

## **Guidelines for Use of Emergency Position Indicating Radio Beacons (EPIRBs) and Emergency Evacuation**

The Club encourages walkers in remote areas to carry the Club's EPIRB for emergency use (and a copy of these guidelines). The Club's GME AccuSAT device, on activation, transmits an internationally recognised distress signal on the 406 MHz frequency for a minimum of 24 hours. The frequency is monitored by commercial and military aircraft and by the COMPAS/SARSAT satellite systems. The satellites can pick up a distress signal and relay it to a local ground receiving station (known as a Local User Terminal or LUT) - from there the beacon's position can be calculated. The information is then passed to the Search and Rescue Headquarters where rescue operations are initiated.

Australia's LUTs are located at Albany and Bundaberg. Darwin and the Northern Territory are in the "2 hour zone" - the time period within which your approximate position should be calculated and someone should be on their way, in theory.

EPIRBs have some weaknesses, of which users should be aware.

1. While 406MHz devices are better than their predecessors, **walkers should assume that their position is known only approximately.**
2. The signal may not be received from deep valleys or under dense canopies.
3. Triggering an EPIRB sends an emergency signal "**WE ARE IN GRAVE AND IMMEDIATE DANGER TO LIFE**". There is no "*we are in a bit of shit because Fred has broken his foot and can't walk properly*".
4. Once triggered, the signal cannot be cancelled by the user, although false alarms can be notified to the Australian Maritime Safety Authority on **1800 641 792**.
5. EPIRBs transmit only. You cannot seek advice, send a specific message, know that the message has been received, or even that the signal was successfully transmitted.
6. Searches triggered by EPIRBs are generally undertaken from the air, so groups should make every effort to be visible to searchers in aircraft.

**EPIRBs should be regarded as a last resort, and groups need to make every effort to be self-reliant in dealing with any emergencies.**

The final call is up to the group leader - if you have done all you can and think the person is in grave danger and getting worse, then activate the EPIRB. Be aware that for a false activation (or for a minor reason that is not life threatening) you may be liable for the costs of the search and evacuation!

### **Hints**

1. Place the beacon in a cleared area so trees will not block transmissions.
2. Place the beacon on high ground if you are in a gully.
3. Place the beacon on a metal surface (car roof, space blanket or damp soil).
4. Always have a dedicated person on look-out for planes or helicopters on a high or prominent feature or a large cleared area where they can be seen more easily.
5. It is said that a mirror on a perfect day can be seen as far away as 160km, so this may be a good method of attracting search aircraft (see below).
6. Lay out as much brightly coloured clothing and equipment as possible, or wave it as much as possible, when you hear or see an aircraft.

## How to use a Mirror for Signalling

A mirror is utilised by pointing it directly towards an object, a noise or sweeping the horizon. To use it properly -

1. reflect sunlight from the mirror onto a nearby surface;
2. move the reflection to your hand or a stick held out in front of you;
3. move the reflection towards the aircraft you have seen or heard; and
4. don't reflect the sun directly into the pilot's eyes, the body of the aircraft will do and don't deliberately rock the mirror as the hand does this inadvertently.

## Signalling with Smoke

Smoke is an easy way of letting aircraft know where you are, *but bear in mind the high fire risk*. Also ensure adequate protection of your patient against further injury.

Internationally recognised methods of signalling are -

1. three fires 30m apart in a straight line; or
2. three fires 30m apart as corners of a triangle.

These methods are very time consuming (in making them and keeping them going) and require a large amount of green vegetation to produce an effective plume of white smoke.

## Helicopter Landing, Take-off and Loading Procedures.

1. The landing area should be approximately 7m x 7m, as flat as possible, and away from any power lines and large trees that could hamper the approach.
2. Remove any loose branches or protruding sticks that may interfere with the landing and beware of the extreme down-wind that is produced by the main rotor and the side wind from the tail rotor.
3. For safety, stay at least 50m from helicopters landing and taking off.
4. If directing a helicopter pilot for landing, stand on the upwind side of the selected landing area with your arms outstretched indicating the landing area.
5. If a cable is lowered from a hovering helicopter, let it touch the ground first to dissipate the static electricity. After hooking up the cargo or person, move forward or to the side of the aircraft and signal to the pilot that the operation is complete.
6. Always approach and depart the helicopter from the front and only after being given the **all clear** by the pilot, which is indicated by the thumbs up signal.
7. **Never go near the tail section of the aircraft!**
8. Do not wear a hat or any other articles of clothing that can be blown away.

Whenever working in and around helicopters: always take your time, think what you are doing, watch the pilot and keep your head down. Fill out an observation chart with the patient's name, address, and any emergency contacts which you might have. Include what happened to the person (basically as much information as possible) and pass it to the pilot or whoever is in charge. After the incident, sit down and document what happened, especially timings and specifics of what occurred. After documenting the incident have a debriefing session with the group and discuss any problems or points that arose.