# **OKLAHOMA MONTHLY CLIMATE SUMMARY** APRIL 2006



At one point, April looked to be yet another drought-stricken month. Already cemented as the warmest April on record, the 2006 version was drastically dry up until the final few days. But, as often is the case, drought relief came in the form of a deluge. On the 28th and 29th, the area surrounding Love County received from 7-9 inches of rainfall, while some parts of north central Oklahoma totaled 5-7 inches. Most of the remaining eastern twothirds of the state garnered at least two inches of precipitation, but the far western counties were largely left wanting from the late-month rain event. The late rainfall was enough to allow the statewide-averaged precipitation total to finish near normal. Severe weather popped up sporadically during the month, such as on the 24th when a single supercell dropped simultaneous twisters near El Reno, one being of the rare anti-cyclonic variety. According to preliminary statistics, eight tornadoes touched down in the state during April, all of which were considered weak (F0-F1).

#### **Precipitation**

By finishing just below normal, the statewide-averaged precipitation for April ranked as the 48th wettest on record. The regional totals were widely varying, however. The Panhandle experienced the 8th driest April on record, while the northeast had its 15th wettest. West central sections were also significantly below normal with a deficit of more than an inch, the 27th driest April on record. Some localized areas surrounding Love County and the far northeast were more than four inches above normal for the month. The year-to-date totals are still woefully behind for all areas save south central and southeastern sections, which finished January-April near normal. The rest of the state remained between 1-4 inches below normal for the same period. The statewideaveraged year-to-date total was the 34th driest on record with a greater than two-inch deficit.

#### **Temperature**

The entire state was excessively warm during April with the statewide-averaged temperature more than six degrees above normal. Eleven maximum temperature records were either tied or broken during the month. The month's high temperature of 102 degrees was reached several times, just four degrees off the all-time April record of 106 degrees. The warm month helped propel the year-to-date statewide-averaged temperature to nearly five degrees above normal, the warmest such period on record.

| April 2006 Statewide Extremes         |          |            |        |  |  |  |  |  |  |  |
|---------------------------------------|----------|------------|--------|--|--|--|--|--|--|--|
| Description Extreme Station Date      |          |            |        |  |  |  |  |  |  |  |
| High Temperature                      | 102°F    | Grandfield | Apr 25 |  |  |  |  |  |  |  |
| Low Temperature 25°F Goodwell Apr 8   |          |            |        |  |  |  |  |  |  |  |
| High Precipitation                    | 8.59 in. | Newkirk    |        |  |  |  |  |  |  |  |
| Low Precipitation 0.01 in. Boise City |          |            |        |  |  |  |  |  |  |  |
|                                       |          |            | •      |  |  |  |  |  |  |  |

#### **April Daily Highlights**

**April 1-4:** An upper-level low pressure system moved in from the west overnight on the 1st, setting up the month's first day as a stormy one. A warm front moved over the state from the south bringing warm, humid air with it. Severe storms fired up along a dryline that afternoon. Large hail and strong winds of over 70 mph were common with the storms. A brief tornado touched down near the Tulsa airport late that evening. The Tipton Mesonet site recorded well over two inches of rainfall, while other areas in southwestern Oklahoma received just over an inch. The weather quieted significantly after the storms, with highs in the 70s and 80s on the 2nd. A surface high pressure system moved in on the 3rd, cooling the state down to more seasonable levels in the 60s and 70s. The high pressure dome moved to the east on the 4th, allowing winds to pick up from the south at 5-15 mph.

**April 5-6:** Humid air made its return to Oklahoma on the 5th. Low temperatures only fell into the 50s and 60s, and afternoon highs rose well into the 80s. Showers and storms developed early on the 6th, with more severe storms forming along a dryline later that afternoon. Large hail and winds exceeding 60 mph were reported in the northern half of the state, while three weak tornadoes touched down in northeastern Oklahoma. Winds behind the dryline in the west gusted to 60 mph, creating a large area of blowing dust.

**April 7-12:** The strong winds continued on the 7th and 8th, albeit from a northerly direction. Winds gusted to over 50 mph on the 7th to go along with lows in the 40s and 50s. Temperatures ahead of the front remained in the 70s and

80s, but fell into the 40s and 50s behind. The strong winds finally abated on the 9th, and temperatures plunged into the low twenties in the northwest. An approaching upper-level storm, centered over southern California, kicked winds up from the south on the 10th. The warmth returned on those southerly winds, finally rising into the 90s over southern Oklahoma by the 12th.

**April 13-18:** Summer-like conditions dominated this five-day period. Temperatures rose into the 90s each day, with several Mesonet sites recording triple-digit temperatures. Grandfield reported 102 degrees on both the 15th and 17th for the months highest temperature, along with Walters on the 15th. Lows were generally in the 60s and 70s, while the highs remained 15-25 degrees above normal. A cold front on the 18th finally returned the state to more spring-like conditions.

**April 19-22:** The weather on the 19th was a drastic change from the previous few days, with low temperatures in the 20s and 30s over a good portion of the state, and highs in the 70s and 80s. The next two days were much of the same, with a few showers and thunderstorms thrown in. Rainfall amounts were light for the most part, however. The 22nd was warm as a ridge of high pressure built in, and highs climbed into the 80s and 90s under sunny skies.

**April 23-27:** More record-heat was in store on the 23rd as high temperatures once again rose near the triple-digit mark. The 23rd was also the beginning of another stormy period. Severe storms struck northwestern Oklahoma late that evening with large hail and strong winds. More powerful storms struck again on the 24th. Hail up to three inches in diameter was reported in Caddo County, and rainfall amounts of over three inches were recorded in the northeast. A supercell thunderstorm produced simultaneous tornadoes - one cyclonic and one anti-cyclonic - near El Reno, the latter of which struck a hanger complex at the El Reno airport, causing severe damage to the structure and planes. The storms continued overnight into the early hours on the 25th, dropping more rain in southeastern Oklahoma. The cold front eventually swept through the state that day, swinging the wind around to the north and keeping high temperatures firmly in the 60s. Low temperatures were much below normal for the next couple of days. Twenties were common in the northwest, with 30s and 40s elsewhere. The period ended with a very pleasant day on the 27th under sunny skies and highs in the 70s and 80s.

