

# **The Top 5 Weather Events of the year, as voted on by the National Weather Service Staff are as follows:**

## **1. Flash Flooding and Widespread Wind Damage Occurring July 13<sup>th</sup> – 14<sup>th</sup>, 2015:**

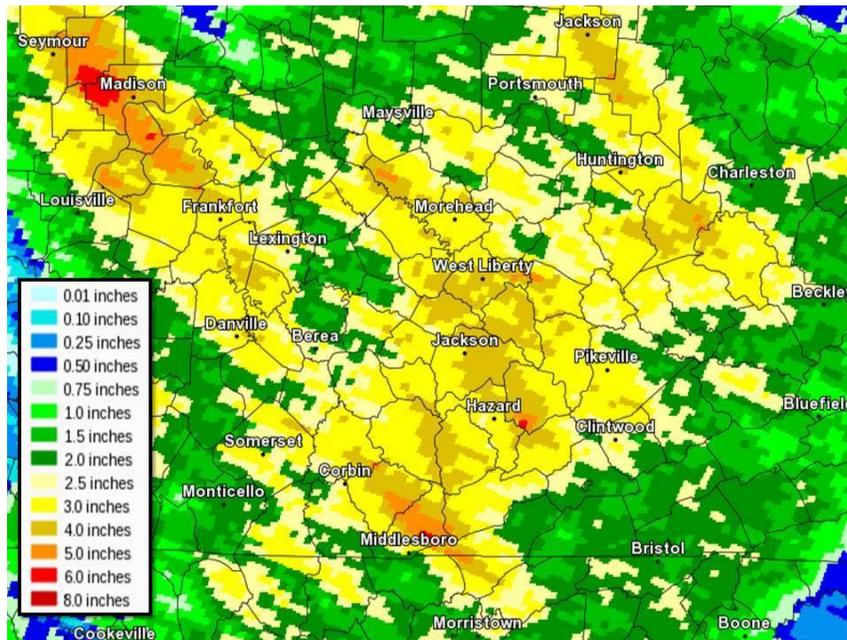
Widespread wind damage and deadly flash flooding occurred across eastern Kentucky as three distinct waves of heavy rain and thunderstorms affected the area from Monday afternoon July 13th through Tuesday evening July 14th.

The first round of thunderstorms caused severe flash flooding in three areas, the Flatgap/Redbush communities of Johnson County, Hays Branch of Triplett Creek in Rowan County and Buchanan Road in Fleming County. The hardest hit area was the Flatgap/Redbush community of Johnson County where devastating flash flooding occurred late Monday afternoon along Big Mudlick Creek and Ramey Branch. Four fatalities occurred and over 50 swift water rescues were performed in this area. Entire double wide houses were seen floating down Big Mudlick Creek and getting forced under a bridge. More than 150 homes were destroyed with as many as 500 homes being affected to some extent. While no rain gauges were located in this hard hit area, radar estimates indicate that around 3" of rain fell in an hour with brief rainfall rates of 6" to 7" per hour falling. Additional flash flooding occurred in Rowan County along US 60E northeast of Morehead where a CoCoRaHS observer measured 2.02" of rain in 30 minutes which caused extensive flooding of Hays Branch of Triplett Creek.

With the ground already saturated the next two rounds of storms overnight Monday night and then during the afternoon and evening hours on Tuesday caused additional flash flooding and wind damage across a widespread area. Storms Tuesday afternoon produced a 6.5 mile long swath of concentrated wind damage north of Flemingsburg, KY which demolished a mobile home and injured four people as winds reached 100 mph. An EF1 tornado touched down briefly inside this larger path of damaging straight-line winds.

Additional severe wind damage occurred near Morehead in Rowan County and scattered about in other communities across eastern Kentucky. All in all, there were around 200 different severe weather (flash flood, wind damage, hail greater than 1" in diameter, and/or tornado) reports called into the National Weather

Service office in Jackson, KY for the 36 hour period ending midnight Tuesday night. At one point, over 50,000 east Kentucky households were without power due to the storms with many remaining without power until Friday.



