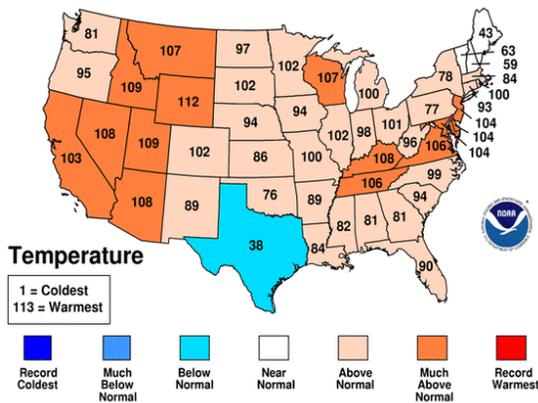


2007.....A review of this past year's weather.

Perhaps the overall theme for the weather this past year will be drought and overall warm temperatures. Yearly precipitation until late totaled substantially below the amounts of the prior several years, and much of southern and eastern Kentucky suffered from severe or extreme drought at one time. Several of these past 12 months were very warm; especially August, which was exceptionally hot. The graph below shows how warm Kentucky was this past year.

January-November 2007 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



Out of the last 113 years, 2007 was the 6th warmest of record for Kentucky through the month of November. Only Texas stands out as within the coldest third of the last 113 years. Excessive rainfall and cloudiness during the spring and late summer kept Texas so cool.

Here are the monthly temperature statistics for Bowling Green, Lexington, and Louisville's Standiford Airport. The average temperature for several of these months fell within the warmest or coldest 10 months on record.

Average monthly temperature (Departure from Normal)	Louisville Standiford Airport	Lexington	Bowling Green
January	38.8 (+5.8)	36.9 (+4.9)	38.7 (+4.5)
February	30.0 (- 7.6)	27.5 (- 8.9) *9	33.0 (- 5.6) *10
March	55.2 (+8.3) *4	52.3 (+6.7) *7	55.9 (+8.1) *8
April	55.5 (- 0.9)	52.8 (- 1.8)	55.6 (- 1.3)
May	70.5 (+4.7)	67.8 (+4.0)	69.7 (+3.9)
June	77.2 (+3.0)	74.2 (+2.1)	76.0 (+1.6)
July	77.6 (- 0.8)	74.8 (- 1.3)	77.6 (- 0.9)
August	85.0 (+8.0) *1	80.7 (+5.9) *2	85.0 (+8.2) *1
September	76.3 (+6.2) *3	72.2 (+4.2)	74.5 (+4.9)
October	65.9 (+7.4) *2	62.7 (+6.1) *9	63.7 (+5.8)
November	48.9 (+1.3)	45.5 (- 0.4)	47.1 (- 0.3)
December	41.9 (+4.3)	40.1 (+3.8)	42.6 (+4.3)
Total year	60.2 (+3.3)	57.3 (+2.1)	60.0 (+2.8)

*.....Rank within the top 10 warmest months on record.

*.....Rank within the top 10 coldest months on record.

And for precipitation:

Monthly precipitation (Departure from Normal)	Louisville Standiford Airport	Lexington	Bowling Green
January	3.63 (+0.35)	3.37 (+0.03)	4.04 (- 0.11)
February	2.90 (- 0.35)	2.47 (- 0.80)	2.00 (- 2.15)
March	2.99 (- 1.42)	2.38 (- 2.03)	1.35 (- 3.62) *3
April	4.55 (+0.64)	4.12 (+0.45)	3.64 (- 0.35)
May	2.37 (- 2.51)	1.21 (- 3.57) *7	3.57 (- 1.79)
June	1.58 (- 2.18)	2.68 (- 1.90)	3.14 (- 1.15)
July	4.13 (- 0.17)	6.39 (+1.58)	2.02 (- 2.52)
August	1.61 (- 1.80)	4.00 (+0.23)	0.94 (- 2.42) *3
September	1.95 (- 1.10)	0.88 (- 2.23)	1.89 (- 2.24)
October	8.86 (+6.07) *1	6.53 (+3.83) *4	8.38 (+5.21) *1
November	2.24 (- 1.37)	2.75 (- 0.69)	3.95 (- 0.51)
December	7.52 (+3.83) *6	6.93 (+2.90) *6	7.10 (+2.04)
<i>Total year</i>	<i>44.53 (- 0.01)</i>	<i>43.71 (- 2.20)</i>	<i>42.02 (- 9.61)</i>

*Rank in the list for top 10 driest months.