April 28-30: A powerful upper-level storm approached the state from Arizona, sending out several impulses which generated showers and thunderstorms over the state. The muggy weather on the 28th provided plenty of moisture for storms that night. Several waves of storms continuously moved across the eastern two-thirds of the state, with 24-hour rainfall totals exceeding nine inches in Love County near Marietta. Surrounding areas in Love and Marshall counties reported over seven inches, and locations in Kay and Osage counties recorded over five inches. The remainder of the eastern two-thirds of the state received

between two-four inches, in general, but the far western portions of the state remained dry for the most part. Flooding was reported in Marietta and Ponca City. A few severe storms flared up once again on the 30th in north central sections, but amounts were generally less than a half of an inch.

| April 2006 Statewide Statistics |         |         |                  |  |  |  |  |  |  |  |  |
|---------------------------------|---------|---------|------------------|--|--|--|--|--|--|--|--|
| Temperature                     |         |         |                  |  |  |  |  |  |  |  |  |
|                                 | Average | Depart. | Rank (1892-2006) |  |  |  |  |  |  |  |  |
| Month (Apr)                     | 65.6°F  | 6.5°F   | 1st Warmest      |  |  |  |  |  |  |  |  |
| Season-to-Date<br>(Mar-Apr)     | 59.2°F  | 4.1°F   | 3rd Warmest      |  |  |  |  |  |  |  |  |
| Year -to-Date                   | 51.6°F  | 4.8°F   | 1st Warmest      |  |  |  |  |  |  |  |  |

#### **Precipitation Total** Depart. Rank (1892-2006) Month (Apr) 3.27 in. -0.09 in. 48th Wettest Season-to-Date 6.15 in. -0.32 in. 46th Wettest (Mar-Apr) Year-to-Date 7.38 in. -2.30 in. 34th Driest (Jan-Apr)

Depart. = Departure from 30-year normal

(Jan-Apr)

### **April 2006 Severe Weather**

#### **Significant Tornadoes (F2 or greater)**

No significant tornadoes reported in the state.

#### Hail (2 inches in diameter or greater)

| Size (in.) | Location           | County  | Day |
|------------|--------------------|---------|-----|
| 3.00       | 2 S Anadarko       | Caddo   | 24  |
| 2.75       | 2 W Randlett       | Cotton  | 24  |
| 2.75       | 3 E Vinson         | Harmon  | 28  |
| 2.75       | 3 NNE Sand Springs | Osage   | 24  |
| 2.50       | 4 NE Owasso        | Rogers  | 24  |
| 2.50       | 5 ESE Devol        | Cotton  | 24  |
| 2.00       | 10 SSW Erick       | Beckham | 1   |
| 2.00       | 7 N Perry          | Noble   | 24  |
| 2.00       | Owasso             | Tulsa   | 24  |

### Wind Gusts (70 mph or greater)

| Speed (m.p.h.) | Location       | County   | Day |
|----------------|----------------|----------|-----|
| 74             | 1 SE Frederick | Tillman  | 1   |
| 73             | 1 W Blanchard  | Grady    | 1   |
| 70             | 6 W Yukon      | Canadian | 1   |
| 70             | Tulsa          | Tulsa    | 1   |

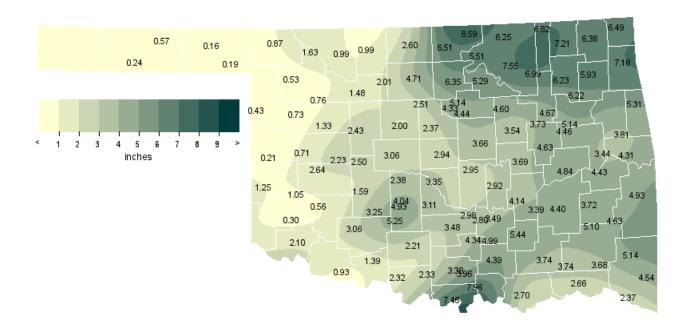
#### **Flooding**

| Damas City   | V        | 20 |
|--------------|----------|----|
| Ponca City   | Kay      | 28 |
| Marietta     | Love     | 28 |
| 1 W Kingston | Marshall | 28 |

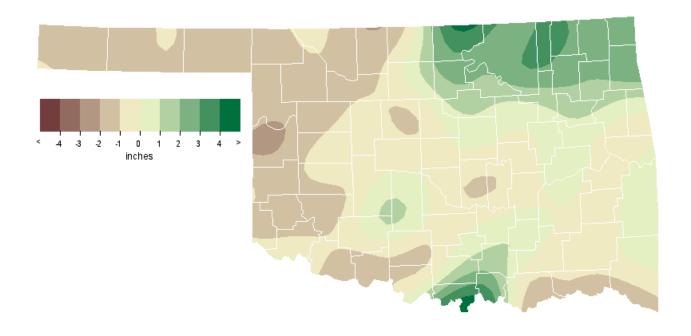
#### **Record Event Report**

| Description              | Day | Location      | Record | <b>Previous Record</b> | Year |
|--------------------------|-----|---------------|--------|------------------------|------|
| High Temperature         | 1   | McAlester     | 83     | 82                     | 1963 |
| High Temperature (tied)  | 2   | McAlester     | 87     | 87                     | 1964 |
| High Temperature         | 14  | McAlester     | 88     | 87                     | 1956 |
| High Temperature (tied)  | 15  | Oklahoma City | 90     | 90                     | 1940 |
| High Temperature         | 16  | McAlester     | 92     | 89                     | 1982 |
| High Minimum Temperature | 16  | Tulsa         | 71     | 68                     | 1982 |
| High Temperature         | 17  | McAlester     | 95     | 89                     | 1987 |
| High Temperature         | 17  | Oklahoma City | 98     | 92                     | 1987 |
| High Temperature         | 17  | Tulsa         | 94     | 92                     | 1987 |
| High Temperature         | 18  | McAlester     | 97     | 94                     | 1987 |
| High Temperature         | 23  | Oklahoma City | 91     | 89                     | 1989 |
| Daily Rainfall           | 24  | Tulsa         | 2.36   | 1.67                   | 1947 |

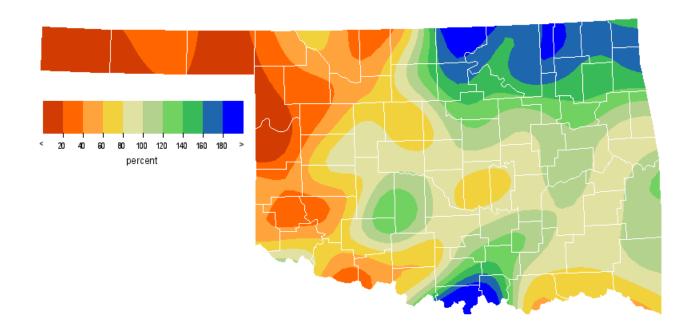
### **April 2006 Observed Precipitation**



