# Climatography of the United States No. 20 1971-2000

National Climatic Data Center Federal Building 151 Patton Avenue Asheville, North Carolina 28801 www.ncdc.noaa.gov

COOP ID: 418692

Lon: 102°05W

**Station: STRATFORD, TX** 

Climate Division: TX 1 NWS Call Sign:

Temperature (°F) Degree Days (1) Mean (1) Mean Number of Days (3) **Extremes** Base Temp 65 Max Max Max Max Min Min Highest Lowest Daily Daily Highest Lowest Month(1) Month(1) Cooling >= >= >= <= <= <= Month Mean Year Day Year Year Day Year Heating Max Min Daily(2) Daily(2) Mean Mean 100 90 50 32 32 0 46.7 18.5 32.6 82 1980 14 39.8 1986 -19 1959 4 22.9 1979 1004 0 .0 .0 15.5 5.2 30.3 1.2 Jan 52.2 22.6 37.4 86 1979 15 44.4 1976 -20+1933 9 27.9 1978 774 0 .0 .0 17.1 3.4 25.5 .8 Feb Mar 60.0 28.7 44.4 91 +1971 28 49.1 1986 -9 1948 6 39.6 1998 640 0 .0 .1 24.3 1.1 19.8 0. 37.0 97 1973 8 Apr 68.7 52.9 1965 23 59.0 1981 13 1979 4 46.1 374 .0 .4 27.9 .1 8.2 0. May 76.8 47.2 62.0 103 1974 29 67.9 1996 26 1954 3 57.8 1980 145 52 .2 2.9 30.7 .0 .5 .0 57.3 1953 7 86.4 71.9 108 +24 76.6 1994 40 +1915 66.4 1989 20 225 1.7 12.4 30.0 .0 .0 .0 Jun Jul 91.1 62.4 76.8 107 +1951 21 1980 48 1990 14 73.9 1972 0 364 2.8 20.6 31.0 0. 81.6 .0 .0 1992 3 89.0 61.2 75.1 105 1959 4 80.3 2000 41 1942 23 70.9 315 .8 17.3 31.0 .0 .0 .0 Aug 3 57 Sep 81.7 52.7 67.2 105 1939 73.5 1998 26 1985 30 61.0 1974 123 .3 7.0 29.7 .0 .3 .0 2 8 Oct 71.4 40.3 55.9 101 1911 60.9 1979 1993 30 51.2 1976 291 6 .0 1.0 29.4 .1 4.3 .0 57.7 27.9 42.8 88+ 1980 9 49.2 1999 -10 1976 28 34.5 1972 0 .0 .0 21.5 21.2 Nov 666 .8 .1 Dec 48.0 20.6 34.3 83 1939 6 41.1 1980 -12 1915 28 24.4 1983 953 0 .0 .0 15.3 4.4 29.1 1.1 Feb Jun Jul Jan 39.7 54.4 108 +1953 24 1980 -20+ 1933 22.9 1979 4927 1093 5.8 61.7 303.4 15.1 139.2 3.2 69.1 81.6 Ann

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Issue Date: February 2004 280-A

Elevation: 3,691 Feet Lat: 36°21N

<sup>+</sup> Also occurred on an earlier date(s)

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1911-2001

<sup>(3)</sup> Derived from 1971-2000 serially complete daily data

# Climatography of the United States No. 20 1971-2000

National Climatic Data Center Federal Building 151 Patton Avenue Asheville, North Carolina 28801 www.ncdc.noaa.gov

**COOP ID: 418692** 

Station: STRATFORD, TX

Climate Division: TX 1 NWS Call Sign: Elevation: 3,691 Feet Lat: 36°21N Lon: 102°05W