## 2 Day Rainfall Totals ending around 8 am Wednesday July 15th



Post flood aerial photograph of damage along Highway 172. Photo courtesy of Randy Campbell, Huntington District, Corps of Engineers.

For more information on this event:

[http://www.weather.gov/jkl/20150714\\_wxsummary](http://www.weather.gov/jkl/20150714_wxsummary)

## 2. Winter Storm and Flooding on March 3<sup>rd</sup> – 4<sup>th</sup>, 2015:

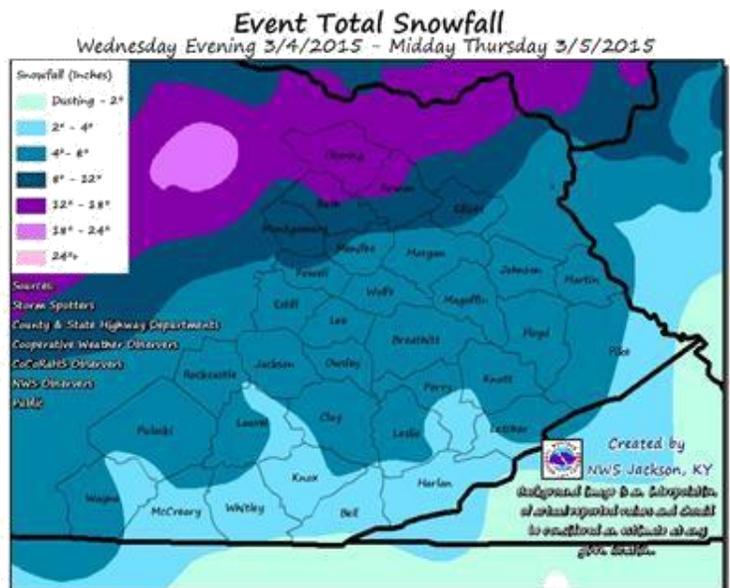
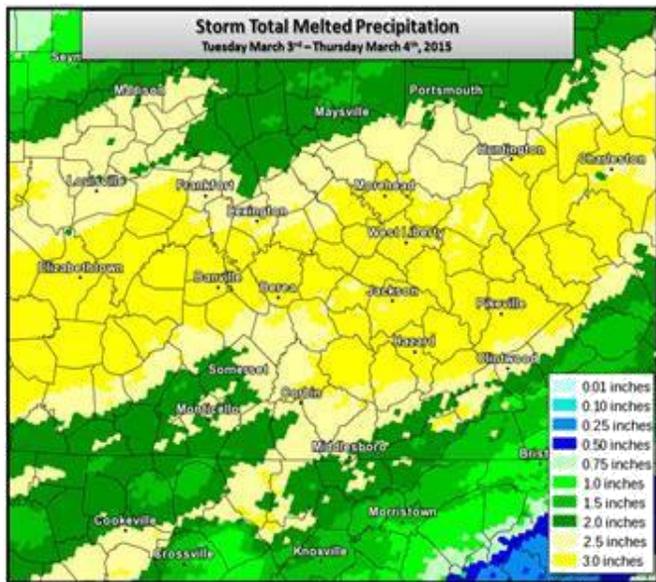
Rain overspread east Kentucky from late Tuesday March 3<sup>rd</sup> into the day of Wednesday March 4<sup>th</sup>, falling heavily at times. The rain then changed to sleet, some freezing rain and then snow from north to south Wednesday night into early Thursday morning March 5<sup>th</sup> and the snow fell heavily before diminishing late Thursday morning.

The rain, coupled with a melting high elevation snow pack containing considerable water content, caused extensive runoff and produced widespread flooding of small creeks and streams and poor draining areas during the day on Wednesday. Some of the hardest hit areas on Wednesday were in Harlan and Bell Counties, where runoff quickly pushed the creeks and streams there over their banks.