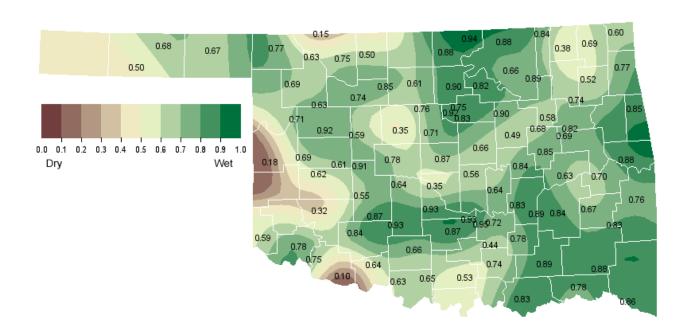
**April 2006 Departure from Normal Precipitation** 



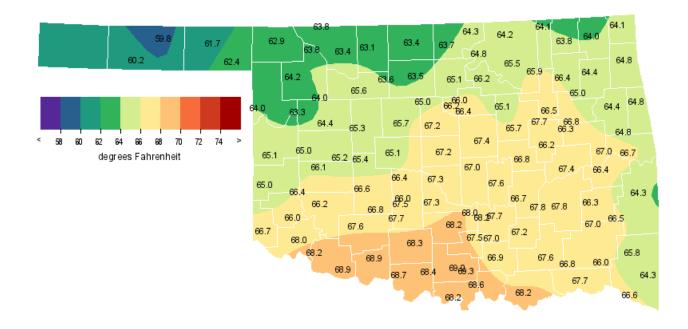
### **April 2006 Percent of Normal Precipitation**



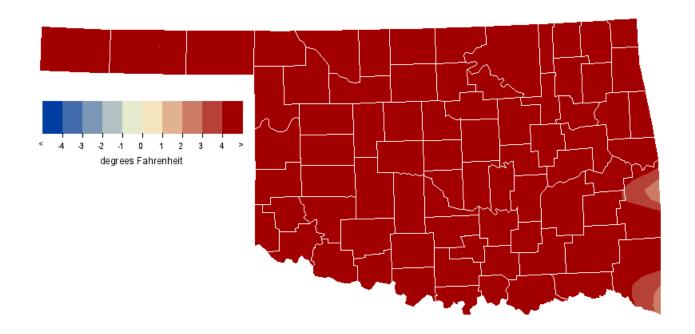
April 2006 Average Soil Moisture at 25cm



### **April 2006 Average Temperature**



**April 2006 Departure from Normal Temperature** 



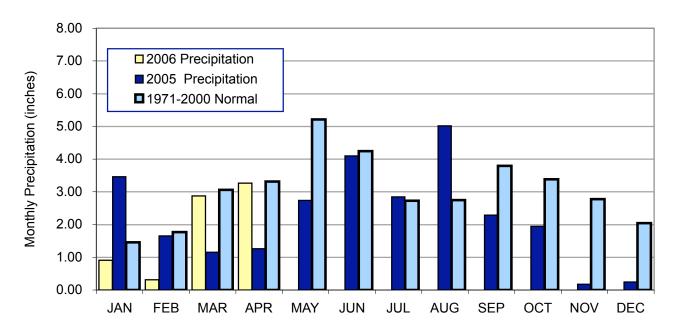
# **Mesonet Monthly Summary for April 2006**

