



Gairloch Boat Club – Thunder and Lightning Policy

Lightning strikes the ground in Britain about 300,000 times a year. For the outdoor persons, this is a risk that must be considered. Although there is no absolute protection from lightning, measures can be taken to reduce the risk of getting struck and the injury severity. This policy provides information about lightning, statistics, precautions and operating procedures.

The risk

30-60 people are struck by lightning each year in Britain, and on average, 3 (5-10%) of these strikes are fatal.

Research has also shown that proximity to water increases the risk of being struck by lightning. The time that is most dangerous is when there is underestimation of the likelihood of being hit, for example before the storm or when you think it is over.

There are three different ways of being struck by lightning:

1. Direct strike: the lightning hits you and goes to earth through you.
2. Side Flash: the lightning hits another object and jumps sideways to hit you.
3. Ground strike: the lightning strikes the ground then travels through it hitting you on the way.

Flash to bang

To check if a storm is coming or going from where you are standing apply the flash to bang principle, counting as soon as the lightening flash is seen until the thunder is heard. 'Flash to bang' is based on the following facts:

1. Sound travels at 1 km in 3 seconds (approximately 1 mile every 5 seconds).
2. Light travels at 300,000 km per second.
3. Lightning will always be seen before thunder.

To calculate the distance between yourself and the storm divide the number of seconds by 3 to find the distance in kilometres.

If the distance between the thunder and lightning increases over a couple of strikes, the storm is moving away from you. If it decreases, it is coming towards you.

30/30 rule

Research shows that people struck by lightning are predominantly hit before and after the peak of the storm. This means that you should be thinking about the proximity of the lightning, not the occurrence of rain. The 30/30 rule provides a good way of ensuring one is sheltering during the riskiest parts of the storm. If the flash to bang is 30 seconds or less in length, the lightning is close enough to hit you, and you should seek shelter. Bear in mind that you will not always be able to see the flash, so err on the side of caution. Stay inside shelter until 30 minutes after the last clap of thunder. This ensures that

any distant strikes at the beginning of the storm (lightning can travel up to 10 miles), or trailing storm clouds at the back of the storm, do not take anyone by surprise.

Seeking shelter

- Ideally, seek shelter inside a large building or a motor vehicle keeping away from, and getting out of wide, open spaces and exposed hilltops.
- If you are exposed to the elements with nowhere to shelter, make yourself as small a target as possible by crouching down with your feet together, hands on knees and your head tucked in. This technique keeps as much of you off the ground as possible.
- Do not shelter beneath tall or isolated trees, it has been estimated that one in four people struck by lightning are sheltering under trees.
- If you are on water, get to the shore and off wide, open beaches as quickly as possible as water will transmit strikes from further away. Studies have shown that proximity to water is a common factor in lightning strikes.
- If need be, abandon sailing boats/kayaks and transport clients to shelter in safety boats if appropriate.

Staff responsibilities

- If thunder storms are forecast consider changing the programme to work around when the storm is forecast to arrive.
- Ensure all staff are aware of the 30/30 rule and act upon it – aborting the session and seeking safety as above.
- If thunder is heard without a flash, the activity must still be aborted and safety sought as above.
- If the duty officer has any concerns regarding thunder & lightning, they may initiate aborting any activity at any point.
- Activities will not recommence until the duty officer has confirmed it is safe to do so.
- If you are off site and out of contact with the club, YOU will need to make the decision about aborting your session and when it is safe to resume.

In case of emergency

If someone is hit by lightning, call emergency services – they will need help as soon as possible. If you know first aid, apply it – you will not receive an electric shock. A lightning strike is not usually instantly fatal, victims' hearts and/or breathing may stop however, so quick application of CPR will likely save their life.