The flooding then progressed into our rivers resulting in some of the worst river flooding in over a decade. In fact, on the Big Sandy, several locations experienced the highest water since 1984. The most noteworthy crest occurred on the Cumberland River at Pineville, which reached the 3<sup>rd</sup> highest crest on record.

As area rivers were rising, the precipitation changed to sleet and then snow Wednesday night. An especially heavy band of snow set up from western Kentucky northeastward through central Kentucky into northeast Kentucky. By midday Thursday, over a foot of snow had fallen in this band mainly along and north of I-64 in east Kentucky. The snowfall amounts dropped significantly to the south with generally 2 to 4" having fallen near the Tennessee border.

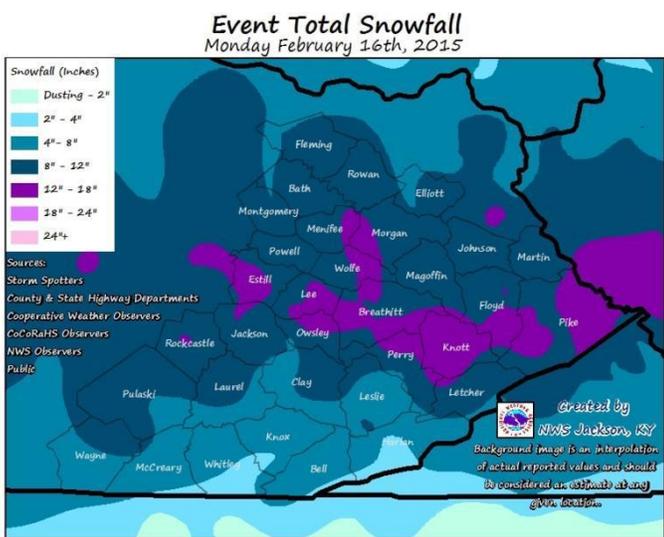
Following the snow, bitter cold temperatures invaded the state. **A new all-time state record for March with respect to low temperature was established Friday morning March 6<sup>th</sup> at Hillsboro, which is a National Weather Service cooperative station located in Fleming County, where the temperature fell to -16F.** The previous record low temperature for March for the state of Kentucky was -14F at Bonnieville on March 6<sup>th</sup>, 1960.



For more information on this event:

[http://www.weather.gov/jkl/20150305\\_floodwinterstorm](http://www.weather.gov/jkl/20150305_floodwinterstorm)

### 3. Snowstorm of February 16<sup>th</sup>, 2015:



Low pressure tracking across Mississippi, Alabama and Georgia brought a roughly 12 hour period of moderate to heavy snow to most of the state of Kentucky from Sunday night into Monday February 16, 2015.

The snow fell with temperatures in the teens to low 20s for most locations resulting in a powdery snow. Snowfall amounts of 8 to 12" were common across

eastern Kentucky, with a stripe of 12 to 18" across the heart of central and eastern Kentucky. For many areas, this was the most snow received in over a decade. A period of sleet and freezing rain mixing in with the snow cut into the snowfall amounts along the Tennessee border where 4 to 8" of snow was the rule.

For more information on this event:

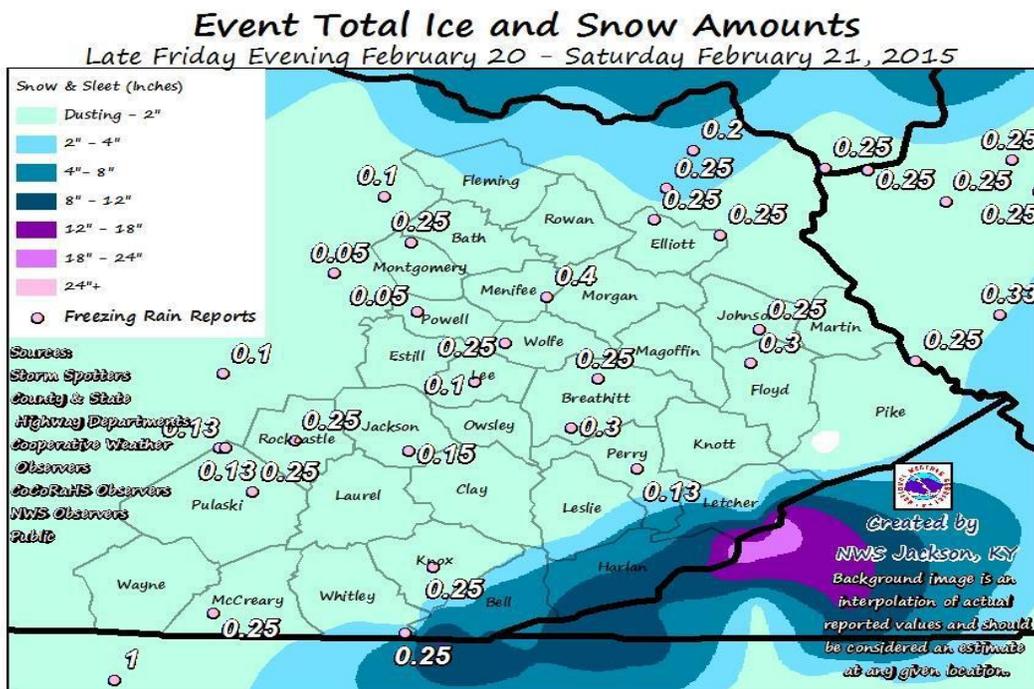
[http://www.weather.gov/jkl/20150216\\_snowsummary](http://www.weather.gov/jkl/20150216_snowsummary)

## 4. Winter Storm and Flooding of February 21<sup>st</sup>, 2015:

A complex and very strange winter storm unfolded across eastern Kentucky overnight Friday February 20th into Saturday February 21st. By the time all was said and done, east Kentucky had endured a wintry mix of snow, sleet and freezing rain, followed by heavy rainfall and flooding caused by ice jams, and several cases of roof collapses from the weight of the snow, ice and rain.

The precipitation began as snow and sleet, but quickly turned over to freezing rain during the early morning hours on Saturday as a thin layer of warm air moved over the area a couple thousand feet above the ground. Even though the temperatures warmed above freezing in most locations, freezing rain continued as ground temperatures remained below freezing into the day on Saturday. This created very hazardous driving conditions. In some areas, plow trucks equipped with chains were forced to pull off the road and wait for conditions to improve. The warm layer of air above the ground wasn't able to filter over Pine Mountain, and the bulk of the precipitation fell as a heavy wet snow east of the Pine Mountain ridge, including most of Bell County, Harlan County and parts of Letcher County. Here's a look at the final snow and ice accumulations from this event.

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The heavy amounts of snow, ice and rain fell onto a snow pack that approached a foot in some areas due to the previous snow events earlier in the week. The added weight caused several roofs to collapse, especially in Bell and Harlan Counties, and scattered instances of roof collapses in other areas.