| NAME   | MEAN<br>TEMP   | HIGH<br>TEMP                                  | DAY  | LOW<br>TEMP  | DAY                             | HDD  | CDD   |  | HIGH<br>24-HR   | DAY   | NAME  |  | HIGH<br>TEMP  | DAY  | LOW<br>TEMP  | DAY                             | HDD                                 | CDD   |  | HIGH<br>24-HR  | DAY  |
|--|--|---|--|--|---------------------------------|--|---|--|---|---|---|--|---|--|--|---------------------------------|-------------------------------------|---|--|--|--|
| PANHANDLE<br>Arnett<br>Beaver  | 64.1<br>61.6   | 97<br>97                                      | 17<br>13   | 33<br>27   | 26<br>26                        | 126<br>171   | 98<br>71  | .43  | .20   | 28<br>28  | Goodwell<br>Hooker  | 60.2<br>59.8   | 94<br>97  | 23<br>23                                     | 25<br>27   | 8                               | 197<br>199                          | 53<br>43  | .24  | .22  | 28<br>28   |
| Boise City<br>Buffalo  | 57.1<br>62.9   | 91<br>99                                      | 23<br>17   | 21   | 8 26                            | ****   | ****  | .01  | .01   | 27  | Kenton<br>Slapout   | 58.3<br>62.4   | 90<br>97  | 13<br>17                                     | 25<br>30   | 8                               | ****                                | ****  | .18  | .18  | 27<br>28   |
| NORTH CENTRAL Blackwell Breckinridge Cherokee  | 63.7<br>63.6<br>63.1   | 98<br>98<br>99                                | 17<br>17<br>17                                     | 32<br>31<br>30   | 9<br>9<br>9                     | 133<br>133<br>148                                      | 93<br>90<br>91  | 6.51<br>4.71<br>.99  | 4.15<br>3.81<br>.66   | 28<br>28<br>24  | Medford<br>Newkirk<br>Red Rock  | 63.5<br>64.2<br>65.1   | 98<br>95<br>99                                      | 17<br>17<br>17                               | 33<br>35<br>33   | 9<br>9<br>9                     | 133<br>128<br>116                   | 87<br>104<br>119  | 2.60<br>8.59<br>6.35   | 1.41<br>3.72<br>2.37   | 28<br>28<br>24                                     |
| Fairview<br>Freedom<br>Lahoma<br>May Ranch   | 65.6<br>63.8<br>63.7<br>63.9   | 99<br>98<br>98<br>99                          | 17<br>13<br>17<br>13                               | 36<br>31<br>33<br>32                                     | 9<br>26<br>9<br>26              | 102<br>134<br>123<br>134                               | 120<br>98<br>83<br>100  | 1.48<br>1.63<br>2.01   | 1.16<br>1.24<br>1.56<br>.83   | 28<br>28<br>28<br>28                                    | Seiling<br>Woodward<br>Alva   | 64.1<br>64.2<br>63.5   | 98<br>97<br>98                                      | 17<br>17<br>13                               | 33<br>33<br>33   | 26<br>26<br>4                   | 124<br>128<br>140                   | 96<br>104<br>94   | .76<br>.53<br>.99  | .67<br>.29<br>.75  | 28<br>28<br>28                                     |
| NORTHEAST<br>Bixby   | 66.4   | 95<br>97                                      | 17   | 31   | 9                               | 86   | 129   | 4.67   | 1.79  | 28  | Pryor   | 64.5   | 94<br>92  | 17   | 29   | 9                               | 116                                 | 100   | 5.93   | 2.27   | 29   |
| Burbank<br>Copan<br>Foraker<br>Jay<br>Miami<br>Nowata  | 64.7<br>64.2<br>64.2<br>64.8<br>64.1<br>63.8                         | 92<br>94<br>95<br>94<br>93                    | 17<br>14<br>17<br>17<br>17                         | 30<br>35<br>34<br>33<br>28<br>28                         | 27<br>9<br>9<br>9               | 119<br>126<br>122<br>113<br>126<br>137                 | 111<br>101<br>98<br>106<br>100                                      | 5.51<br>6.82<br>6.25<br>7.16<br>6.49<br>7.21                                 | 2.78<br>3.56<br>2.33<br>2.31<br>2.62  | 28<br>28<br>28<br>29<br>29<br>24                        | Skiatook<br>Vinita<br>Wynona<br>Porter<br>Inola<br>Claremore                              | 65.8<br>64.0<br>65.4<br>66.8<br>65.0<br>66.4                 | 95<br>95<br>95<br>95<br>95                          | 17<br>17<br>17<br>17<br>17                   | 39<br>31<br>32<br>35<br>31<br>34                         | 9 9 9 9                         | 94<br>129<br>106<br>79<br>102<br>87 | 120<br>100<br>118<br>133<br>101<br>128                              | 6.99<br>6.38<br>7.55<br>5.14<br>6.22<br>6.23                                 | 2.75<br>3.15<br>3.31<br>2.21<br>2.30<br>1.87                                 | 24<br>24<br>24<br>28<br>24<br>24                   |
| Pawnee WEST CENTRAL  | 66.2   | 99  | 17   | 33   | 9                               | 99   | 136   | 5.29   | 2.06  | 24  |   |  |   |  |  |                                 |                                     |   |  |  |  |
| Bessie<br>Butler<br>Camargo<br>Cheyenne<br>Erick   | 66.2<br>65.1<br>63.3<br>65.1<br>65.0                                 | 96<br>97<br>97<br>96<br>98                    | 17<br>17<br>17<br>17<br>17                         | 37<br>34<br>31<br>34<br>36                               | 26<br>26<br>9<br>26<br>9        | 87<br>103<br>131<br>102<br>94                          | 121<br>105<br>80<br>104<br>95                                       | 2.64<br>.71<br>.73<br>.21<br>1.25  | 1.42<br>.42<br>.38<br>.11   | 28<br>28<br>23<br>28<br>28                              | Putnam<br>Retrop<br>Watonga<br>Weatherford  | 64.4<br>66.4<br>65.2<br>65.2                                 | 96<br>98<br>97<br>96                                | 17<br>17<br>17<br>17                         | 36<br>37<br>38<br>38                                     | 26<br>26<br>26<br>26            | 110<br>80<br>103<br>99              | 92<br>122<br>110<br>105   | 1.33<br>1.05<br>2.43<br>2.23   | .46<br>.81<br>2.07<br>1.73   | 14<br>28<br>28<br>28                               |
| CENTRAL Bowlegs Bristow Chandler Chickasha El Reno Guthrie Kingfisher Marena Minco Oilton    | 67.6<br>65.7<br>67.4<br>66.0<br>65.1<br>67.1<br>65.7<br>66.0<br>66.4 | 98<br>96<br>99<br>97<br>98<br>99<br>100<br>99 | 17<br>17<br>17<br>17<br>17<br>17<br>17<br>17<br>17 | 31<br>29<br>34<br>31<br>32<br>41<br>31<br>37<br>41<br>29 | 9<br>9<br>9<br>9<br>4<br>9<br>9 | 69<br>97<br>78<br>82<br>106<br>82<br>103<br>****<br>77 | 147<br>119<br>149<br>110<br>108<br>146<br>125<br>****<br>118<br>119 | 2.92<br>3.54<br>3.66<br>4.04<br>3.06<br>2.37<br>2.00<br>4.33<br>2.38<br>4.60 | 1.02<br>1.85<br>1.60<br>1.86<br>1.04<br>1.08<br>.92<br>1.34<br>1.19<br>2.40 | 28<br>28<br>28<br>28<br>1<br>29<br>29<br>29<br>29<br>29 | Okemah Perkins Shawnee Spencer Stillwater Washington Ninnekah Acme Norman Marshall        | 66.8<br>66.1<br>67.0<br>67.1<br>66.0<br>67.3<br>67.5<br>67.6 | 97<br>99<br>98<br>98<br>101<br>96<br>98<br>97<br>97 | 17<br>17<br>17<br>17<br>17<br>17<br>17<br>17 | 34<br>33<br>34<br>38<br>30<br>37<br>36<br>40<br>34<br>31 | 9<br>9<br>4<br>9<br>9<br>4<br>9 | 76 **** 78 79 108 65 67 67 73 113   | 131<br>****<br>137<br>143<br>139<br>134<br>143<br>146<br>144<br>112 | 3.69<br>4.44<br>2.95<br>2.94<br>5.14<br>****<br>4.93<br>5.25<br>3.35<br>2.51 | 1.23<br>1.69<br>1.60<br>1.28<br>1.79<br>1.82<br>2.90<br>1.65<br>1.58<br>1.43 | 28<br>28<br>28<br>29<br>24<br>28<br>28<br>24<br>28 |
| EAST CENTRAL Calvin Cookson Eufaula Haskell McAlester Okmulgee Sallisaw                      | 66.7<br>64.8<br>67.3<br>66.3<br>67.8<br>66.1                         | 96<br>92<br>95<br>96<br>97<br>97              | 17<br>18<br>18<br>18<br>18<br>17                   | 31<br>35<br>37<br>32<br>35<br>30                         | 9<br>27<br>9<br>9<br>9          | 72<br>100<br>66<br>84<br>61<br>91<br>69                | 124<br>96<br>135<br>121<br>147<br>124<br>118                        | 4.14<br>3.81<br>4.84<br>4.46<br>4.40<br>4.63<br>4.31                         | 2.31<br>1.29<br>2.03<br>1.73<br>2.27<br>1.39<br>1.65                        | 28<br>29<br>28<br>28<br>28<br>28                        | Stigler<br>Stuart<br>Tahlequah<br>Webbers Falls<br>Westville<br>Hectorville               | 66.3<br>67.8<br>64.4<br>67.0<br>64.8                         | 95<br>96<br>91<br>97<br>92<br>97                    | 18<br>18<br>18<br>18<br>17                   | 33<br>38<br>34<br>36<br>33<br>38                         | 9<br>9<br>27<br>9<br>27<br>9    | 82<br>56<br>103<br>73<br>102<br>71  | 122<br>140<br>85<br>134<br>96<br>150                                | 4.43<br>3.39<br>****<br>3.44<br>5.31<br>3.73                                 | 1.54<br>2.29<br>****<br>1.04<br>1.52<br>1.29                                 | 29<br>28<br>***<br>29<br>24<br>28                  |
| SOUTHWEST<br>Altus<br>Fort Cobb<br>Hinton<br>Hobart<br>Hollis<br>Mangum                      | 68.1<br>66.6<br>65.4<br>66.2<br>66.6                                 | 101<br>98<br>96<br>97<br>98<br>100            | 17<br>15<br>17<br>17                               | 42<br>38<br>38<br>38<br>38<br>35                         | 26<br>9<br>26<br>26<br>9        | 53<br>71<br>94<br>82<br>68<br>****                     | 147<br>119<br>105<br>119<br>117                                     | 2.10<br>1.59<br>2.50<br>.56<br>****  | 1.12<br>.60<br>.92<br>.26<br>****   | 1<br>29<br>29<br>1<br>***                               | Medicine Park<br>Tipton<br>Walters<br>Apache<br>Grandfield                                | 67.7<br>68.7<br>68.9<br>66.8<br>68.8                         | 99<br>100<br>102<br>98<br>102                       | 15<br>17<br>15<br>15                         | 42<br>41<br>39<br>37<br>38                               | 26<br>26<br>9<br>9              | 54<br>****<br>44<br>71<br>46        | 134<br>****<br>161<br>125<br>161                                    | 3.06<br>2.66<br>1.39<br>3.25<br>.93  | 1.69<br>2.57<br>.82<br>1.18  | 28<br>1<br>29<br>29<br>29                          |
| SOUTH CENTRAL Ada Burneyville Byars Centrahoma Durant Ketchum Ranch Lane Madill Pauls Valley | 67.6<br>68.2<br>68.1<br>67.2<br>68.3<br>68.4<br>67.6<br>68.6         | 97<br>97<br>96<br>96                          | 17<br>17<br>18<br>18                               | 34<br>31<br>39<br>32<br>41<br>41<br>35<br>37<br>36       | 9                               | 55<br>59<br>66<br>41<br>****<br>52<br>40               | 151<br>151<br>133<br>138<br>****<br>131<br>147                      | 7.46<br>2.98<br>5.44<br>2.70<br>2.21<br>3.74<br>7.96                         | 1.47<br>6.62<br>1.32<br>3.36<br>1.30<br>1.28<br>1.85<br>6.80<br>1.41        | 28<br>29<br>28<br>28<br>29<br>29                        | Ringling<br>Sulphur<br>Tishomingo<br>Waurika<br>Vanoss<br>Newport<br>Ardmore<br>Fittstown | 68.4<br>67.5<br>66.9<br>68.6<br>69.0<br>69.2<br>67.0         | 96<br>95<br>100<br>100<br>98<br>100                 |  | 40<br>37<br>36<br>38<br>31<br>41<br>39<br>37             | 9<br>9<br>27<br>9<br>9<br>9     | 43<br>****<br>36<br>40              | 133<br>113<br>153<br>****<br>155<br>166                             | 3.38   | 2.16<br>3.39<br>1.54<br>1.31<br>2.85<br>3.41                                 | 28<br>28<br>28<br>28<br>28<br>28                   |
| SOUTHEAST<br>Antlers<br>Clayton<br>Cloudy<br>Hugo<br>Idabel                                  | 67.2<br>66.9<br>65.9<br>67.7<br>66.6                                 | 92<br>94                                      |  | 35<br>34<br>40<br>43<br>40                               | 9<br>27                         | ****<br>68<br>60<br>44<br>50                           | 126<br>89<br>125  | 5.10<br>3.68<br>2.66   | 2.14<br>2.47<br>1.43<br>1.66<br>1.29  | 29  | Mt Herman<br>Talihina<br>Wilburton<br>Wister<br>Broken Bow                                | 65.8<br>66.4<br>66.3<br>64.3                                 |   | 18   | 39<br>33<br>34<br>32<br>36                               | 27<br>9<br>9<br>9               | 66<br>74<br>81<br>102<br>83         | 120<br>81   | 5.14<br>4.63<br>3.72<br>4.93<br>4.54   | 2.32<br>2.10<br>2.43   | 29<br>29   |

