

Signaling and How to be Rescued

When out in the wilderness of any kind, situations occur that may require you being rescued. Rescues happen for a number of reasons such as becoming disorientated and finding yourself lost, a vehicle malfunction or an accident leaves you stranded, an injury occurs in a remote location or a storm blows in leaving you unable to leave the area. Most often the person needing rescue isn't at a far off location but rather within a half-day travel on foot back to a populated area.

Search and Rescue will tell you that Sunday at 3:00 PM is the most likely time people will realize when something is wrong. This is the day and time most people start to wrap up their adventure and begin returning to their camp or home and find themselves turned around. When you are out enjoying the day, you aren't focused on your return but instead, getting to where you want to go. It is also the time that weather conditions start changing and people get tired and in a hurry. In the winter season Search and Rescue generally is involved with finding people lost in forest environments. In the summer time it's the injured hiker that they are looking for. During hunting season the desert becomes the location Search and Rescue is working in.

When lost, needing assistance or rescue will only become evident when you haven't come home yet. Too often Search and Rescue is looking for someone who has been gone for a prolonged period of time because no one knew to look for them in the first place. Your best chance of being rescued when you most need it and can still be found alive is when you leave an itinerary with someone. It seems like such a simple thing but too many incidents of rescuing someone was well after the fact of them being lost. If someone, anyone knows that you are out in an area and are expected back by a certain time, you can be found when necessary. Your number one rule in being rescued is to leave an itinerary with someone who will call when you haven't returned. Rule number two is to stay put. Moving around makes it incredibly difficult for Search and Rescue to find you. Remaining in your location is always your best bet when lost. As an example, if you stay with your vehicle, you are significantly easier to spot than when on foot and in vegetation.

Signals of three is internationally recognized as a distress call. For example, three blasts of a whistle, three flashes of light, three signal fires or three markers all indicate the need for assistance.

Signaling for Help

- **Personal Locator Beacon** – A SPOT device is a satellite signaling device with a GPS unit. It is a paid for annual service that will signal your location and condition to Search and Rescue. How it works is when activated, the unit will triangulate its position using GPS and will relay via satellite a distress call to Search and Rescue via the push of a button. The unit will also allow you to

send a message checking in that all is ok, send a custom message, send a help message to your personal contact and can update your position as you are traveling. The units sell for approximately \$150 and the annual membership fee is \$150. This device works virtually anywhere in the world. Another Personal Locator Beacon is the ACR ResQLink units.



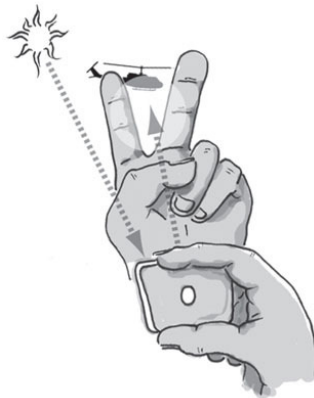
- **Fire** – Making a fire serves a series of tasks to help you get rescued. Primarily it is easier for Search and Rescue to find you when they spot smoke from miles away or see the flames of a fire at night. White smoke is produced by burning green vegetation. Any green vegetation will do but the fresher and wetter the type of vegetation the more smoke it will produce. Black smoke generally means that something from a petroleum based product is burning and that normally means a vehicle fire. A spare tire when burned will produce a large volume of smoke and that will be seen for miles. To light a tire on fire requires a great deal of direct flame and heat. It's important to let the air out of the tire first before attempting to burn it. Using oil from the engine's dipstick will aid in lighting the tire. When possible, having three separate fires producing three distinct plumes of smoke will stand out as a distress although that's easier in theory than practical application. Additionally so being seen, making a fire performs a task which gives you purpose and helps with the stress of being lost. This is even more important when in a group. Everyone needs to participate in building a fire so as to avoid the psychological issues that arise when in stressful and panic situations.
- **Cell Phones** – Cell phones, even those no longer in service can still call 911. When lost in the wilderness you may not have service but in truth, given the right conditions your cell phone can still have the means to send a signal to a cell tower although you may not have an indicator that your phone has a

working signal. Cell phones can be triangulated based on their unique ID and are often times able to maintain a connection to the tower although the strength of the signal is not good enough to communicate on. Dialing 911 from your phone will at times connect enough to register that your phone made a call although you were unable to communicate and all indications is the call did not go through. When you do not have service, you should still leave your phone on because as atmospheric conditions change, the signal properties change as well and suddenly your phone will have a connection to the tower when it didn't earlier. Search and Rescue knows to look for your cell phone hitting a tower to help narrow down the search area. They are also able to actively have your phone pinged and can locate you that way as well.