**Building Collapse at Guthrie Memorial Airport near Harlan (photo courtesy WYMT)**

**For more information on this event:**

**[http://www.weather.gov/jkl/20150221\\_stormsummary](http://www.weather.gov/jkl/20150221_stormsummary)**

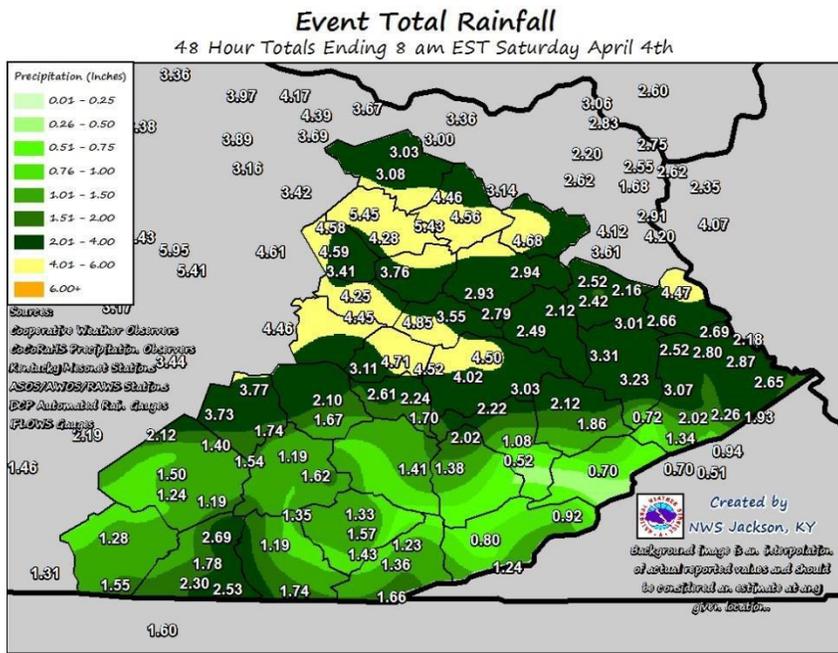
## **5. Flash Flooding of April 3<sup>rd</sup>, 2015:**

Clusters of showers and thunderstorms began affecting central and eastern Kentucky during the pre-dawn hours of Friday April 3<sup>rd</sup>. The initial complex of thunderstorms targeted areas from Louisville across the Bluegrass Region in parts of east-central Kentucky, including the Natural Bridge State Park area. While these storms were not severe, they did produce gusty winds which downed a dead tree onto a camping site in the Middle Fork Campground killing a female camper and severely injuring another person.

Torrential rainfall occurred with the storms, with many locations in a stripe from Estill, Powell, Lee, Wolfe and Breathitt Counties seeing from three to four inches of rain during the morning storms. This caused widespread flash flooding and a Lee County woman was killed as she tried to drive through flood waters.

After a brief break, additional showers and thunderstorms targeted locations from Lexington eastward along I-64 into the Gateway Region Friday evening. This again caused widespread flash flooding in a stripe from Montgomery, Bath, Rowan and Elliott Counties.

The map below shows how much rain fell based on an array of automated and human read rain gauges.



**For more information on this event:**

[http://www.weather.gov/jkl/20150403\\_rainfallsummary](http://www.weather.gov/jkl/20150403_rainfallsummary)

Additionally, there were 4 Federal Disaster Declarations issued for 4 of the 5 Top 5 Weather Events. The events that were included in these Declarations were:

1. Flash Flooding and Widespread Wind Damage, occurring July 13<sup>th</sup> – 14<sup>th</sup>, 2015.
2. Winter Storm and Flooding, occurring on March 3<sup>rd</sup> – 4<sup>th</sup>, 2015.
3. Snowstorm on February 16<sup>th</sup>, 2015.
4. Winter Storm and Flooding, occurring on February 21<sup>st</sup>, 2015.

**For more information on these reports:**

[http://www.fema.gov/disasters/grid/year/2015?field\\_disaster\\_type\\_term\\_tid\\_1=All](http://www.fema.gov/disasters/grid/year/2015?field_disaster_type_term_tid_1=All)