### **April 2006 Mesonet Precipitation Comparison**

| Climate Division | Precipitation (inches) | Departure from Normal (inches) | Rank since 1895 | Wettest on<br>Record (Year) | Driest on<br>Record (Year) | Apr-05 |
|------------------|------------------------|--------------------------------|-----------------|-----------------------------|----------------------------|--------|
| Panhandle        | 0.41                   | -1.44                          | 8th Driest      | 5.28 (1942)                 | 0.00 (1909)                | 1.21   |
| North Central    | 3.10                   | 0.14                           | 43rd Wettest    | 7.43 (1999)                 | 0.55 (1989)                | 0.75   |
| Northeast        | 6.26                   | 2.26                           | 15th Wettest    | 9.67 (1942)                 | 0.17 (1989)                | 2.22   |
| West Central     | 1.40                   | -1.20                          | 27th Driest     | 8.73 (1997)                 | 0.15 (1996)                | 0.85   |
| Central          | 3.56                   | 0.03                           | 48th Wettest    | 9.49 (1942)                 | 0.24 (1989)                | 0.57   |
| East Central     | 4.24                   | -0.09                          | 54th Wettest    | 11.82 (1957)                | 0.75 (1989)                | 2.58   |
| Southwest        | 1.74                   | -0.93                          | 35th Driest     | 7.30 (1997)                 | 0.14 (1989)                | 0.82   |
| South Central    | 4.00                   | 0.24                           | 43rd Wettest    | 11.43 (1942)                | 0.53 (1989)                | 1.07   |
| Southeast        | 4.05                   | -0.44                          | 49th Driest     | 12.79 (1957)                | 0.53 (1987)                | 2.19   |
| Statewide        | 3.27                   | -0.09                          | 48th Wettest    | 8.50 (1942)                 | 0.58 (1989)                | 1.33   |