*Rank in the list for the top 10 wettest months.

And for winds:

	Standiford Field (Louisville)	Lexington airport	Bowling Green airport
Yearly maximum sustained winds	48 mph (April 11 th)	38 mph (March 2 nd)	38 mph (March 1 st)
Yearly maximum wind gust	60 mph (April 11 th & Oct 18)	55 mph (Dec 31 st)	56 mph (June 28 th)

Winter

In general, this winter was uneventful. Just like last year, snowfall was sparse.

Snow total (Monthly average)		Louisville	Lexington	Bowling Green
January 2007		0.1 inch	0.4 inch	Trace
February 2007		4.4 inches	5.9 inches	4.7 inches
March 2007		Trace	Trace	Trace
April 2007		0.1 inch	0.8 inch	Trace
November 2007		Trace	Trace	0
December 2007		1.4 inch	Trace	Trace
2006 – '07 total		5.2 inches	7.8 inches	4.7 inches

2007's only snowstorm that produced 3 inches or more arrived in early February. This snow, which brought 6 inches to Cincinnati, was characterized as a southeastward moving Alberta Clipper.



February was an unusually cold month. Mean temperatures for the month across the region averaged from 5 to 9 degrees below normal. Lexington's mean temperature of 27.5 degrees made February 2007 the 9th coldest February on record. Bowling Green experienced its 10th coldest February with a monthly average of 33 degrees.

Spring

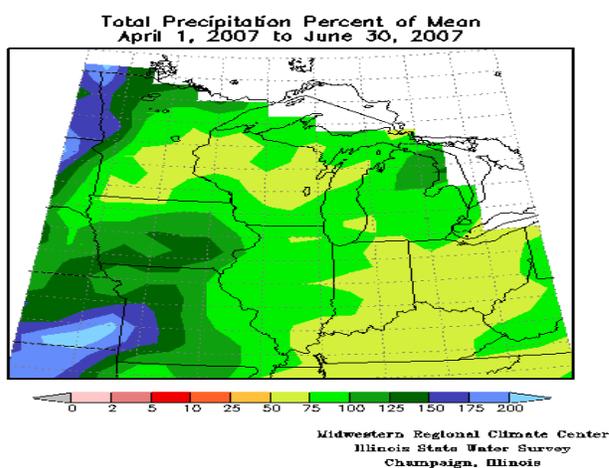
During the spring of 2007, precipitation deficits continued to grow across central and southern Kentucky. Bowling Green had rainfall deficits for each month. Farther north, Louisville and Lexington at least had near normal rainfall for the month of April.

A succession of cold fronts brought unseasonably cold air and several consecutive freezes from April 4 through the 10th. After two weeks of mild temperatures, many flowers and trees were in full bloom.

Extensive damage to fruit trees and vegetables ensued. Snow showers across the Bluegrass on April 7th brought localized snow amounts up to one inch. Record low high temperatures of 34 and 37 were set at Lexington and Louisville respectively on April 7th. A record low temperature of 23 was set at Bowling Green the morning of the 8th.

The most widespread and the only significant severe weather outbreak during the spring preceded a strong cold front on April 3rd. A long lived supercell crossed Larue...Hart...Taylor and Casey counties during the late afternoon hours. Softball sized (4.25 inches) hail fell near Priceville in Hart County. This storm produced the only two tornados of the year until October. An EF - 0 strength tornado briefly touched down northeast of Campbellsville. A stronger EF - 1 tornado with a path length of 13 miles tracked across Casey County from near Dunnville to Mintonville.

The graph below shows the precipitation deficits for late spring and early summer. Much of Kentucky received only 50 to 75 percent of normal rainfall from April through June.



Summer

Severe weather was sporadic during the summer season. Drought conditions worsened across our southern parts of the state. July brought some beneficial thunderstorms and near average rainfall to Louisville and Lexington. However August, like June, was hot and dry.