|       |       |   |                     |             |     |                       |             |                      |             | Pı         | recipi     | tation     | (incl      | nes)   |       |       |       |       |       |       |       |       |       |       |
|-------|-------|---|---------------------|-------------|-----|-----------------------|-------------|----------------------|-------------|------------|------------|------------|------------|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|       |       | Means/ Medians(1)  Medians(1)  Medians(1)  Medians(1)  Medians(1)  Medians(1)  Medians(1)  Medians(1)  Medians(1) |                     |             |     |                       |             |                      |             |            | ean N of D | ays (3     | )          | Precipitation Probabilities (1)  Probability that the monthly/annual precipitation will be equal to or less than the indicated amount  Monthly/Annual Precipitation vs Probability Levels  These values were determined from the incomplete gamma distribution |       |       |       |       |       |       |       |       |       |       |
| Month | Mean  | Med-<br>ian   | Highest<br>Daily(2) | Year        | Day | Highest<br>Monthly(1) | Year        | Lowest<br>Monthly(1) | Year        | >=<br>0.01 | >=<br>0.10 | >=<br>0.50 | >=<br>1.00 | .05  | .10   | .20   | .30   | .40   | .50   | .60   | .70   | .80   | .90   | .95   |
| Jan   | .48   | .41   | 1.38                | 1990        | 19  | 1.38                  | 1990        | .00+                 | 1998        | 2.3        | 1.3        | .2         | @          | .00  | .00   | .09   | .18   | .27   | .36   | .47   | .61   | .80   | 1.09  | 1.39  |
| Feb   | .44   | .21   | 1.80                | 1912        | 25  | 1.67                  | 1983        | .00+                 | 1999        | 2.5        | 1.4        | .2         | .0         | .00  | .00   | .01   | .06   | .13   | .22   | .34   | .51   | .75   | 1.18  | 1.63  |
| Mar   | 1.21  | .92   | 1.64                | 1961        | 25  | 5.11                  | 2000        | .00+                 | 1997        | 4.0        | 2.8        | .8         | .2         | .00  | .05   | .21   | .38   | .58   | .82   | 1.11  | 1.47  | 1.99  | 2.87  | 3.75  |
| Apr   | 1.46  | 1.11  | 2.62                | 1939        | 5   | 5.24                  | 1997        | .00                  | 1991        | 3.8        | 2.7        | 1.0        | .3         | .08  | .21   | .43   | .65   | .88   | 1.13  | 1.43  | 1.80  | 2.31  | 3.14  | 3.95  |
| May   | 2.85  | 2.71  | 3.92                | 1972        | 11  | 6.56                  | 1978        | .15                  | 1974        | 6.0        | 4.4        | 1.7        | .9         | .53  | .78   | 1.20  | 1.59  | 1.98  | 2.40  | 2.89  | 3.47  | 4.25  | 5.50  | 6.69  |
| Jun   | 2.26  | 1.84  | 3.30                | 1942        | 8   | 6.79                  | 2000        | .00+                 | 1998        | 5.8        | 4.3        | 1.8        | .5         | .00  | .37   | .82   | 1.18  | 1.53  | 1.91  | 2.33  | 2.82  | 3.49  | 4.56  | 5.57  |
| Jul   | 2.31  | 1.90  | 2.90                | 1963        | 28  | 6.02                  | 1973        | .00                  | 1987        | 5.7        | 4.6        | 1.5        | .5         | .27  | .56   | .95   | 1.28  | 1.61  | 1.97  | 2.37  | 2.85  | 3.48  | 4.49  | 5.45  |
| Aug   | 2.67  | 1.95  | 5.60                | 1992        | 18  | 7.70                  | 1974        | .00                  | 2000        | 5.6        | 4.4        | 1.7        | .8         | .11  | .33   | .72   | 1.11  | 1.53  | 2.01  | 2.57  | 3.28  | 4.25  | 5.86  | 7.44  |
| Sep   | 1.71  | 1.17  | 4.25                | 1985        | 19  | 8.03                  | 1985        | .00+                 | 1998        | 4.3        | 2.9        | 1.2        | .4         | .00  | .09   | .32   | .58   | .86   | 1.19  | 1.59  | 2.10  | 2.81  | 4.01  | 5.20  |
| Oct   | 1.15  | .68   | 3.27                | 1942        | 17  | 5.72                  | 2000        | .00+                 | 1995        | 3.2        | 2.3        | .9         | .2         | .00  | .00   | .04   | .19   | .39   | .64   | .96   | 1.37  | 1.97  | 3.00  | 4.07  |
| Nov   | .79   | .56   | 2.49                | 1971        | 16  | 3.34                  | 1971        | .00+                 | 1999        | 2.7        | 1.7        | .5         | .1         | .00  | .00   | .12   | .24   | .38   | .54   | .73   | .98   | 1.32  | 1.90  | 2.48  |
| Dec   | .56   | .33   | 1.25                | 1944        | 4   | 2.08                  | 1997        | .00+                 | 1989        | 1.9        | 1.4        | .3         | .0         | .00  | .00   | .05   | .16   | .26   | .39   | .53   | .70   | .95   | 1.34  | 1.75  |
| Ann   | 17.89 | 17.69   | 5.60                | Aug<br>1992 | 18  | 8.03                  | Sep<br>1985 | .00+                 | Aug<br>2000 | 47.8       | 34.2       | 11.8       | 3.9        | 13.00  | 13.95 | 15.17 | 16.09 | 16.91 | 17.69 | 18.50 | 19.40 | 20.48 | 22.05 | 23.40 |

