As the ice particles within a cloud grow and interact, they collide, fracture and break apart. Smaller particles tend to acquire positive charge, while the larger particles acquire more negative charge. These particles tend to separate under the influences of updrafts and gravity until the upper portion of the cloud becomes negatively charges. This separation of charge produces enormous electrical potential both within the cloud and between the cloud and ground. This can amount to millions of volts, and eventually the electrical resistance in the air breaks down and a flash begins. Lightning is an electrical discharge between positive and

negative regions of a thunderstorm.



If you cannot find proper shelter, squat low to the ground on the balls of your feet. Have your heals touch. Place your hands over your ears, eyes closed. Hold your breath if you anticipate an immediate close strike to prevent breathing superheated air.



1.



- 2. If lightning is seen, count the time until you hear thunder. If the time is 30 seconds (6 miles) or less; or if you don't see the lightning, but hear loud thunder; seek proper shelter.
- 3. A lightning certified or lighting protected building is the safest. Inside a metal bodied car with windows rolled up is relatively safe.
- If caught outdoors find a low spot <u>away</u> from poles and lone trees. Stay low (crouch) in a ditch or depression, or a low area, ravine or foot of a hill. Do not go to picnic shelters. Avoid shallow caves.
- 5. In the woods, find a low spot under short brush or a small tree among several large ones. Stay at least 6 feet away from the tree trunk to minimize a side strike or ground current from a tree strike.
- 6. Keep moving, don't stop—the chances of being hit decrease the more you move. Stay sheltered for 30 minutes after last lightning.
- Avoid water and metallic objects. Avoid close proximity to other people--spread out 15 ft. apart. Avoid contact with dissimilar objects (water & land; boat & land; rock & ground; tree & ground).

