RULES & INFORMATION – GENERIC – Level 2

Introduction

Welcome to ***Survivorman Challenge***. The Survivorman Challenge simulates a team who becomes lost in the Colorado wilderness as a result of a plane crash, must survive a night in the outdoors, signal a plane to get rescued, and complete a variety of challenges in order to survive until help can arrive. While your Patrol has survived the crash, the plane is burning, cannot be used for shelter, and appears dangerous to stay near. It will not be a good landmark for Search and Rescue (SAR).

Often staying put is the best option in a survival situation. But, for this simulation, staying near the start point isn't likely to be the best option.

For safety, some elements of this simulation must be adjusted. However, to the extent possible, the challenge will to stay true to this scenario.

The objective of the Challenge is for your Patrol to amass the largest number of points. The Patrol with the largest number of points wins the Troop 16 Cup.

Rules

1. The Scout Law is the primary rule of the Challenge.
2. Teams will be made of at least 4 members, smaller teams will be combined.
3. Each team will be told when and where to set up camp. The boundaries of the Challenge area are the barbed wire and fence that surrounds the property and are marked by a red line.
4. Each team will be shadowed by a Referee. The Referee will determine if points should be awarded for completion of various skills and tasks. The Referees will have their own food and tents and will interact only on a limited basis with the teams.
5. Except in cases of safety or emergency, the Referee will not offer help or guidance, and may not be asked for advice. Referees are responsible for Bear Bag protocols.
6. The teams have only the following items on their persons. No other items can be carried.

- ✓ Map (2 per team)
- ✓ Sleeping bag or blanket
- ✓ Clothes, footwear, and jackets appropriate to weather
- ✓ Space blanket
- ✓ Canteen (one)
- ✓ Compass
- ✓ Camera (award for best photo)
- ✓ Information Packet (sheets allowed may be limited by Coordinator)
- ✓ Personal first aid kit – may not be used for challenges
- ✓ Knife or Leatherman (2/team)
- ✓ Whistle
- ✓ Plastic cat-hole shovel
- ✓ Sunglasses & Sunscreen
- ✓ Radio, with extra batteries
- ✓ Headlamp/ flashlight
- ✓ Items salvaged from the plane (chosen from a pile)
- ✓ Toilet paper

7. Teams must stay together. Teams **may not** send out a Recon Patrol. When a team is travelling it must be within approximately 50 yards of each other. Teams may not seek more than one cache at a time and, in so doing, split their team.

8. All of the items you will need will be within the crash site. While the plane is on fire, the area you will be searching is not in immediate danger. You will have a specified time to search the crash site for useful items to take with you to help you on your journey; but you will not be allowed to take any of the baggage with you. Anything you take from the wreckage must go with you everywhere, and must be returned at the end of the challenge.
9. Once you leave the crash site, you may return to the crash site if you feel you left something useful behind, but once you check in at your first checkpoint, returning will cost you points for each item you pull from the wreckage.
10. There will be several checkpoints marked on your map. At each checkpoint, your patrol will face a challenge. Some may contain food to help you survive, and if you successfully complete the challenge, you will get access to that food. At other checkpoints, your team may face challenges that offer opportunities to demonstrate your survival skills. The more ways you complete a challenge, the more points you can amass. Moving or otherwise making the cache more difficult to locate, or removing more than one supply from it, will result in immediate disqualification.
11. The Challenge area has several risks within it. There are cliffs, wildlife (including snakes), and water areas. Water and cliffs are marked (for the most part) on the team's map. Scouts should be alert to these risks and not approach the tops of cliffs or dangerous inclines. Scouts should avoid places where snakes may be (rotten logs, undercut rocks, and swampy areas) or take care when doing so.
12. Scouts may not use snares or traps to *actually* harm any animals.
13. To receive points for demonstrating a technique or skill, it must be visible to the referee. If the referee doesn't see it, no credit can be given.
14. **Two caches must be found at a specific time, in order to be able to complete them. If you are early, you may wait for your time. If you are late, you will miss the points for that challenge, which may be significant. If you are on time and attempt the challenge, but fail to complete it, partial points will be awarded.**
15. Once a team has established a Basecamp, they may not move it.
16. The coordinates of the extraction point will be provided to the teams at one of the checkpoints.
17. Teams must be at the extraction point by 9am on Sunday morning or they will forfeit 20 points.
18. Inappropriate or unsafe behavior by a team member will either result in that team member being removed from the challenge or the entire team being disqualified. This includes banging sticks on trees, damaging the terrain, mis-use of fire, and other activities that damage the pristine nature of the area.
19. The lakes in the area are regularly used by livestock and should <u>not</u> be used as a source of water, to avoid dysentery. Instead, water caches will be placed at marked areas of the map to simulate available water. Lake water can be used for demonstration and for putting out fires. No swimming or wading is allowed in the lakes.