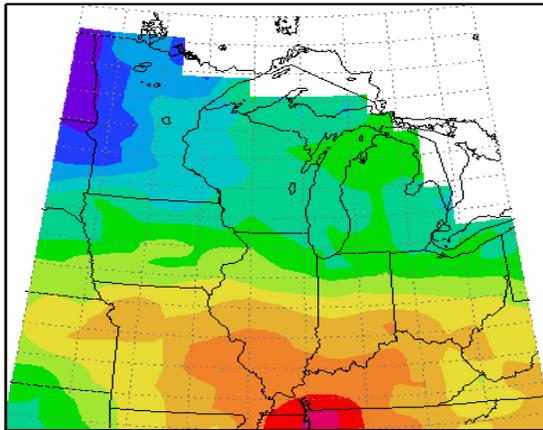
The summer's most notable storm developed east of Louisville June 5th. It became a rotating supercell that produced a swath of quarter to golf ball sized hail from Oldham county eastward through Franklin and Fayette counties.



Golf ball sized hail collected from a yard from the south side of Lexington.

The graph below shows the temperature departure for our region during the record hot month of August. The greatest departures...found across western Tennessee...corresponded with the greatest year-to-date rainfall deficits. This is a good example of how antecedent dry soils can exacerbate a hot spell.

Average Temperature Departure from Mean in Degrees F
August 1, 2007 to August 31, 2007



Midwestern Regional Climate Center
Illinois State Water Survey
Champaign, Illinois

August set many heat related records in central Kentucky:

Louisville:

The average temperature of 85 degrees at Standiford Field became the highest average temperature for any August...exceeding August of 1936 by 2 degrees.

Eight daily record highs were set during the month...including a tie for the all-time hottest temperature ever recorded in August...105 on August 12th.

Lexington:

An average monthly temperature of 80.7 gave Lexington its second warmest August on record...behind only the 81.5 degrees set in 1936.

Four daily record highs were set...including 102 degrees on the 16th of August.

Bowling Green:

2007 became the warmest August on record.

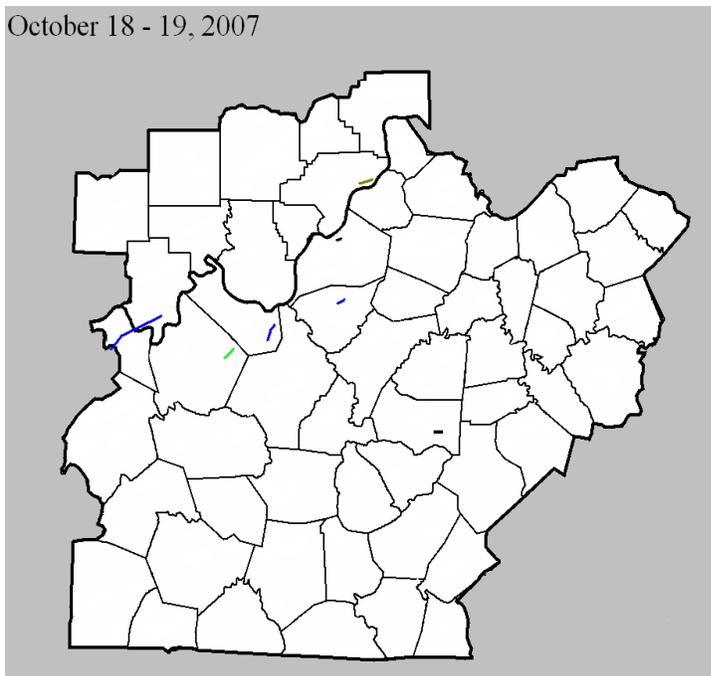
Five daily record highs set...including 106 on August 16th.

Nine days with a high temperature of 100 or more. This made 2007 3rd in rank...behind 11 days set in 1918...and 10 days in 1930.

