



Outdoor Recreation Georgia Tech (ORGT)

Weather Hazards¹

Lightning Policy

Lightning is the leading direct meteorological cause of casualties in the United States.

Lightning presents direct danger in three ways (1) a direct lightning strike, (2) induced currents near a strike, and (3) ground currents.

1. If poor weather conditions exist, share specific lightning procedures prior to the start of the activity/program. The following is a list of protection measures that the Trip Leader should utilize when possible to make a decision about lightning storm response.
2. When storms are in the area, actively assess route and activity in relation to the time it will take to get to a safe location. Move to an area where escape from dangerous locations in a timely manner is possible (paddle close to shorelines with adequate landing areas, prepare to evacuate ropes courses, forgo peak ascents, travel close to easy evacuation routes when above tree line, etc.).
3. Counting the interval between a flash and the following thunder and dividing the number by 5 may estimate the distance of lightning potential. Five seconds = 1 mile.
4. Lightning protection measures should begin no later than an estimated three-mile distance (15 seconds) from group location (preferably 30 seconds-6 miles). Activity may resume when the lightning is a minimum of an estimated three miles away (15 seconds)-recommend 30 seconds.

On land:

- a. avoid high, exposed areas to avoid splash injuries or ground currents such as: summits, ridges, tops of cliffs, overhangs, shallow caves, ditches, gullies, streams, tall trees, poles, large boulders, and high open areas such as fields and meadows;
- b. get in an ideal location relative to your immediate surroundings (ideally half the height of the tree away from the trunk, off high ridges, not in spark gap zone, off large tree roots, etc.);
- c. seek shelter under a uniform tree canopy when possible;
- d. wear boots or other appropriate footwear;
- e. crouch on dry insulating material such as a sleeping pad, pack, or PFD, and keep feet close together and hands off the ground;

¹ This information was adapted from Georgia College Outdoor Education Programs policy and **The Backpacker's Field Manual**

- f. disperse group members in a line maintaining at least 15 feet between people with Staff spaced among the group;
- g. avoid group shelters if possible;
- h. everyone must remain within visual and auditory distance of Staff;
- i. count off periodically to ensure all participants and Staff are accounted for;
- j. remove contact with metal such as climbing hardware, pack frames, and personal gear.
- k. assume a lightning drill body position: Using available insulation to protect from ground current (PFD, ensolite pad, pack, etc.), occupy as little area as possible. Ideally, crouch with feet together and hands off the ground. If the drill continues so long that it is not physically possible to maintain that position, the next best position is kneeling with knees together.

On water:

- a. get boats to shore/edge if possible and participants and Staff away from water and follow on land procedures above;
- b. if shore can not be reached (marsh, large body of fresh or coastal water, etc.), spread boats out as close to shore as safely as possible and:
 - i. place Staff at both ends and throughout the group;
 - ii. crouch in boats without holding paddles and do not remove PFD's;
 - iii. avoid contact with metal on and in boats;
 - iv. count off periodically to ensure all participants and Staff are accounted for.

Tornados

The National Weather Service issues two types of information related to tornados, watches and warnings. A tornado watch indicated that conditions are likely to lead to the formation of a tornado. A tornado warning indicates that a tornado has been sighted in the area. ORGT programs should be adapted or cancelled in the event that a warning or watch has been issued for the area that you are traveling. If a tornado appears without warning, take the following action.

1. Seek shelter in a safe building if possible.
2. Lie down in a ditch or other low area.
3. Get out of vehicles.