



**MIAMI-SOUTH FLORIDA**  
**National Weather Service**  
**Forecast Office**  
<http://www.weather.gov/miami>



**2017 Severe Weather Awareness Week**

**Monday, January 23<sup>rd</sup>: Lightning Awareness Day**

Although lightning fatalities have decreased significantly over the last several decades (Figure 1) due in large part to greater awareness and alerting systems as well as enhanced educational efforts, 2016 saw an increase in lightning deaths nationwide (Figure 2). In Florida alone, 9 people died as a direct result of lightning strikes, the most of any state and the highest in any year since 2007.

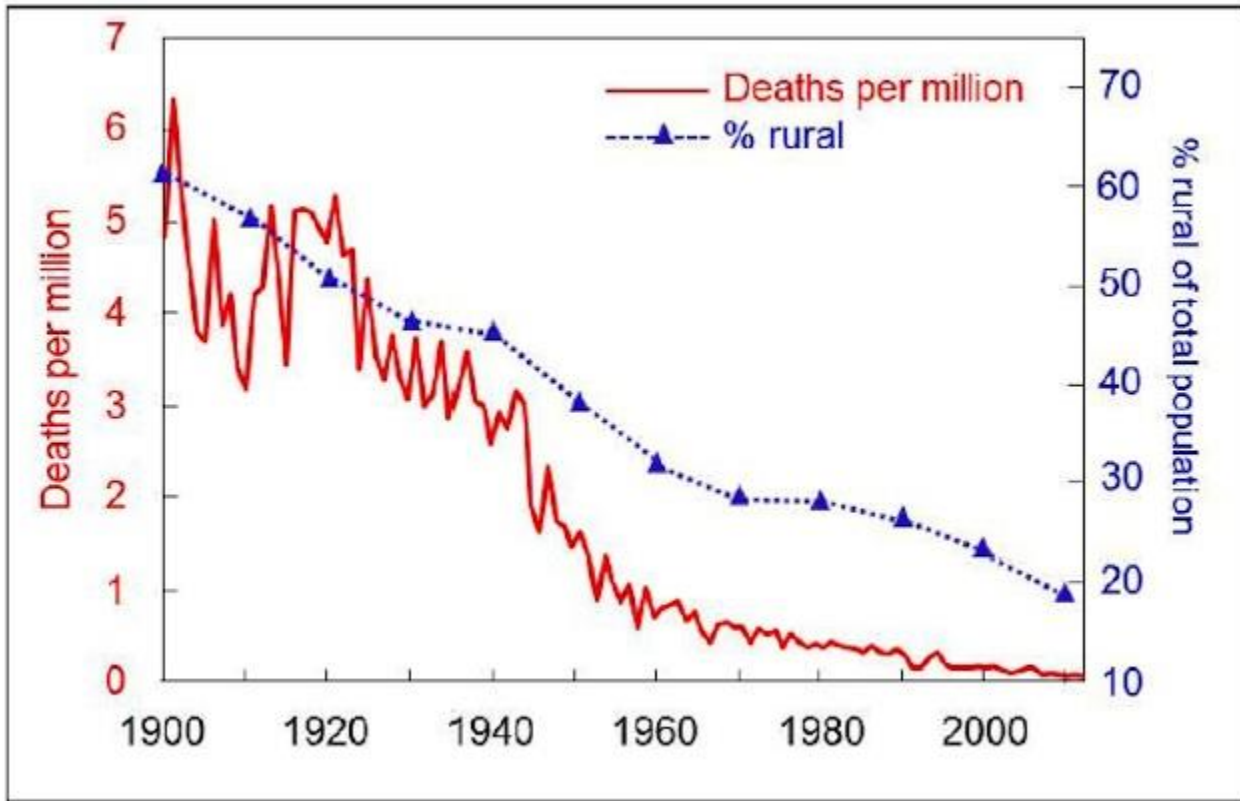
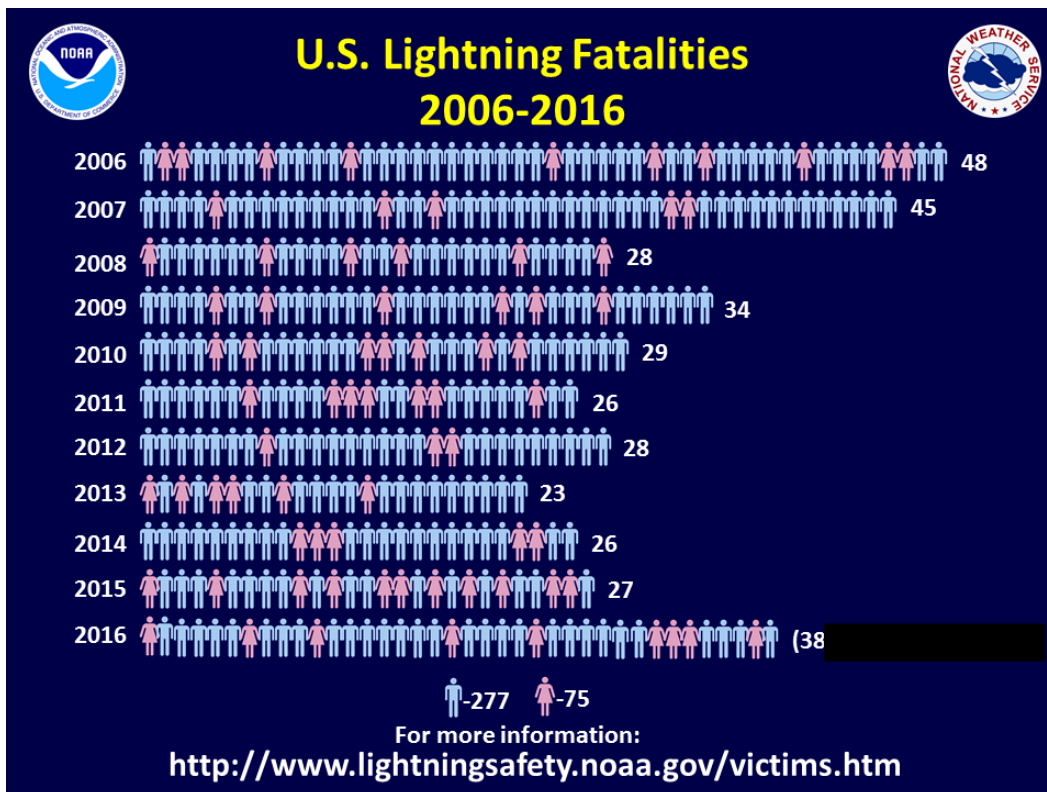