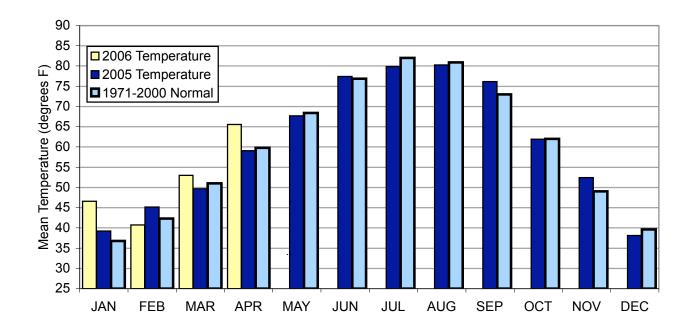
### 2005 and 2006 Statewide Precipitation Monthly Totals vs. Normal



### **April 2006 Mesonet Temperature Comparison**

| Climate Division | Average Temp<br>(F) | Departure from<br>Normal (F) | Rank since 1895 | Hottest on<br>Record (Year) | Coldest on<br>Record (Year) | Apr-05 (F) |
|------------------|---------------------|------------------------------|-----------------|-----------------------------|-----------------------------|------------|
| Panhandle        | 61.8                | 6.6                          | 2nd Warmest     | 62.2 (1981)                 | 48.2 (1926)                 | 55.0       |
| North Central    | 64.0                | 6.4                          | 3rd Warmest     | 65.0 (1981)                 | 50.8 (1983)                 | 57.8       |
| Northeast        | 65.1                | 6.2                          | 4th Warmest     | 66.1 (1981)                 | 52.5 (1907)                 | 59.3       |
| West Central     | 65.1                | 7.2                          | 1st Warmest     | 64.5 (1954)                 | 52.1 (1926)                 | 58.4       |
| Central          | 66.5                | 6.9                          | 1st Warmest     | 66.2 (1981)                 | 53.6 (1983)                 | 60.0       |
| East Central     | 66.5                | 6.3                          | 3rd Warmest     | 66.7 (1896)                 | 53.9 (1907)                 | 60.8       |
| Southwest        | 67.2                | 6.8                          | 1st Warmest     | 66.5 (1954)                 | 54.2 (1926)                 | 60.1       |
| South Central    | 68.1                | 6.8                          | 1st Warmest     | 67.5 (1948)                 | 55.9 (1983)                 | 61.2       |
| Southeast        | 66.1                | 5.5                          | 5th Warmest     | 66.7 (1954)                 | 55.4 (1983)                 | 59.7       |
| Statewide        | 65.6                | 6.5                          | 1st Warmest     | 65.4 (1981)                 | 53.2 (1983)                 | 59.2       |

### 2005 and 2006 Statewide Temperature Monthly Averages vs. Normal



# **Mesonet Extremes for April 2006**

| Climate Division | High<br>Temp<br>(F) | Day  | Station     | Low<br>Temp<br>(F) | Day | Station     | High<br>Monthly<br>Rainfall<br>(inches) | Station   | High<br>Daily<br>Rainfall<br>(inches) | Day  | Station       |
|------------------|---------------------|------|-------------|--------------------|-----|-------------|---|-----------|---------------------------------------|------|---------------|
| Panhandle        | 99                  | 17th | Buffalo     | 25                 | 8th | Goodwell    | 0.87                                    | Buffalo   | 0.71                                  | 1st  | Buffalo       |
| North Central    | 99                  | 17th | Cherokee    | 30                 | 9th | Cherokee    | 8.59                                    | Newkirk   | 4.15                                  | 28th | Blackwell     |
| Northeast        | 99                  | 17th | Pawnee      | 28                 | 9th | Nowata      | 7.55                                    | Wynona    | 3.56                                  | 28th | Foraker       |
| West Central     | 98                  | 17th | Erick       | 31                 | 9th | Camargo     | 2.64                                    | Bessie    | 2.07                                  | 28th | Watonga       |
| Central          | 101                 | 17th | Stillwater  | 29                 | 9th | Oilton      | 5.25                                    | Acme      | 2.90                                  | 28th | Ninnekah      |
| East Central     | 97                  | 17th | Okmulgee    | 30                 | 9th | Okmulgee    | 5.31                                    | Westville | 2.31                                  | 28th | Calvin        |
| Southwest        | 102                 | 15th | Grandfield  | 35                 | 9th | Mangum      | 3.25                                    | Apache    | 1.69                                  | 28th | Medicine Park |
| South Central    | 100                 | 17th | Burneyville | 31                 | 9th | Burneyville | 7.96                                    | Madill    | 6.80                                  | 28th | Madill        |
| Southeast        | 97                  | 18th | Antlers     | 32                 | 9th | Wister      | 5.14                                    | Mt Herman | 2.47                                  | 29th | Clayton       |
| Statewide        | 102                 | 15th | Grandfield  | 25                 | 8th | Goodwell    | 8.59                                    | Newkirk   | 6.80                                  | 28th | Madill        |

# May Climatological Outlook

Oklahoma's weather reaches something of a crescendo in May as springtime comes to full flower. May is Oklahoma's wettest (statewide-averaged precipitation of 5.13 inches) and certainly its stormiest month (an average of 19.9 tornadoes, more than one-third of the annual average, occurring on 5.5 days, statewide). Its position in the spring transition season is confirmed by a monthly mean temperature, averaged statewide, of 68.4 degrees that ranks fifth highest among the months. Vestiges of winter are occasionally seen in the far northwestern portions of the state, but mostly May is a time for flowering of most plants, full leafing of deciduous trees, planting of row crops, and the maturing and ripening of the winter wheat that was sowed the previous fall.

