

# Thunderstorms and Lightning

## EMERGENCY INFORMATION

1. Thunderstorms can bring heavy rains (which can cause flash flooding), strong winds, hail, lightning and tornadoes. In a severe thunderstorm get inside a sturdy building and stay tuned to a battery-operated radio for weather information.
2. Lightning is a major threat during a thunderstorm. In the United States, between 75 to 100 Americans are hit and killed each year by lightning. If you are caught outdoors, avoid natural lightning rods such as tall, isolated trees in an open area or the top of a hill and metal objects such as wire fences, golf clubs and metal tools.
3. It is a myth that lightning never strikes twice in the same place. In fact, lightning will strike several times in the same place in the course of one discharge.

## DANGER ZONES

While thunderstorms and lightning can be found throughout the United States, they are most likely to occur in the central and southern states. The state with the highest number of thunderstorm days is Florida.

## WHAT IS A THUNDERSTORM?

*A thunderstorm is formed from a combination of moisture, rapidly rising warm air and a force capable of lifting air such as a warm and cold front, a sea breeze or a mountain. All thunderstorms contain lightning. Thunderstorms may occur singly, in clusters or in lines. Thus, it is possible for several thunderstorms to affect one location in the course of a few hours. Some of the most severe weather occurs when a single thunderstorm affects one location for an extended time.*

## WHAT IS LIGHTNING?

*Lightning is an electrical discharge that results from the buildup of positive and negative charges within a thunderstorm. When the buildup becomes strong enough, lightning appears as a "bolt." This flash of light usually occurs within the clouds or between the clouds and the ground. A bolt of lightning reaches a temperature approaching 50,000 degrees Fahrenheit in a split second. The rapid heating and cooling of air near the lightning causes thunder.*

## DID YOU KNOW...?

- At any given moment, nearly 1,800 thunderstorms are in progress over the surface of the earth.
- On average, the United States gets 100,000 thunderstorms each year. Approximately 1,000 tornadoes develop from these storms.
- Large hail results in nearly \$1 billion in damage to property and crops.
- The power of lightning's electrical charge and intense heat can electrocute on contact, split trees, ignite fires and cause electrical failures.
- More deaths from lightning occur on the East Coast. More forest fires are started in the West as the lightning season coincides with the dry season there.
- Approximately 10,000 forest fires are started each year by lightning.
- Approximately \$100 million in annual losses result from forest and building fires caused by lightning.
- Straight-line winds exceeding 100 mph are responsible for most thunderstorm damage.