Figure 1: U.S. lightning fatalities in deaths per million since 1900. From Weather Underground. Credit: Ron Holle, updated from López and Holle 1998.



One (1) death attributed to lightning occurred in South Florida in 2016 when a man was struck under a tree in his front yard in Boynton Beach on April 15<sup>th</sup>. An additional 10 people were injured from lightning strikes. Damage to structures totaled over \$260,000.

Lightning can occur in any month in South Florida, with the highest frequency during the summer months. Data from 1997-2012 show that Florida is the “lightning capital” of the United States (Figure 3). In an area so vulnerable to lightning such as South Florida, it is critically important to remember one basic safety rule that can keep you safe when lightning roars.

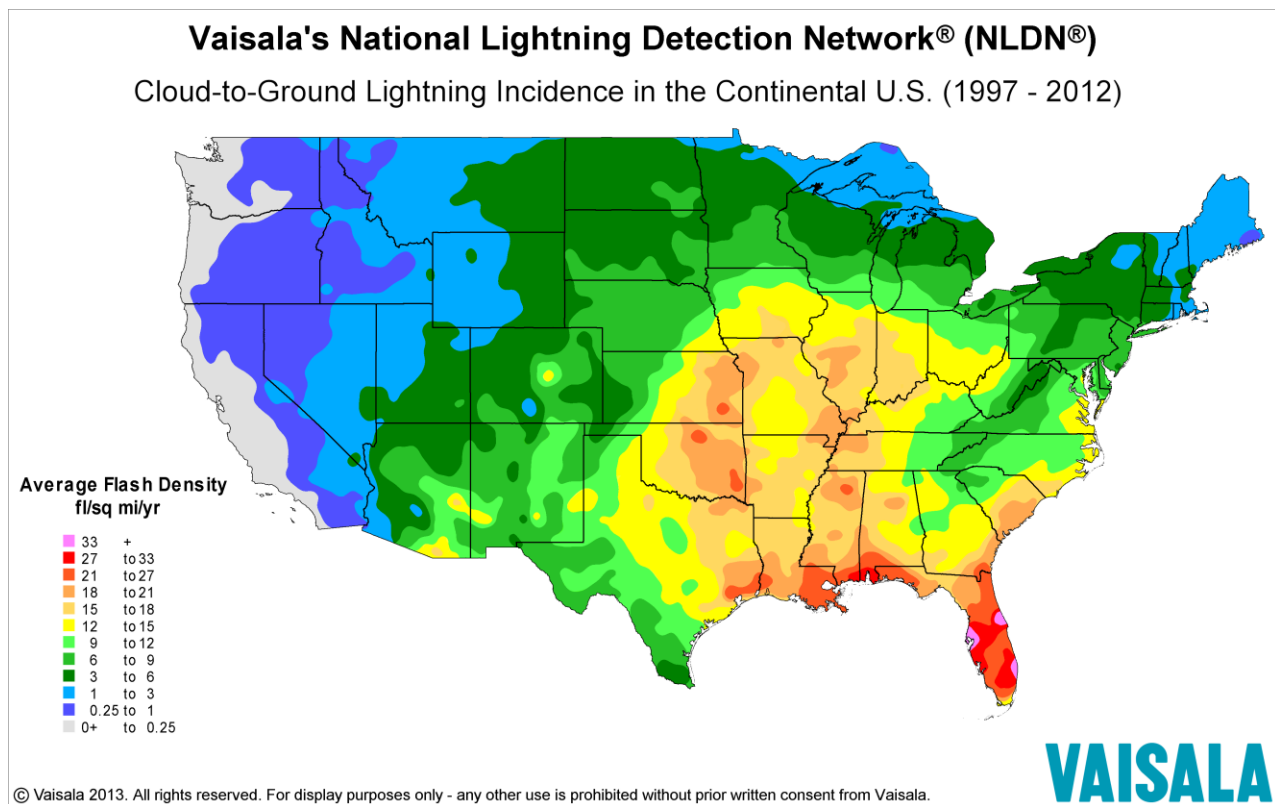


Figure 3: Cloud-to-ground lightning from 1997-2012, courtesy of Vaisala.



This important rule is: **when thunder roars, go indoors!** Even though lightning hits buildings, including homes and schools, people inside are generally protected from the dangerous effects of the lightning strike. The exception to this is electronic equipment and bathtubs which can conduct the electrical charge of the lightning inside the home.

**No place outside is safe from lightning.** Virtually all recent South Florida lightning-related deaths and injuries occurred outside. A metal-enclosed vehicle is a good alternative, but only if no enclosed buildings are nearby. The greatest numbers of people in Florida are struck while near or on a body of water such as beaches, lakes and swimming pools, such as what occurred in Marco Island on August 24<sup>th</sup> when three people were stuck on the beach. Many others are struck while standing under trees. Another vulnerable location is an open area with few trees such as construction sites, ball fields, playgrounds or golf courses. School-related activities also rate high in lightning vulnerability. These include walking to and from school and after-school events.

The large number of high rise buildings in South Florida also puts construction workers and even residents in upper floors at a greater risk since tall objects are struck by lightning much more frequently than objects close to the ground. One such example of this occurred in Miami on September 20<sup>th</sup> when a construction worker was struck on the 7<sup>th</sup> floor of a building under construction.

Studies have shown that teenage boys are the most likely group to be killed by lightning in Florida. The age group from 10 to 19 years of age has the greatest number of deaths, followed by those in their 30s and 20s. The number of 10 to 19 year old lightning deaths is greater than the number of lightning deaths of those 40 and older. Overall, more men are struck by lightning than women.