<sup>+</sup> Also occurred on an earlier date(s)

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

<sup>#</sup> Denotes amounts of a trace

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>\*\*</sup> Statistics not computed because less than six years out of thirty had measurable precipitation

<sup>(1)</sup> From the 1971-2000 Monthly Normals

<sup>(2)</sup> Derived from station's available digital record: 1911-2001

<sup>(3)</sup> Derived from 1971-2000 serially complete daily data

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**COOP ID: 418692** 

**Station: STRATFORD, TX** 

Climate Division: TX 1 NWS Call Sign: Elevation: 3,691 Feet Lat: 36°21N Lon: 102°05W

|       |                      |                        |                       |                         |                                  |             |       |                                    |              | Snov                              | w (incl     | hes) |   |             |     |     |                         |      |      |        |               |     |         |
|-------|----------------------|------------------------|-----------------------|-------------------------|----------------------------------|-------------|-------|------------------------------------|--------------|-----------------------------------|-------------|------|---|-------------|-----|-----|-------------------------|------|------|--------|---------------|-----|---------|
|       |                      |                        |                       |                         |                                  | Sno         | ow To | tals                               |              |                                   |             |      |   |             |     |     | Mea                     | n Nu | mber | of Day | <b>VS</b> (1) |     |         |
|       | Means/Medians (1)    |                        |                       |                         |                                  |             |       |                                    | Extremes (2) |                                   |             |      |   |             |     |     | Snow Fall >= Thresholds |      |      |        |               |     | n<br>ds |
| Month | Snow<br>Fall<br>Mean | Snow<br>Fall<br>Median | Snow<br>Depth<br>Mean | Snow<br>Depth<br>Median | Highest<br>Daily<br>Snow<br>Fall | Year        | Day   | Highest<br>Monthly<br>Snow<br>Fall | Year         | Highest<br>Daily<br>Snow<br>Depth | Year        | Day  | Highest<br>Monthly<br>Mean<br>Snow<br>Depth | Year        | 0.1 | 1.0 | 3.0                     | 5.0  | 10.0 | 1      | 3             | 5   | 10      |
| Jan   | 4.9                  | 6.0                    | #                     | 0                       | 16.0                             | 1990        | 19    | 16.0                               | 1990         | 8                                 | 1983        | 21   | 1+  | 1983        | 1.5 | 1.2 | .7                      | .4   | @    | 2.6    | 1.1           | .5  | .0      |
| Feb   | 2.7                  | .5                     | #                     | 0                       | 8.0                              | 1983        | 1     | 15.5                               | 1978         | 12                                | 1983        | 4    | 8   | 1983        | 1.2 | 1.0 | .4                      | .2   | .0   | 1.6    | 1.1           | .6  | .1      |
| Mar   | 3.9                  | .5                     | #                     | 0                       | 14.0                             | 1994        | 9     | 17.5                               | 1994         | 5                                 | 1983        | 19   | #+  | 1983        | .9  | .8  | .5                      | .3   | .1   | .4     | .2            | .1  | .0      |