#### Temperature

Mean: 68.4 degrees

Warmest May: 1896, 75.8 degrees Coolest May: 1907, 62.3 degrees

Hottest recorded: 114 degrees, Weatherford, May 25, 2000 Coldest recorded: 19 degrees, Hooker, May 1, 1909

May usually is characterized by a pleasant range of temperatures across the state, although there are times most years when it is evident that the hot Oklahoma summer is drawing near. Monthly mean temperatures since 1892 have ranged from 62.3 degrees in 1907 to 75.8 degrees in 1896. Normal daily maximum temperatures across the state vary from 84.6 degrees at Waurika to 76.5 degrees at Arnett. Normal daily minimum temperatures fall between 61.2 degrees at Ardmore and 46.8 degrees at Boise City. Historical extremes of temperature during the month are 114 degrees at Weatherford, reported on May 25, 2000 and 19 degrees at Hooker on May 1, 1909. Temperatures in southwestern Oklahoma, the state's hot spot, reach 100 degrees an average of slightly more than once each May. Freezing temperatures are also rare, occurring less than once per year in the panhandle, rarely elsewhere. Freezes have occurred in the state's most northerly regions as late as the end of the month.

#### Precipitation

Mean: 5.13 inches

Wettest May: 1957, 10.68 inches Driest May: 1988, 1.30 inches

Wettest location: Smithville, 7.06 inches Driest location: Regnier, 2.02 inches

Most recorded: 22.38 inches, Hennessey, 1957

The Oklahoma panhandle's climate differs from the rest of the state in that its primary precipitation season is shifted toward summer, being tied to the patterns of the High Plains, of which it is a part. Elsewhere in the state, May is the month of maximum precipitation and May is, in fact, the panhandle's second wettest month by a small margin. May has produced statewide-averaged monthly precipitation totals ranging from 10.68 inches in 1957 to 1.30 inches in 1988. Extremes of individual station-normal precipitation for the month are 7.06 inches in the southeast at Smithville and 2.29 inches in the western panhandle at Regnier. Miami recorded the greatest May monthly total precipitation, 23.95 inches, in 1943. The record-breaking 1957 statewide-averaged precipitation was amplified by the May total of 22.38 inches of rain recorded at Hennessey, most of which fell during the drought-breaking, flood-producing deluge that hammered much of the state on the 15th and 16th. Purcell apparently holds the single reporting-day precipitation record for May, measuring 13.68 inches of rain on May 11, 1950. Interestingly, the events that produced the Purcell and Hennessey precipitation records (and the widespread flooding that occurred after each) bracket the state's driest ever 7-year period.

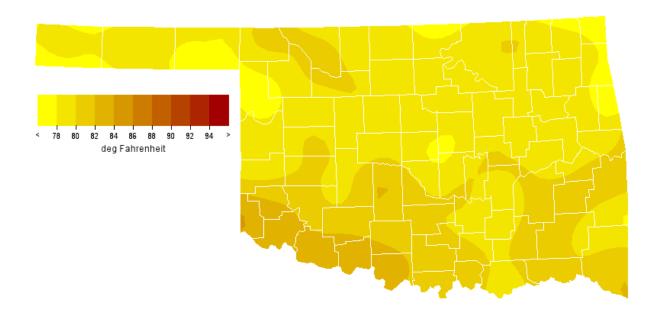
#### **Tornadoes**

Average May Tornadoes: 20.4

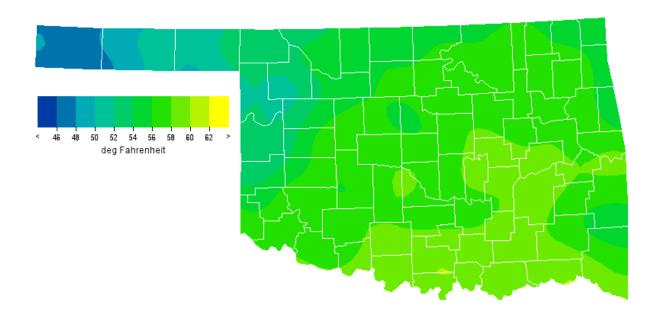
Most: 90 (1999)

Springtime in Oklahoma is noted for severe thunderstorms and tornadoes. Over the last 52 years (the period of reasonably comprehensive statistics on the subject) Oklahoma has been struck by more tornadoes in May than in any other two months combined (April and June rank second and third, respectively, among the months). May 1999 holds the state record for most tornadoes in a single month with a nearly unbelievable confirmed total of 91. Most of those tornadoes (59) occurred in central and western Oklahoma on the afternoon and evening of May 3. That outbreak caused extensive damage and killed 40 people along a wide path extending generally from Amber to Stroud. Some of the fiercest storms struck in the southern portion of the Oklahoma City metropolitan area. A mobile Doppler radar operated by a University of Oklahoma research team measured winds as great as 318 miles per hour in one of the funnels, the greatest wind speed yet measured on the planet.

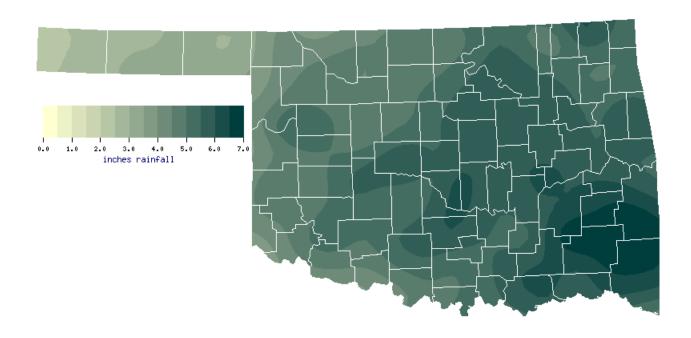
## May Normal Monthly Maximum Temperature (1971-2000)



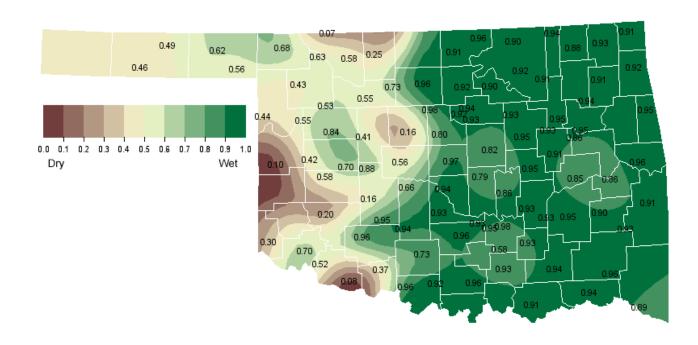
### **May Normal Monthly Minimum Temperature (1971-2000)**