## **DON'T JUST LOOK STRAIGHT UP**

Lightning doesn't just strike when/where it's raining. Lightning commonly strikes several miles away from the heavy rain area of the thunderstorm, and in some cases can strike up to 10 miles away or more! This type of lightning is misleadingly referred to as "dry lightning" or "bolts from the blue", but they actually originate from the side of a thunderstorm cloud and are just as deadly as those that occur in the middle of a heavy downpour. Therefore, the greatest danger often comes with the first or last flash because that's when people least expect lightning to strike. This is why it is so important to head indoors as soon as the first clap of thunder is heard. Darkening clouds are usually the first sign that lightning may strike nearby. Wait in a safe indoor location until 30 minutes after the last thunder is heard or the all-clear signal is given at parks, beaches and other public locations. Pay attention to the many lightning detection sirens located at public parks, beaches and golf courses, and immediately head indoors once a lightning alert siren goes off.

## **BE INFORMED. BE PREPARED.**

If planning to be outdoors, stay informed of the latest weather conditions by listening to NOAA Weather Radio or by monitoring the latest forecasts via TV, radio, personal computers and mobile devices. Have a safe indoor location planned and be prepared to take shelter inside an enclosed building if a thunderstorm approaches or forms nearby.

Although the National Weather Service does not issue specific lightning warnings, products such as the Hazardous Weather Outlook and the Surf Forecast describe the daily lightning danger in South Florida on a scale ranging from none, to slight, to moderate to high. When a storm producing excessive lightning is observed or is imminent, a Special Weather Statement/Significant Weather Advisory is issued to alert of its location. Checking these products before venturing outside can make the difference between life and death.

For more lightning information, as well as daily hazardous weather outlooks which indicate the threat of lightning over South Florida, as well as special weather statements, please visit the National Weather Service in Miami website at [www.weather.gov/southflorida](http://www.weather.gov/southflorida).

For general lightning safety tips as well as educational material, please visit the National Weather Service lightning safety page at [www.lightningsafety.noaa.gov](http://www.lightningsafety.noaa.gov).