- **Whistles** – Whistles are one of the easiest and simplest ways to be heard when lost. Three blasts of a whistle is an indicator of distress. When you are injured, thirsty or are horse from yelling a whistle can still be heard. Always use signals of three. Use plastic whistles because metal whistles stick to your lips when cold.



- **Mirrors** – Signal mirrors are capable of clearly reflecting light at distances over 40 miles away. Although you may not be able to see someone at that distance, they will see your reflection. Remember your rules of three and give three flashes, wait and then give three flashes. Rescue mirrors have a hole in which to look through used for sighting. To aim your mirror at rescue planes, helicopters or distant vehicles, make a peace sign “V” with your fingers to use as an aiming reference and flash your mirror between your “V” shaped fingers.



Rescue Signal Mirrors are designed and made in such a way as to be as reflective of light as possible but any mirror will work in an emergency. You can use the review mirror from your vehicle, a mirror from your sun visor, a makeup compact or even a Compact Disk. For those that are familiar with the SOS signal you can use a mirror to signal your distress with three quick flashes, three long flashes and three quick flashes or short, short, short, longgg longgg, longgg, short, short, short.

- **Flashlights** – Flashlights work the same as a signal mirror and are very effective at night. Any strobe, SOS signaling or simply three bursts of light can be seen for miles at night. The higher the intensity of the light, the farther you can be seen. Even a small pen light can be seen for a significant distance under the right conditions. Remember though it isn't so much the light but the rhythmic flashing of the light that will draw attention.
- **Signal Flares** – Signal flares can be seen for great distances under the right conditions. The flares that are held by hand are best detected when moved back and forth so as to help a casual observer recognize that the light being witnessed is a distress rather than a simple occurrence of a stationary light. Remember that the human eye is keen to detect movement more than anything else. Flares that are fired into the air via a flare gun burn very hot and you risk a serious chance of starting a fire. When using a flare be conscientious of where the flare lands so as not to start vegetation on fire. A flare will take away your night vision up to thirty minutes so be mindful of the fact that if you light or use a flare, your vision will be severely limited at night for a period of time. You most likely won't see a response from Search and Rescue to your flare at night.
- **Being spotted** – Waving your arms over your head back and forth and making a 'Y' is an indication to air crews that you are signaling for help and are in need of rescue. One arm up and one arm down is recognized as a 'NO' signal and you are not in need of rescue.



What To Do When Lost

1. Stay put when it's safe to do so. You have a much better chance of being found if you stay in one place. If you have to leave seek higher ground to aid in being spotted. If you are able to get to a trail or road, stay there.
2. Mark your trail if you do have to move. Mylar blankets, shiny items, trail markers, clothing, making location arrows out of rocks or vegetation will aid in Search and Rescue locating you.
3. Make a fire if you can.
4. Leave your cell phone on.
5. Mark your location in groups of three. Remember that if you are using natural vegetation you need to make it obvious. Search and Rescue is trained to go look at anything and everything not natural to the environment.
6. Do not go looking for food.
7. Make shelter if you think it will be a prolonged period of time to be found.
8. Stay slow and steady. Do not take risks that can lead to an injury. Make deliberate movements and rest as often as possible.
9. Stay calm and trust that Search and Rescue is highly trained to find you. Rescue efforts take time so be prepared to wait but remember they always come to look for you if there is any chance at all of you being found or recovered.

10 Items to Always Carry When Hiking

1. Map and Compass – Always have a compass with you and a map of the area where you are hiking. Having a GPS unit, phone, electronic devices and SPOT devices are always good gear to have but a compass and map never breaks down.
2. Water – Even if you are going for just a short hike, always take more water than you think you'll need.
3. Fire – Always have a means to make fire with you. The easier it is for you to make fire the better so give yourself three means to start a fire and make sure you are practiced in their use.
4. Sun Protection – Wear a hat, have a means to cover skin by long pants and shirts, a neckerchief and sunglasses in both summer and winter conditions.
5. Light – Bring either a flashlight or headlamp.
6. First-Aid kit – This doesn't have to be much but a means to clean debris from a wound, antiseptic, bandages to stop the bleeding and pain reliever should always be with you.
7. Emergency shelter – A Mylar blanket or a means to make shelter can mean the difference between life and death in an emergency situation. These are lightweight and small but serve you in multiple ways when necessary.
8. Multi-tool – This is worth its weight in gold when out in the field. A small multi-tool on your belt, such as a Leatherman tool can repair gear, serve to help make a shelter and generally get you out of a jam.
9. Extra Clothing – Have a means to insulate yourself when the weather suddenly changes or if you find yourself stuck for the night in the wilderness. This includes an extra pair of dry socks.
10. Nutrition – It can be as simple as a granola bar, trail mix or some jerky but adding some calories to your hike is a must when the hike suddenly becomes longer or more difficult than you anticipated.