Lightning Detection

Lightning can be anticipated with an approaching thunderstorm, but cannot be predicted with accuracy. A lightning strike cannot be prevented. The Flash-to-Bang-Method most people rely on is only sometimes accurate. The primary reason is because thunder can typically only be heard when the lightning strike is 2 to 4 miles away. You are in danger of being struck by lightning when the leading or trailing edge of the storm cell is 8 miles away. That's why 60% of people struck by lightning have no prior visual or audible warning. 90% of people struck are struck under blue skies. 30% are struck before the storm is overhead. 60% are struck after they think the storm has passed and it's safe to go back outside.

Lightning can travel sideways for up to 10 miles, so it is possible for a, **"bolt from the blue",** on the edge of a storm. At least 10% of lightning occurs without visible clouds in the sky. If you can hear thunder, lightning is close enough that it could strike your location at any moment. Go to a safe shelter immediately. If you wait until you see lightning, it may be already too late to take action. Most people struck by lightning are not in the rain!

Early recognition that lightning is approaching provides the best defense. Relying solely on personal observation of lightning is not adequate. Additional information including detecting actual lightning strikes and monitoring the range at which they're occurring is required to ensure consistent, accurate, and adequate advance warning.

There are three primary types of detectors: ground-based systems using multiple antennas, mobile systems using a direction and a sense antenna in the same location (often aboard an aircraft), and space-based systems. Lightning detectors and weather radar are used together to detect storms. Lightning detectors indicate electrical activity, while weather radar indicates precipitation. Both phenomena are associated with thunderstorms and can help indicate storm strength.

Lightning Detectors

It is possible for a lightning detector to miss a strike if it is in the presence of interference, if it is processing a strike while another strike occurs, or if the strike is a cloud-to-cloud strike. The careful user will use a lightning detector as a trending device - knowing what range of distance the storm is in, watching to see if the storm is approaching, and seeking shelter when the storm is within 6 miles.

"ThunderBolt" Detector, 75 mile range, immediate response to a strike, calculates approach speed & expected arrival time on LCD display, Water Resistant. $560.

http://tinyurl.com/n5nx9xc

http://www.youtube.com/watch?v=-hOwiC5VOME

"StrikeAlert HD" Lightning Detector, immediate response to a strike, 40 mile range, 360° tracking, 1 hour storm trend, 80 hours operation, 2 AA batteries, audible & vibrate warnings $200.

http://www.strikealert.com

"Strike Alert II" Lightning Detector, 40 mile range, immediate response, LED lights & audible alarm at each strike, 100 hours operation, 2 AAA batteries, automatic shutoff when strikes stop, pager size. $60.

http://tinyurl.com/n8wjdxt

Smart Phone **"WeatherBug"** App (refreshes every 60 seconds). However, needs a cell tower signal - not good in remote areas or mountainous terrain. Cost: Price of phone + phone carrier charges.

http://weather.weatherbug.com/spark-alert.html