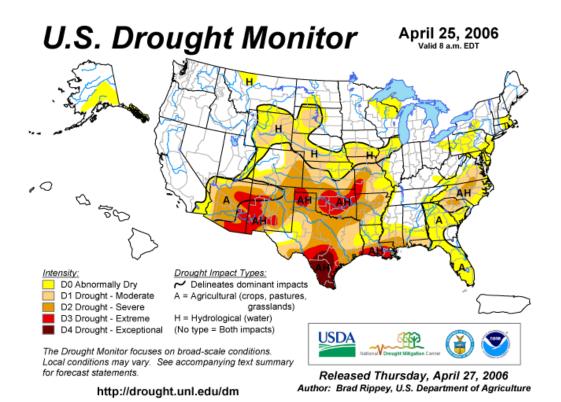


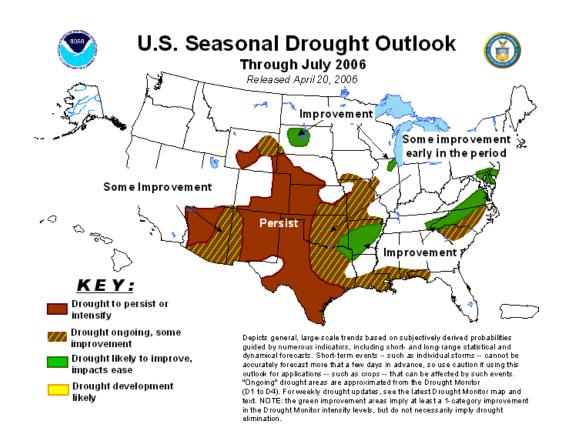
## **May Normal Precipitation (1971-2000)**



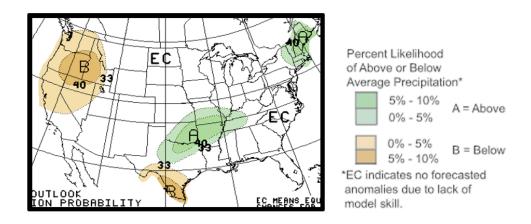
May 1, 2006 Soil Moisture Conditions at 25cm



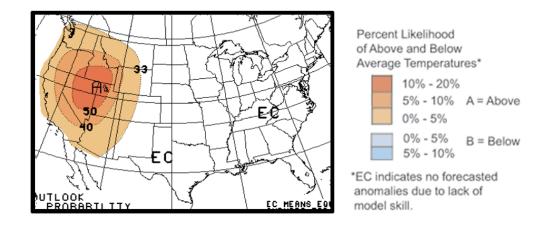




### May 2006 U.S. Precipitation Forecast



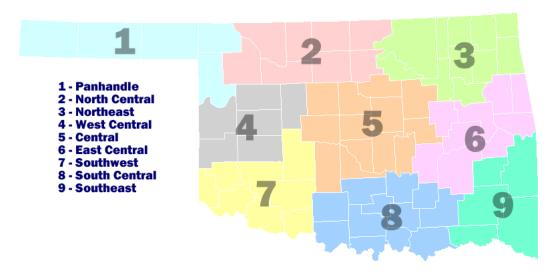
May 2006 U.S. Temperature Forecast



### **May Climate Normals**

| Climate Division | Max. Temperature $(\infty F)$ | Min. Temperature $(\infty F)$ | Avg. Temperature ( $\infty F$ ) | Precipitation (inches) |
|------------------|-------------------------------|-------------------------------|---------------------------------|------------------------|
| 1                | 78.8                          | 50.8                          | 64.8                            | 3.30                   |
| 2                | 79.1                          | 54.9                          | 67.0                            | 4.68                   |
| 3                | 78.9                          | 56.6                          | 67.8                            | 5.40                   |
| 4                | 79.5                          | 55.0                          | 67.3                            | 4.64                   |
| 5                | 79.6                          | 57.5                          | 68.6                            | 5.45                   |
| 6                | 79.2                          | 57.8                          | 68.5                            | 5.77                   |
| 7                | 81.8                          | 56.8                          | 69.3                            | 4.80                   |
| 8                | 80.8                          | 58.8                          | 69.8                            | 5.52                   |
| 9                | 80.5                          | 57.5                          | 69.0                            | 6.31                   |
| Statewide        | 79.8                          | 56.3                          | 68.1                            | 5.21                   |

### **Oklahoma Climate Divisions**



#### Interpretation Information

Mean Daily Temperature: Calculated from an average of the daily maximum and minimum temperatures. Daily averages are summed for each day, and then divided by the number of valid data points – typically the number of days in the month. Although this may differ from the "true" daily average, it is consistent with historical methods of observation and comparable to the normals and extremes for stations and regions of the state.

Degree Days: Degree Days are calculated each day of the month for which there is a temperature report and the mean temperature for the day is less than (Heating Degree Days) or greater than (Cooling Degree Days) 65 degrees. Daily values are summed to arrive at a monthly total. HDD/ CDD are qualitative measures of how much heating/cooling was required to maintain a comfortable indoor temperature. Missing observations may result in an artificially high or low value.

Severe Weather Reports: Only the most significant events are listed. Tornadoes of F2 or greater strength (on the 0-5 Fujita scale), hail of two inches diameter or greater, and wind speeds of 70 miles per hour or above are listed. National Weather Service defines storms as severe when they produce a tornado, hail of three-quarters inch or greater, or wind speeds above 57 miles per hour (50 knots). For additional reports, contact the Oklahoma Climatological Survey, Storm Prediction Center, or your local National Weather Service forecast office

Soil Moisture: The soil moisture variable displayed is the Fractional Water Index (FWI), measured at a depth of 25 cm. This unitless value ranges from very dry soil having a value of 0, to saturated soils having a value of 1.

#### Additional Resources

Sunrise / Sunset tables

U.S. Naval Observatory: http://aa.usno.navy.mil/data

**Severe Storm Reports** 

Storm Prediction Center: http://spc.noaa.gov/climo/

National Climatic Data Center (more than about 4-5 months old): http://www4.ncdc.noaa.gov/cgi-win/wwcgi.dll?wwEvent~Storms

**Seasonal Outlooks** 

Climate Prediction Center:

http://www.cpc.ncep.noaa.gov/products/OUTLOOKS index.html

Climate Calendars and other local weather and climate information

Oklahoma Climatological Survey: http://climate.ocs.ou.edu or

http://www.ocs.ou.edu/

E-mail (ocs@ou.edu) or telephone (405/325-2541)



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