PRECIP     | 1993-07-01 | Present    | HOURLY    | 2400                | TB          | RCRD                      |                    |
| MAX/MINTEM | 1929-03-11 | 1963-09-01 | DAILY     | 2400                | PALMER      |                           |                    |
| PRECIP     | 1989-04-25 | 1993-07-01 | HOURLY    | 2400                | UNIV        | RCRD                      |                    |
| TEMP       | 1929-03-11 | 1963-09-01 | DAILY     | 2400                |             |                           |                    |
| MAX/MINTEM | 1963-09-01 | 1989-04-25 | DAILY     | 2400                | PALMER      |                           |                    |
| TEMP       | 1989-04-25 | 1993-07-01 | DAILY     | 2400                | HYGR        |                           |                    |
| PRECIP     | 1993-07-01 | Present    | DAILY     | 2400                | TB          | RCRD                      |                    |
| PRECIP     | 1989-04-25 | 1993-07-01 | DAILY     | 2400                | UNIV        | RCRD                      |                    |
| MAX/MINTEM | 1989-04-25 | 1993-07-01 | DAILY     | 2400                | PALMER      |                           |                    |

\* For explanation of codes and abbreviations see Station Metadata link below.

Other Station Information can be found at:

ASOS Implementation by NWS: <http://www.nws.noaa.gov/ops2/Surface/asosimplementation.htm>

Station Metadata website: <http://www.ncdc.noaa.gov/homr>

INQUIRES/COMMENTS CALL: (828) 271-4800, option 2

Fax Number : (828) 271-4876

TDD : (828) 271-4010

Email : [ncdc.orders@noaa.gov](mailto:ncdc.orders@noaa.gov)

NOAA/National Climatic Data Center

Attn: User Engagement & Services Branch

151 Patton Avenue

Asheville, NC 28801-5001

Visit our Web Site for other weather data: [www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)