



Lightning Protection: OLD MYTHS & NEW REALITIES

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In honor of the summer storm season, I am centering this Tech Tip on the protection of person and property through the dangers of electrical storms. Due to the frequency of these storms, we sometimes forget about the precautions to use.

First some general comments about lightning. It has its own agenda. It is entirely capricious, random, and unpredictable. Man's attempts to fit lightning into a convenient box, with Codes and Standards to describe its behavior, are a best guess. The system of conventional lightning rods as commonly employed does represent the best method for providing a preferred pathway to ground.

Second, lightning safety for a group or large-scale outdoor event is very difficult-- maybe impossible-- to accomplish. Lightning fatalities for golfers are 5% of total deaths.

Third, the myths about lightning persist:

- MYTH: LIGHTNING NEVER STRIKES TWICE Reality: It hits the Empire State Building about 25 times a year.
- MYTH: RUBBER TIRES WILL INSULATE ME FROM LIGHTNING. Reality: After travelling miles through the air, a few inches of rubber means nothing at all.
- MYTH: LIGHTNING CAN BE PREVENTED. Reality: This is unconfirmed and sheer advertising.

REMEMBER THE 30/30 RULE If you hear thunder in less than 30 seconds after the flash, seek shelter. Wait 30 minutes after the last lightning flash/thunder before you resume outdoor activities.

"If you can hear it, clear it. If you can see it, flee it."

Lightning is arbitrary, random and unpredictable.



Recommended Personal Safety Guidelines:

1. PLAN in advance your evacuation and safety measures. When you first see lightning or hear thunder, activate your emergency plan. Now is the time to go to a building or a vehicle. Lightning often precedes rain, so don't wait for the rain to begin before suspending activities.
2. If OUTDOORS ... Avoid water. Avoid the high ground. Avoid open spaces. Find shelter in a substantial building or fully enclosed metal vehicle with windows completely shut. If lightning strikes nearby when you are outside you should:
 - Crouch down ... feet together and hands over ears
 - Avoid proximity (minimum 15 ft.) to other people
3. If INDOORS ... Avoid water. Stay away from doors and windows.
4. ELECTRONICS...Do not use the telephone. Take off headsets. Turn off, unplug, and stay away from appliances, power tools and TV sets. Unplug your computer to ensure its ultimate safety.
5. SUSPEND ACTIVITIES for 30 minutes after last observed lightning strike or thunder.
6. INJURED PERSONS do not carry an electrical charge and can be handled safely. Apply first aid and call 911 or send for help immediately.

Lightning Hazards:

There are 5 mechanisms of lightning related injury and death: direct strike, touch voltage, side flash (or surface arc), unconnected upward discharge, and side voltage. About half of cloud-to-ground flashes form two or more terminations when striking earth. Lightning is known to strike tall objects considerably below their tops.

Recommended Company Safety Guidelines:

As with your own safety, you should also insure the protection of your computer network and servers. An Uninterrupted Power Supply (UPS) system will protect your network from power surges, and in the event of a power outage, it will provide you with the means to correctly shut-down the system. Another important aspect lies in the copying of corporate data. By creating a back-up of significant data, your organization is protected from any loss in case of unexpected power outages.

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