| Apr   | .9                   | .0                     | #                     | 0                       | 5.0                              | 1983        | 5     | 9.0                                | 1983         | 5                                 | 1983        | 5    | #+  | 1998        | .4  | .3  | .1                      | @    | .0   | .3     | .2            | .1  | .0      |
| May   | .5                   | .0                     | #                     | 0                       | 12.0                             | 1978        | 3     | 12.0                               | 1978         | 10                                | 1978        | 3    | 1   | 1978        | .1  | .1  | @                       | @    | @    | .1     | .1            | .1  | .1      |
| Jun   | .0                   | .0                     | 0                     | 0                       | .0                               | 0           | 0     | .0                                 | 0            | 0                                 | 0           | 0    | 0   | 0           | .0  | .0  | .0                      | .0   | .0   | .0     | .0            | .0  | .0      |
| Jul   | .0                   | .0                     | 0                     | 0                       | .0                               | 0           | 0     | .0                                 | 0            | 0                                 | 0           | 0    | 0   | 0           | .0  | .0  | .0                      | .0   | .0   | .0     | .0            | .0  | .0      |
| Aug   | .0                   | .0                     | 0                     | 0                       | .0                               | 0           | 0     | .0                                 | 0            | 0                                 | 0           | 0    | 0   | 0           | .0  | .0  | .0                      | .0   | .0   | .0     | .0            | .0  | .0      |
| Sep   | .0                   | .0                     | #                     | 0                       | .0                               | 0           | 0     | .0                                 | 0            | 2                                 | 1984        | 29   | #   | 1984        | .0  | .0  | .0                      | .0   | .0   | .0     | .0            | .0  | .0      |
| Oct   | .4                   | .0                     | #                     | 0                       | 4.0                              | 1979        | 31    | 5.0                                | 1979         | 2                                 | 1979        | 31   | #+  | 1979        | .1  | .1  | .1                      | .0   | .0   | .1     | .0            | .0  | .0      |
| Nov   | 2.2                  | .3                     | #                     | 0                       | 8.0                              | 1996        | 30    | 12.3                               | 1972         | 7                                 | 1972        | 21   | 1   | 1972        | .9  | .7  | .2                      | .1   | .0   | .9     | .3            | .2  | .0      |
| Dec   | 3.9                  | 4.0                    | #                     | 0                       | 14.0                             | 1997        | 23    | 23.0                               | 1997         | 8                                 | 1996        | 20   | 1+  | 1996        | 1.1 | 1.0 | .5                      | .2   | .1   | 1.4    | .7            | .2  | .0      |
| Ann   | 19.4                 | 11.3                   | N/A                   | N/A                     | 16.0                             | Jan<br>1990 | 19    | 23.0                               | Dec<br>1997  | 12                                | Feb<br>1983 | 4    | 8   | Feb<br>1983 | 6.2 | 5.2 | 2.5                     | 1.2  | .2   | 7.4    | 3.7           | 1.8 | .2      |

<sup>+</sup> Also occurred on an earlier date(s) #Denotes trace amounts

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

<sup>@</sup> Denotes mean number of days greater than 0 but less than .05

<sup>-9/-9.9</sup> represents missing values Annual statistics for Mean/Median snow depths are not appropriate