Fall

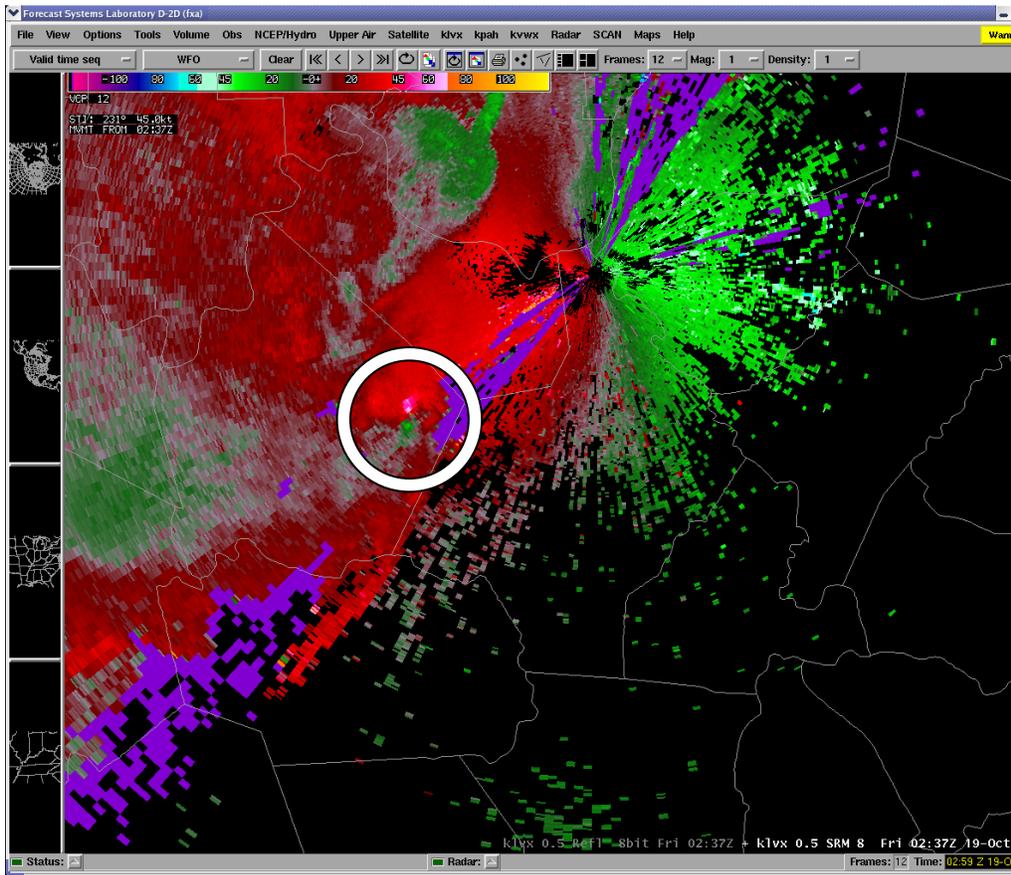
As can happen in the lower Ohio Valley, tornadoes often arrive outside of the expected peak season of March through May. This year, Kentucky's worst October tornado outbreak ever brought 8 tornadoes to the Louisville forecast area.

October 18 - 19, 2007



.....Tornado rankings.....

- EF - 3.....Clark County, Indiana
- EF - 1.....Hancock and Perry Counties
- EF - 2.....Breckinridge County
- EF - 1.....Meade County
- EF - 0.....Jefferson County, Kentucky
- EF - 1.....Bullitt County
- EF - 0.....Marion County
- EF - 1.....Dubois County, Indiana
(not shown)



This image shows the tight rotation associated with the EF – 2 tornado in eastern Breckinridge county. In this case, bright reds indicate velocities away from the radar...while greens show velocity towards the radar.

(Tornado location circled)

Like August, October was an exceptionally warm month. Lexington had its 9th warmest October on record...while Standiford Airport's average temperature made 2007 the 2nd warmest October ever.

Standiford Field tied its record high temperature ever recorded during the month of October when the airport reached 93 degrees on both the 7th and the 8th.

Lexington reached 91 degrees on October the 8th. This was only two degrees short of Lexington's record warmest October day ever...which was set on October 6th, 1941.

October, normally a dry month, bought 2007's heaviest single storm precipitation total. Surprisingly, these rainfall amounts were not associated with the remains of a tropical system. Widespread rains spread over a two day period brought 6.63 inches to Louisville on the 22nd and the 23rd. Bowling green also received its highest storm totals for the year, measuring 6.52 inches for this same two day period. Lexington received 5.09 inches from this same storm system. This one rainfall event practically ended the severe summer-long drought for all but the extreme eastern part of Kentucky.

Rainfall amounts in December totaled substantially above the monthly average. In fact, heavy rain in October and December brought yearly precipitation totals to near normal for Lexington and Louisville. Several record highs were set in December. Bowling Green set a record high on December 11th of 75 degrees. This smashed the old record of 72...set in 1894. Lexington's high of 70 that same day beat the old record high of 67...which was set in 1979. Louisville set two consecutive record highs of 74 on the 11th and 68 the 12th. The record of 68 on the 12th came at 1 am in the morning.