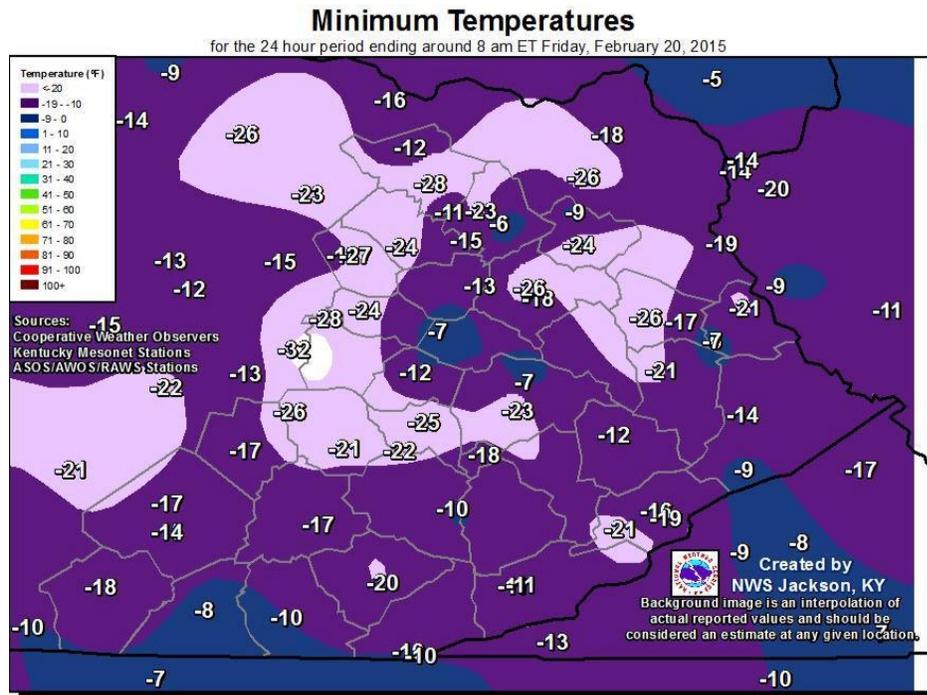
# Honorable Mentions, in no particular order:

## 1. Coldest Minimum Temperatures in 20 years:

Arctic high pressure combined with a deep snow pack to produce some of the coldest temperatures since January 1994 overnight and this morning. Several locations fell to 20 below zero and colder...temperatures not observed during the month of February in eastern Kentucky since 1899.

As for records, the London Corbin Airport fell to 17 below zero. This establishes a new all-time February record low temperature. The previous record low for the month was 11 below zero set on February 1, 1971. Records for the London Corbin Airport date back to 1954.

Here at NWS Jackson, our low was a comparatively balmy 7 below zero. While this establishes a new record low for the date and is also the coldest temperature recorded so late in the season, it does not set a new monthly record low temperature. That record remains 8 below zero set on February 4, 1996. Records at NWS Jackson date back to 1981.



**For more information on this event:**

[http://www.weather.gov/jkl/20150220\\_coldsummary](http://www.weather.gov/jkl/20150220_coldsummary)

## **2. Coldest March Minimum Temperature ever Recorded in Kentucky – Hillsboro, Kentucky on March 6<sup>th</sup>, 2015:**

Following the early March flooding and snow named as our Number 2 weather event of 2015, bitter cold temperatures invaded the state. **A new all-time state record for March with respect to low temperature was established Friday morning March 6th at Hillsboro, which is a National Weather Service cooperative station located in Fleming County, where the temperature fell to -16F.** The previous record low temperature for March for the state of Kentucky was -14F at Bonnieville on March 6th, 1960.

For more information on this event:

[http://www.weather.gov/jkl/20150305\\_floodwinterstorm](http://www.weather.gov/jkl/20150305_floodwinterstorm)

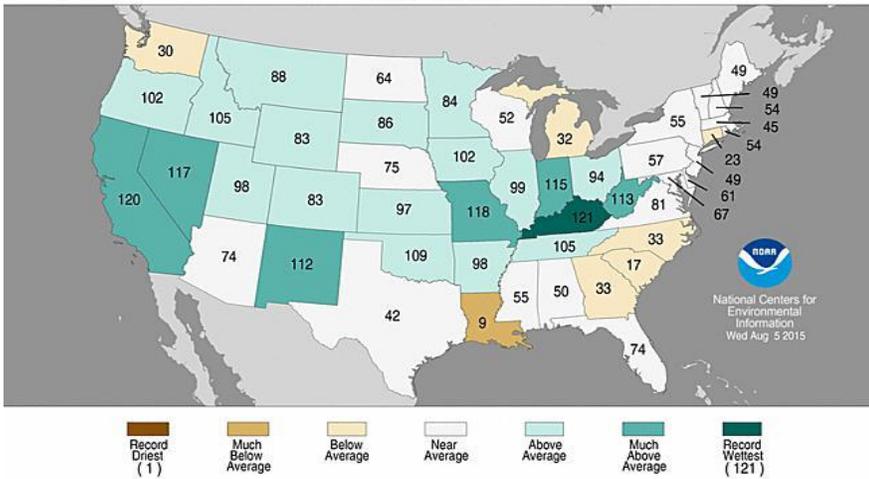
## **3. Wettest July on Record for Kentucky:**

