

Weathering the storm of lightning claims (to the tune of \$10 billion)

JUL 14, 2015 | BY [SCOTT LACOURSE](#)



Investigating lightning claims can be problematic and subjective, but technology can help confirm strikes in a particular area. (Photo: Dudarev Mikhail/Shutterstock)

Lightning strikes the ground in the U.S. an estimated 25 million times every year, carrying between 100 million and 1 billion volts, and billions of watts of energy. A single lightning strike can heat the air around it to between 18,000 and 60,000 degrees Fahrenheit, according to the [National Severe Storms Laboratory](#). This awesome force of nature can be very beautiful, but it's also deadly and destructive.

The cost of lightning strikes

In 2014, the [Insurance Information Institute](#) recorded that lightning strikes killed 26 people, and in 2013 accounted for an estimated \$674 million in Homeowners insurance losses. They noted that the [number of claims paid was falling](#) (partly due to more

widespread use of lightning protection systems), but the average cost of claims was rising (along with the value of electronic equipment). The average cost of a claim in 2012 was \$6,400.

However, determining the true cost of lightning is very difficult. In addition to industrial and household fires, lightning causes 15% of wildfires but is responsible for 60% of the acres of territory burned by them, reports the journal [Science](#). In addition to the damage caused to electronics in homes and offices, lightning is responsible for 30% of the power outages, costing up to \$1 billion a year says the [National Lightning Safety Institute \(NLSI\)](#). Taking these loss events and many more into account, the NLSI has estimated the total U.S. lightning losses and costs may be in excess of \$8 to \$10 billion a year.

To make matters worse, a [recent study by ClimateCentral.org](#) has warned that for every degree Celsius increase in global warming there could be a 12% rise in the number of lightning strikes. This could amount to a staggering 50% increase by the end of the century.



Photo: Frank L Junior/Shutterstock

Capturing lightning in a bottle

Historically, investigating claims of damage due to lightning has been a highly problematic and often subjective matter. A local thunderstorm may bring a flood of claims of dubious veracity. Witnesses or policyholders may report hearing a thunderclap and genuinely believe that lightning has struck.

When [Vaisala Inc.](#), experts in the manufacture of meteorological equipment and the current operators of the National Lightning Detection Network reviewed 14,000 claims, they found that in approximately 30% of the cases there was no lightning strike recorded in the vicinity. Advances in lightning detection and recording have armed claims adjusters with the detailed and specific information they need to begin their investigation.

The National Lightning Detection Network (NLDN) has been in operation since 1989, but until the 1990s, strike locations were only accurate to 10km. Now, detection rates are estimated at between 80-90% and locations are accurate to 500m. Doppler radar is another invaluable tool to confirm the presence of a lightning strike. However, like many complex new technologies, it is wise to enlist the help of a qualified forensic meteorologist who can effectively interpret the results and correlate them with other sources of information regarding the weather.



Photo: Mihai Simonia/Shutterstock

The importance of investigation

Technology which can confirm the presence of a lightning strike is only part of the picture for claims adjusters. In addition to the immediate risk that a fire will be started, lightning can cause massive power surges which destroy electrical equipment and powerful shock waves capable of fracturing walls, windows and even foundations. This damage is not always immediately apparent, and many policies exclude electrical surges and shock waves which originate outside the property. Only a thorough investigation will confirm that lightning is the cause of the loss, and that the loss is covered by the policy.

Lightning damage expert LM Griswold has noted that as soon as lightning is mentioned, many insurance carriers pay out on total loss HVAC claims without any investigation – a detail not lost on unscrupulous HVAC companies. The 2015 Annual Claims Report produced by HVAC Investigators recorded that when claims were subsequently subjected to an independent, field-based investigation, more than 44% had been incorrectly attributed to lightning. In some cases, damage was due to wear-and-tear, in others there was in fact no damage, and many of the claims were withdrawn.

See related article: [Here's what every adjuster should know about lightning claims](#)

The perfect storm

With an increasingly turbulent climate and an unsteady economy, claims adjusters and investigators may find themselves weathering the perfect storm of rising claims costs, increased levels of fraud and increased incidence of loss events. However, armed with new weather-measuring technologies, and employing good old-fashioned investigative skills, there is nothing to fear. The clouds will soon clear and the sun will shine again.

Scott Lacourse is a director at [Enservio](http://www.enservio.com), www.enservio.com, a provider of contents claim software and services that bring value to the entire spectrum of contents claim management.