Survivorman
LEVEL 2
Items Allowed:

1. Water bottle, filled
2. Warm Clothing
3. Knife/Multi-tool (2 per team)
4. Rain Gear
5. Personal First Aid Kit (may not be used for any challenges)
6. Whistle
7. Glasses/Sunglasses
8. Wide Brimmed Hat
9. Sunscreen
10. Compass
11. Headlamp
12. 3 of the training sheets of their choosing
13. Daypack
14. Sleeping Bag
15. Sleeping Pad

Prohibited Items:

1. **Any form of shelter**
2. **Any Food**
3. **Fire Starter Kit, including matches and lighter**
4. **Rope**

Items provided:

1. Food
2. Maps and other packet info
3. Training
4. #10 cans for fires
5. Crash Items

COOKING

Guidelines

During the **Survivorman Challenge** you will be able to cook a meal using the materials you have around you.

If you have located the food Cache, you will find that you have successfully captured and killed an animal, probably a snake or small game animal (rabbit, squirrel, etc.) Not surprisingly, it tastes like chicken – everything tastes like chicken, after all.

Stoves

Because fire is a critical issue in the dry area of the Gates Backcountry (and may be banned), you are encouraged to make several simple alcohol stoves. Remember, you were able to salvage a bottle of Rubbing Alcohol from the plane. For a large team, or quicker cooking time, it may be advisable to use more than one stove. To make the stove, you will need an aluminum can and your pocket knife.

- ✓ Cut the can roughly in half, using your pocket knife.
- ✓ Using the hole-punch or awl portion of your knife, NOT THE BLADE, punch 4-5 holes in the sides of the bottom part of the can. They should be about the size of a pencil's diameter.
- ✓ Clear away an area of earth down to the sand or gravel.
- ✓ Make a wind-break out of stones or place the stove inside a coffee can. <u>This is very important</u>. These stoves do not work well in windy conditions. Lay the stove(s) in the bottom.
- ✓ Pour about two finger's worth of alcohol into the stove and light using a flaming twig.
- ✓ **ALWAYS <u>ASSUME</u> THIS STOVE IS LIT OR YOU WILL GET BURNED**, the flame from alcohol fuel is usually invisible.
- ✓ Using wire, rocks, or another material make a stand for the cooking pot to rest upon.
- ✓ Generally speaking, you must let this stove burn out. However, if it is absolutely critical, you may tip the stove over and dump the alcohol on the gravel. Then drop clean dirt on the burning ground to extinguish it.

There are much more complicated stove designs available, but this one is simple to make with a pocket knife.

<u>Be careful of the sharp edges of the aluminum cans.</u>

Hobo Stove

You may make a fire inside a large can, if you have found one.

Cut holes in the bottom to allow air to flow. These can be made with the can-opener portion of your pocket knife. Larger holes are better because they won't be as easily clogged by ash.

Lay the fire as you would if it were on the ground (tinder, kindling, fuel)

Start it with a burning ember and lots of blowing air.

Place a pot or larger can on top or use wire to create a grate. You can also warp the shape of stove can.

Cook your meal in the larger pot.

Edible Plants
(some common Colorado plants)

Dandelion

Edibility: Edible **Color:** Green / Yellow

This plant was introduced from Europe. All parts are edible. Older leaves can turn very bitter. They are best when very young, or after a frost. They can be used in salads as well as cooked.

Plains Prickly Pear Cactus

Edibility: Edible

This common cactus yields fresh edible petals and edible fruits. Be careful with the spines. The fruits or tunas should be removed of spines, sliced in half and seeds removed. The rest can be eaten. They can then be eaten raw or used to make jams and jellies. The seeds can also be eaten if ground into a meal. The young petals can be eaten raw, or cooked. The stickers are not so easy to remove. You can find larger prickly pears, cut petals, full petals and jarred petals in latin markets in the produce sections and canned goods.