<sup>(1)</sup> Derived from Snow Climatology and 1971-2000 daily data

<sup>(2)</sup> Derived from 1971-2000 daily data

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**COOP ID: 418692** 

**Station: STRATFORD, TX** 

Climate Division: TX 1 NWS Call Sign

NWS Call Sign: Elevation: 3,691 Feet Lat: 36°21N Lon: 102°05W

|              |   |       |               | Freez        | e Data        |               |              |       |       |  |  |  |  |
|--------------|---|-------|---------------|--------------|---------------|---------------|--------------|-------|-------|--|--|--|--|
|              |   |       | Spri          | ng Freeze D  | ates (Month/  | (Day)         |              |       |       |  |  |  |  |
| Tomn (F)     |   | P     | robability of | later date i | n spring (thr | u Jul 31) tha | n indicated( | (*)   |       |  |  |  |  |
| Temp (F)     | .10   | .20   | .30           | .40          | .50           | .60           | .70          | .80   | .90   |  |  |  |  |
| 36           | 5/17  | 5/12  | 5/09          | 5/06         | 5/03          | 4/30          | 4/28         | 4/24  | 4/20  |  |  |  |  |
| 32           | 5/12  | 5/06  | 5/02          | 4/29         | 4/26          | 4/23          | 4/19         | 4/15  | 4/10  |  |  |  |  |
| 28           | 4/25  | 4/21  | 4/18          | 4/15         | 4/12          | 4/10          | 4/07         | 4/04  | 3/31  |  |  |  |  |
| 24           | 4/15  | 4/10  | 4/06          | 4/02         | 3/30          | 3/27          | 3/24         | 3/20  | 3/14  |  |  |  |  |
| 20           | 4/07  | 4/01  | 3/27          | 3/24         | 3/20          | 3/17          | 3/13         | 3/09  | 3/03  |  |  |  |  |
| 16           | 4/04  | 3/26  | 3/20          | 3/15         | 3/10          | 3/06          | 2/28         | 2/22  | 2/14  |  |  |  |  |
| <u>'</u>     |   | •     | Fal           | l Freeze Da  | tes (Month/D  | ay)           | 1            | II.   | П     |  |  |  |  |
| Town (F)     | Probability of earlier date in fall (beginning Aug 1) than indicated(*) |       |               |              |               |               |              |       |       |  |  |  |  |
| _            | .10   | .20   | .30           | .40          | .50           | .60           | .70          | .80   | .90   |  |  |  |  |
| 36           | 9/23  | 9/28  | 10/01         | 10/04        | 10/07         | 10/10         | 10/13        | 10/16 | 10/21 |  |  |  |  |
| 32           | 10/01   | 10/05 | 10/09         | 10/12        | 10/15         | 10/18         | 10/21        | 10/24 | 10/29 |  |  |  |  |
| 28           | 10/10   | 10/15 | 10/20         | 10/23        | 10/26         | 10/30         | 11/02        | 11/06 | 11/12 |  |  |  |  |
| 24           | 10/27   | 10/31 | 11/03         | 11/06        | 11/08         | 11/11         | 11/13        | 11/16 | 11/21 |  |  |  |  |
| 20           | 10/31   | 11/06 | 11/10         | 11/13        | 11/17         | 11/20         | 11/23        | 11/27 | 12/03 |  |  |  |  |
| 16           | 11/08   | 11/14 | 11/19         | 11/23        | 11/26         | 11/30         | 12/04        | 12/08 | 12/15 |  |  |  |  |
| <del>.</del> |   |       |               | Freeze F     | ree Period    |               | •            |       |       |  |  |  |  |
| Toman (E)    |   |       | Probability   | of longer th | an indicated  | freeze free p | eriod (Days) | )     |       |  |  |  |  |
| remp (r)     | .10   | .20   | .30           | .40          | .50           | .60           | .70          | .80   | .90   |  |  |  |  |
| 36           | 177   | 170   | 165           | 160          | 156           | 152           | 147          | 142   | 135   |  |  |  |  |
| 32           | 190   | 184   | 179           | 175          | 171           | 168           | 164          | 159   | 153   |  |  |  |  |
| 28           | 215   | 209   | 204           | 200          | 196           | 192           | 188          | 184   | 177   |  |  |  |  |
| 24           | 243   | 236   | 231           | 226          | 222           | 218           | 214          | 209   | 202   |  |  |  |  |
| 20           | 267   | 258   | 252           | 246          | 241           | 236           | 230          | 223   | 214   |  |  |  |  |
| 16           | 287   | 278   | 271           | 265          | 260           | 255           | 249          | 242   | 233   |  |  |  |  |

<sup>\*</sup> Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

Complete documentation available from:

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**COOP ID: 418692** 

**Station: STRATFORD, TX** 

Climate Division: TX 1 NWS Call Sign: Elevation: 3,691 Feet Lat: 36°21N Lon: 102°05W

|       | Degree Days to Selected Base Temperatures (°F) |     |     |     |     |        |            |          |     |     |     |     |      |  |  |
|-------|--|-----|-----|-----|-----|--------|------------|----------|-----|-----|-----|-----|------|--|--|
| Base  |  |     |     |     |     | Heatin | g Degree l | Days (1) |     |     |     |     |      |  |  |
| Below | Jan  | Feb | Mar | Apr | May | Jun    | Jul        | Aug      | Sep | Oct | Nov | Dec | Ann  |  |  |
| 65    | 1004   | 774 | 640 | 374 | 145 | 20     | 0          | 3        | 57  | 291 | 666 | 953 | 4927 |  |  |
| 60    | 849  | 634 | 486 | 245 | 65  | 4      | 0          | 0        | 16  | 163 | 518 | 798 | 3778 |  |  |
| 57    | 756  | 550 | 394 | 179 | 35  | 1      | 0          | 0        | 6   | 103 | 433 | 705 | 3162 |  |  |
| 55    | 694  | 497 | 334 | 141 | 21  | 0      | 0          | 0        | 2   | 72  | 379 | 643 | 2783 |  |  |
| 50    | 541  | 367 | 198 | 67  | 5   | 0      | 0          | 0        | 0   | 25  | 254 | 493 | 1950 |  |  |
| 32    | 114  | 57  | 3   | 0   | 0   | 0      | 0          | 0        | 0   | 0   | 21  | 90  | 285  |  |  |

| Base  |     |     |     |     |     | Coolin | g Degree I | Days (1) |      |     |     |     |      |
|-------|-----|-----|-----|-----|-----|--------|------------|----------|------|-----|-----|-----|------|
| Above | Jan | Feb | Mar | Apr | May | Jun    | Jul        | Aug      | Sep  | Oct | Nov | Dec | Ann  |
| 32    | 134 | 207 | 386 | 624 | 931 | 1196   | 1387       | 1335     | 1056 | 739 | 344 | 160 | 8499 |
| 55    | 0   | 4   | 3   | 75  | 239 | 506    | 674        | 622      | 368  | 98  | 12  | 0   | 2601 |
| 57    | 0   | 0   | 1   | 53  | 190 | 447    | 612        | 560      | 311  | 67  | 7   | 0   | 2248 |
| 60    | 0   | 0   | 0   | 29  | 127 | 360    | 519        | 467      | 232  | 33  | 2   | 0   | 1769 |
| 65    | 0   | 0   | 0   | 8   | 52  | 225    | 364        | 315      | 123  | 6   | 0   | 0   | 1093 |
| 70    | 0   | 0   | 0   | 1   | 15  | 119    | 215        | 176      | 51   | 1   | 0   | 0   | 578  |

|       |                                |     |     |     |         |           |          |          |       | Gro | wing | Degre | e Uni | ts (2)                                     |     |         |          |           |          |         |         |      |      |      |
|-------|--------------------------------|-----|-----|-----|---------|-----------|----------|----------|-------|-----|------|-------|-------|--|-----|---------|----------|-----------|----------|---------|---------|------|------|------|
| Base  | Growing Degree Units (Monthly) |     |     |     |         |           |          |          |       |     |      |       |       | Growing Degree Units (Accumulated Monthly) |     |         |          |           |          |         |         |      |      |      |
|       | Jan                            | Feb | Mar | Apr | May     | Jun       | Jul      | Aug      | Sep   | Oct | Nov  | Dec   | Jan   | Feb  | Mar | Apr     | May      | Jun       | Jul      | Aug     | Sep     | Oct  | Nov  | Dec  |
| 40    | 45                             | 103 | 225 | 421 | 712     | 979       | 1158     | 1107     | 837   | 516 | 184  | 63    | 45    | 148  | 373 | 794     | 1506     | 2485      | 3643     | 4750    | 5587    | 6103 | 6287 | 6350 |
| 45    | 17                             | 47  | 129 | 295 | 557     | 829       | 1003     | 952      | 689   | 372 | 102  | 22    | 17    | 64   | 193 | 488     | 1045     | 1874      | 2877     | 3829    | 4518    | 4890 | 4992 | 5014 |
| 50    | 0                              | 14  | 58  | 180 | 411     | 679       | 848      | 797      | 541   | 243 | 44   | 3     | 0     | 14   | 72  | 252     | 663      | 1342      | 2190     | 2987    | 3528    | 3771 | 3815 | 3818 |
| 55    | 0                              | 0   | 18  | 90  | 271     | 530       | 693      | 642      | 399   | 133 | 11   | 0     | 0     | 0  | 18  | 108     | 379      | 909       | 1602     | 2244    | 2643    | 2776 | 2787 | 2787 |
| 60    | 0                              | 0   | 2   | 34  | 148     | 385       | 539      | 487      | 265   | 57  | 0    | 0     | 0     | 0  | 2   | 36      | 184      | 569       | 1108     | 1595    | 1860    | 1917 | 1917 | 1917 |
| Base  |                                |     |     | Gro | wing De | gree Unit | s for Co | rn (Mont | thly) | l . | l .  |       |       |  | Gr  | owing D | egree Ur | its for C | orn (Acc | umulate | d Month | ly)  |      |      |
| 50/86 | 72                             | 122 | 204 | 307 | 449     | 624       | 753      | 723      | 531   | 352 | 167  | 84    | 72    | 194  | 398 | 705     | 1154     | 1778      | 2531     | 3254    | 3785    | 4137 | 4304 | 4388 |

