



How Common Are Multi-Fatality Lightning Incidents In The United States?

John Jensenius
Lightning Safety Specialist
National Lightning Safety Council

With the recent tragic lightning incident near the White House last week, you may be wondering how frequently multiple-fatality lightning incidents occur in the U.S. While two-fatality lightning incidents are not uncommon, 3-, 4-, and 5-fatality incidents are fairly rare. And the most recent 3-, 4-, and 5-fatality incidents have one feature in common -- trees. All of the victims were under trees that were struck by lightning.

Why is sheltering under a tree so dangerous? As the initial lightning channel moves rapidly from the cloud toward the ground, it is simply looking for the closest connection. That closest connection is usually one of the taller objects in the immediate area, which is often a tree. While tall objects don't attract lightning, they are more likely to be struck. When lightning strikes a tree, the charge doesn't penetrate deep into the ground, but rather spreads out along the ground surface in something called ground current. That makes the entire area around a tree dangerous and anyone standing under or near a tree is vulnerable to this potentially deadly ground current. In addition, for those standing within several feet of a tree, the lightning charge, or a portion of the charge, can jump from the tree directly to the person.

So how often do we see multiple-fatality events? During the past 10 years (2012-2021), there have been 14 multi-fatality incidents in the U.S., all involved two fatalities. On average, the U.S. has 1 to 2 incidents with two fatalities per year. The most recent 2-fatality incident occurred about two years ago on August 5th, 2020 with a second 2-fatality incident on July 6th of that year.

<http://lightningsafetycouncil.org/LSC-2020-Fatalities.html>

Prior to last week's incident near the White House, the most recent 3-fatality incident was more than 18 years ago on June 27, 2004, when 3 people were struck and killed under trees at Bedford Dam State Park in Georgia. They had been on a beach at the park and were reportedly seeking shelter and under trees at the time of the lightning strike. Six others were injured.

<https://www.foxnews.com/story/lightning-strike-kills-thre>

The most recent 4-fatality lightning incident occurred almost 20 years ago on August 23, 2002. The victims all were attending a funeral in Willard, Missouri, and reportedly sought shelter under a tree when it started to rain.

https://www2.ljworld.com/news/2002/aug/24/lightning_kills_three/

<https://www.theintelligencer.com/news/article/Fourth-Mo-Lightning-Victim-Dies-10548475.php>

It's been more than 28 years since there was a 5-fatality lightning incident in the U.S.. The most recent was June 16, 1994, in Warm Springs, Virginia, when a family, who had been fishing, took shelter under a tree.

<https://apnews.com/article/456114a4af19c5cab0353a3be1ab0eb9>

These incidents underscore the need to seek shelter early, well before the rain arrives. If you wait until it starts raining, you're putting your life in jeopardy. Lightning can strike 10-miles from the rain area in a thunderstorm. If you can hear thunder, you are within striking distance of the storm and need to get to a safe place immediately.

The National Lightning Safety Council recommends:

- Listen to the forecast and plan activities to avoid the lightning threat.
- If thunderstorms are predicted, consider cancelling or postponing outdoor activities, especially if they wouldn't be able to get to a safe place quickly.
- While outdoors, monitor weather conditions.
- If the sky looks threatening or you hear thunder, go to a safe place immediately. Don't ignore any signs of a developing or approaching storm.
- Remain inside the safe place for 30 minutes after the last thunder.

When Thunder Roars, Go Indoors!