Pinion Pine & Ponderosa Pine

Habitat: High desert locations at elevations 5000 - 7000ft in Colorado.
Smell: Pine **Edibility:** Edible **Color:** Green

Pinon and Pine nuts are edible and collected by some people. Tea made from the needles is rich in Vitamin C but should only be taken in moderation. Large amounts of evergreen teas can be toxic.

Mountain Raspberry

Habitat: Dry rocky slopes. Foothills to Montane.
Edibility: Edible Color: Red

Edible berries usually fruiting in August and September. You can find steep hillsides covered with them. They are one of the easiest edible berries to identify. The berries can be used to make jams and jellies. Medicinal Teas can also be made from the leaves of the raspberry

plant. Raspberries are high in vitamin C. Raspberries can also help prevent gum disease.

Wild Lettuce, Prickly Lettuce

Edibility: Edible **Color:** Green

A common weed introduced from Europe. It can be eaten, however it is rather bitter and has spines. It is a close relative to our normal lettuce.

Wild Onion, Geyer's Onion

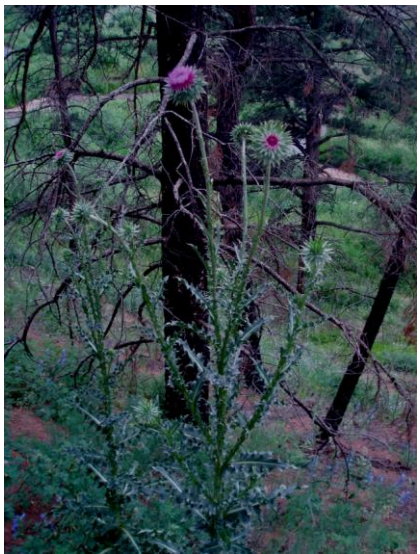
Habitat: Very common from plains to subalpine areas. Grows in moist meadows and hillsides.
Smell: Onion **Edibility:** Edible **Color:** Lavender

Pink, lavender to white flowers. Smells strongly of onion. Be careful not to confuse with a close look-a-like the death camas. There are many similar onions that grow in the from the plains to treeline. These onions are very common throughout Colorado. Can be cooked over a fire with fish or meat. They are a very good onion with lots of earthy flavor. Many need to be collected for a meal.

Yucca, Narrow leaved Yucca

Habitat: Dry hillsides from desert, plains to foothills. Usually found at lower elevations in dry areas. Fairly abundant in the ponderosa pine belt around 7000ft.
Edibility: Edible Color: Green

Leaves are used to make strong fibers. Roots can be used to make soap. The fresh flowers can be eaten raw in salads. It is best to get them before they fully open and get riddled with bugs. The wood from yucca is great for making fires using primitive methods such as a bowdrill or firesaw. In the show Man vs. Wild he uses yucca to make a firesaw.



Thistle, Creeping thistle

Edibility: Edible

A close relative of the artichoke. This is a very common weed throughout the United States. The roots and young flowers are edible.

Convex Lens

Use this method (Figure 7-6) only on bright, sunny days. The lens can come from binoculars, camera, telescopic sights, or magnifying glasses. Angle the lens to concentrate the sun's rays on the tinder. Hold the lens over the same spot until the tinder begins to smolder. Gently blow or fan the tinder into flame, and apply it to the fire lay.

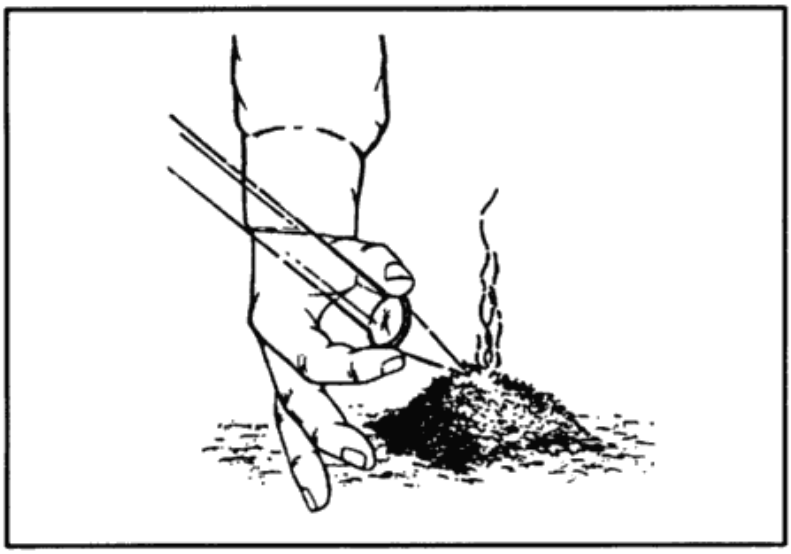


Figure 7-6. Lens method.