(1) Derived from the 1971-2000 Monthly Normals

(2) Derived from 1971-2000 serially complete daily data

Note: For corn, temperatures below 50 are set to 50, and temperatures above 86 are set to 86

### Notes

- a. The monthly means are simple arithmetic averages computed by summing the monthly values for the period 1971-2000 and dividing by thirty. Prior to averaging, the data are adjusted if necessary to compensate for data quality issues, station moves or changes in station reporting practices. Missing months are replaced by estimates based on neighboring stations.
- b. The median is defined as the middle value in an ordered set of values. The median is being provided for the snow and precipitation elements because the mean can be a misleading value for precipitation normals.
  - c. Only observed validated values were used to select the extreme daily values.
  - d. Extreme monthly temperature/precipitation means were selected from the monthly normals data.

Monthly snow extremes were calculated from daily values quality controlled to be consistent with the Snow Climatology.

e. Degree Days were derived using the same techniques as the 1971-2000 normals.

Compete documentation for the 1971-2000 Normals is available on the internet from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

f. Mean "number of days statistics" for temperature and precipitation were calculated from a serially complete daily data set .

Documentation of the serially complete data set is available from the link below:

g. Snowfall and snow depth statistics were derived from the Snow Climatology.

Documentation for the Snow Climatology project is available from the link under references.

### **Data Sources for Tables**

Several different data sources were used to create the Clim20 climate summaries. In some cases the daily extremes appear inconsistent with the monthly extremes and or the mean number of days statistics. For example, a high daily extreme value may not be reflected in the highest monthly value or the mean number of days threshold that is less than and equal to the extreme value. Some of these difference are caused by different periods of record. Daily extremes are derived from the station's entire period of record while the serial data and normals data were are for the 1971-2000 period. Therefore extremes observed before 1971 would not be included in the 1971-2000 normals or the 1971-2000 serial daily data set. Inconsistencies can also occur when monthly values are adjusted to reflect the current observing conditions or were replaced during the 1971-2000 Monthly Normals processing and are not reconciled with the Summary of the Day data.

- a. Temperature/ Precipitation Tables
  - 1. 1971-2000 Monthly Normals
  - 2. Cooperative Summary of the Day
  - 3. National Weather Service station records
  - 4. 1971-2000 serially complete daily data

- c. Snow Tables
  - 1. Snow Climatology
  - 2. Cooperative Summary of the Day
- d. Freeze Data Table

1971-2000 serially complete daily data

- b. Degree Day Table
  - 1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
  - 2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

### References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html

U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/usnormalsprods.html

Snow Climatology Project Description, www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html

Eischeid, J. K., P. Pasteris, H. F. Diaz, M. Plantico, and N. Lott, 2000: Creating a serially complete, national daily time series of temperature and precipitation for the Western United States. J. Appl. Meteorol., 39, 1580-1591,

www1.ncdc.noaa.gov/pub/data/special/ serialcomplete\_jam\_0900.pdf