July 2015 was the wettest July on record for the state of Kentucky. New monthly precipitation records for July in eastern Kentucky include:

- 12.64 inches at Cave Run Lake
- 11.23 inches at London
- 11.12 inches at Buckhorn Lake
- 11.10 inches at Island City
- 10.64 inches at Hazard Water Plant
- 10.18 inches at Skyline
- 9.24 inches at Carr Creek Lake

Jackson had its second wettest July with 8.87 inches of rain. Williamsburg had its fourth wettest July with 10.16 inches.

Statewide Precipitation Ranks  
July 2015  
Period: 1895-2015



For more information on this event:

<http://www.weather.gov/jkl/20150807wettestjuly>

#### 4. Warmest December on Record:

With the recent stretch of record breaking warmth, we are now on pace for the warmest December in recorded history. This record will be credited to the numerous record high temperature records set during the month. Here is a summary of the record highs for London and Jackson, KY during the month of December:

	London, KY		Jackson, KY	
	New Record	Old Record	New Record	Old Record
<b>Saturday (12/12)</b>	<b>71</b>	<b>67 (1972)</b>	<b>71</b>	<b>65 (2006/2007)</b>
<b>Sunday (12/13)</b>	<b>67</b>	<b>67 (1984/2007)</b>	<b>70</b>	<b>67 (1984)</b>
<b>Wednesday (12/16)</b>	<b>69</b>	<b>68 (2006)</b>	<b>70</b>	<b>67 (2001)</b>
<b>Thursday (12/24)</b>	<b>72</b>	<b>72 (1964)</b>	<b>72</b>	<b>68 (1982)</b>
<b>Saturday (12/26)</b>	<b>71</b>	<b>70 (1987)</b>	<b>68</b>	<b>61 (2008)</b>
<b>Sunday (12/27)</b>	<b>75</b>	<b>70 (2008)</b>	<b>77</b>	<b>71 (2008)</b>
<b>Monday (12/28)</b>	<b>72</b>	<b>72 (1984)</b>		

Here is how we ranked with respect to average temperature at London and Jackson, KY:

## Record Breaking December Warmth



London, KY		
Rank	Avg. Temp	Year
1	49.4	2015
2	46.9	1956
3	46.5	1971
4	46.4	1984
5	46.2	1982
6	44.7	2007
7	43.9	2012
8	43.9	1987
9	43.7	2001
10	43.6	1990

Period of record: 1954 to 2015

Jackson, KY		
Rank	Avg. Temp	Year
1	51.0	2015
2	46.6	1984
3	46.1	1982
4	45.2	2001
5	44.6	2012
6	43.6	2006
7	43.2	2007
8	43.2	1998
9	43.1	2011
10	43.0	1990

Period of record: 1981 to 2015



## 5. Latest Measureable First Snowfall:

The Jackson Weather Office has set a new record for the latest measureable snowfall:

### Jackson, KY - Latest First Measureable Snowfall for a Snow Season

Rank	Date	Snowfall
1	TBD (2016)	TBD
2	12-29(2001)	1.2
3	12-24(1990)	0.3
4	12-23(1998)	0.5
5	12-21(1999)	0.1
6	12-20(1985)	2.8
6	12-20(1983)	0.3
8	12-15(1981)	0.8
9	12-11(2005)	0.3
9	12-11(1994)	0.2

Data Records 1981 to Present