

SAF-112
LIGHTNING SAFETY

Modified from original Mecklenburg County ARES training article by Earl Pack-AE5PA

Avoid Dangerous Situation

- Summer time is peak season for lightning but lightning strikes occur all year.
- The 30 year average weather related death toll places lightning in 3rd place behind Heat and Flooding. In the US over 60 people are killed by lightning each year. People who have been struck by lightning report long-term symptoms of: memory loss, attention deficit, sleeping disorder, and numbness and pain.
- Lightning deaths and injuries occur most often when people are caught outdoors. Most common activities where people are in harms way are: boating/fishing, standing by a tree, golfing, playing sports in a field, talking on the phone, swimming, bike riding, mowing the lawn.
- Keep an eye on the sky: look for darkening skies, flashes of light, or increasing wind. Listen for thunder. Thunderstorm activity in Texas has been quite active the past few years.
- Lightning strikes have been recorded as far as 10 – 15 miles from the thunderstorm. A distance of 15 miles is about as far as you can hear thunder. A rule of thumb for safety is a distance of at least 6 miles. If you can hear thunder you are close enough to be struck by it. Go to a safe shelter immediately. Train children that “When Thunder Roars, Go Indoors”.
- Listen to 740AM KTRH for weather announcements. Subscribe to weather alerts on you smart phone.
- Harris County Skywarn use: 146.840-, 146.920-, 443.825+ (all pl 103.5).

Shelter from the lightning

- Shelter in an enclosed building or vehicle. Keep car windows closed and don't choose an automobile with a convertible roof. Do not shelter in partially enclosed buildings. Avoid any tall isolated object. Lightning can strike your car but the metal frame provide a significant amount of protection.
- Telephone lines, electric lines, antenna cables, and metal pipes can conduct lightning. Unplug appliances. Avoid using land telephone lines, any electrical appliances and computers.
- Do not take a bath or shower, or be near running water for any purpose during a thunderstorm.
- Stay away from windows and doors.
- You may want to turn off major power consumers like air conditioner and refrigerators. Power surges in the electrical transmission lines can damage this equipment.
- Draw blinds and shades over windows. If windows break due to objects blown by the wind, the shades will help prevent glass from shattering into your home and injuring you or your family.
- If you are caught outdoors in the open, go to a low-lying, open place away from trees, poles, or metal objects. Make sure the place you pick is not subject to flooding.
- Be a very small target! Squat low to the ground. Place your hands on your knees with your head between them. Make yourself the smallest target possible.
- Do not lie flat on the ground--this will make you a larger target!

After the storm

- Stay away areas damaged by the storm. Downed power lines should always be considered hazardous.

If someone is struck by lightning

- Lightning victims do not have an electrical charge and must be attended to immediately.
- Call for help. Get someone to dial 911.
- The injured person has received an electrical shock and may be burned, both where they were struck and where the electricity left their body. Check for burns in both places. Being struck by lightning can also cause: cardiac arrest and irregularities, nervous system damage, broken bones, and loss of hearing or eyesight.
- Give first aid. CPR will most likely be needed. If breathing has stopped begin rescue breathing. If the heart has stopped beating, begin chest compressions. If the person has a pulse and is breathing, look and care for other injuries.

Protecting your Radio Equipment from lightning. There is a very good set of articles on the Harris County ARES Training page about this subject.

- Disconnect antennas from your radios to prevent damage.
- Install a station ground to divert lightning to earth ground.
- Antenna masts and towers should be properly grounded.
- Use an inside antenna or HT during thunderstorms.
- Stay off your radio and outside of your Shack during the storm.