Fire-Plow

The fire-plow (Figure 7-7) is a friction method of ignition. You rub a hardwood shaft against a softer wood base. To use this method, cut a straight groove in the base and plow the blunt tip of the shaft up and down the groove. The plowing action of the shaft pushes out small particles of wood fibers. Then, as you apply more pressure on each stroke, the friction ignites the wood

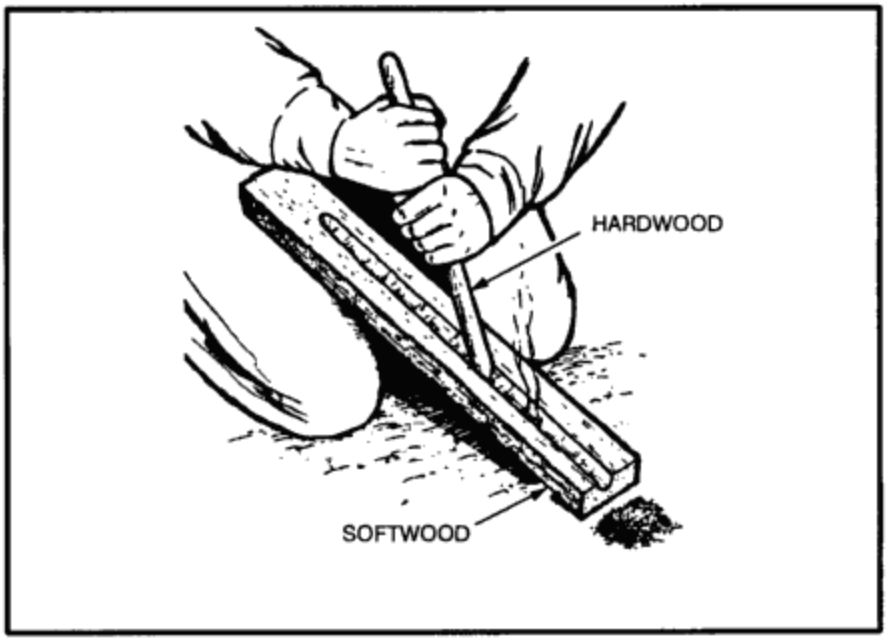


Figure 7-7. Fire-plow.

particles.

Flint and Steel

The direct spark method is the easiest of the primitive methods to use. The flint and steel method is the most reliable of the direct spark methods. Strike a flint or other hard, sharp-edged rock edge with a piece of carbon steel (stainless steel will not produce a good spark). This method requires a loose-jointed wrist and practice. When a spark has caught in the tinder, blow on it. The spark will spread and burst into flames.

Bow and Drill

The technique of starting a fire with a bow and drill (Figure 7-8) is simple, but you must exert much effort and be persistent to produce a fire. You need the following items to use this method:

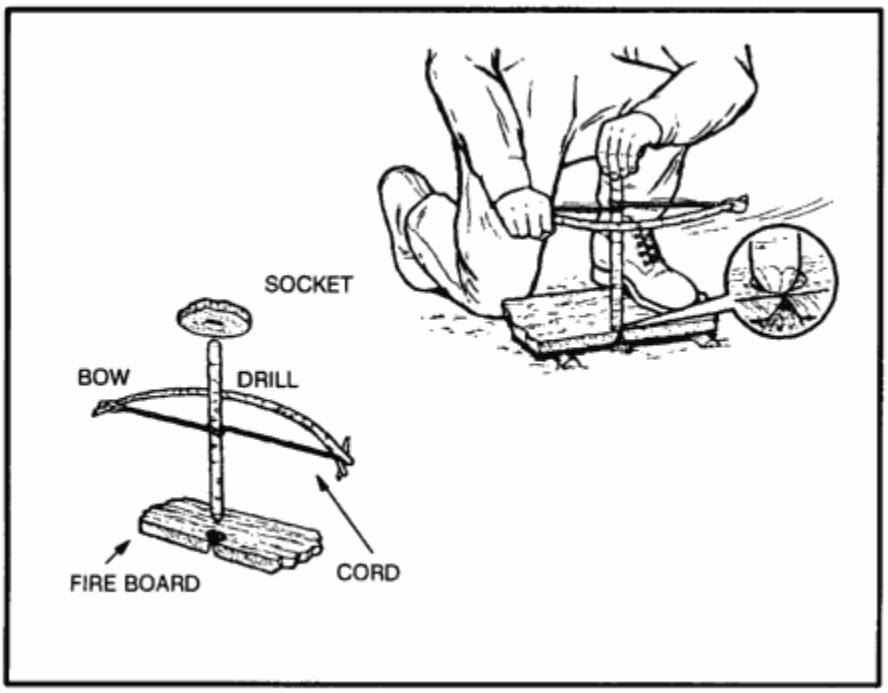


Figure 7-8. Bow and drill.

- ✓ **Socket.** The socket is an easily grasped stone or piece of hardwood or bone with a slight depression in one side. Use it to hold the drill in place and to apply downward pressure.
- ✓ **Drill.** The drill should be a straight, seasoned hardwood stick about 2 centimeters in diameter and 25 centimeters long. The top end is round and the low end blunt (to produce more friction).
- ✓ **Fire board.** Its size is up to you. A seasoned softwood board about 2.5 centimeters thick and 10 centimeters wide is preferable. Cut a depression about 2 centimeters from the edge on one side of the board. On the underside, make a V-shaped cut from the edge of the board to the depression.
- ✓ **Bow.** The bow is a resilient, green stick about 2.5 centimeters in diameter and a string. The type of wood is not important. The bowstring can be any type of cordage. You tie the bowstring from one end of the bow to the other, without any slack.

To use the bow and drill, first prepare the fire lay. Then place a bundle of tinder under the V-shaped cut in the fire board. Place one foot on the fire board. Loop the bowstring over the drill and place the drill in the precut depression on the fire board. Place the socket, held in one hand, on the top of the drill to hold it in position. Press down on the drill and saw the bow back and forth to twirl the drill (Figure 7-8). Once you have established a smooth motion, apply more downward pressure and work the bow faster. This action will grind hot black powder into the tinder, causing a spark to catch. Blow on the tinder until it ignites.

Based on U.S. Army Field Manual 21-76

NAVIGATION

Map

You will be given two copies of the Survivorman Challenge map. These are classic Orienteering Maps. They have significant amounts of detail, right down to individual boulders, trees, and cliffs. Many of the largest roads and trails are marked on this map, but not all. There are many game trails in the backcountry, so don't be fooled.

Orient your map! Orient your map! Orient your map!

The most important map skill in the Challenge is to always keep your map oriented. That means you are holding it so that it mirrors the world around you, not just with North at the top. The lines on your map that run north and south have already been adjusted for declination, so you only need to line them up on your compass to orient the map. Peaceful Valley Scout Ranch is to the north on your map.

The second most important skill is to pay attention to where you are. If you are chatting or moving quickly and no one keeps track of where you are on the map, you can easily find yourself with no recognizable landmarks. You will be lost. Don't let this happen to you.

Terrain

Cliffs & Drops

There are many steep drops and cliffs in the Backcountry area. Several of these are part of the ravine system and are near the bottom. DO NOT CROSS DROPS of more than 45 degrees. Backup and go around. They are dangerous and traversing them destroys the terrain.

The Canyon

Within the confines of the Backcountry there is a steep canyon. As it goes further northwest the walls get steeper and there are many cliffs. DO NOT CLIMB ON THESE CLIFFS. The canyon bottom is difficult and broken ground with many downed trees and boulders. Go slowly and carefully. Do not run. If significant rain occurs, be watchful for flash floods and get to higher ground if necessary.

Barbed Wire

Take care when near barbed wire and if you must cross, look for access points. There are several sections of barbed wire in the Backcountry. The first is around the middle lake and is to keep livestock from damaging the edges of the lake. There are gaps in this wire fence.

Boundaries

The Survivorman Challenge takes place within the entire Gates Backcountry area and that area is surrounded by barbed wire fence. DO NOT CROSS BARBED WIRE FENCE AND EXIT THE BACKCOUNTRY. At the minimum, your team will be disqualified.

Peaceful Valley Scout Ranch covers the entire northern border of the Backcountry Area. If you get lost, travel north to the barbed wire. Then travel east, following the barbed wire, until you find the Troop's basecamp.

Caches

Supply caches will be marked with brightly colored Orienteering Markers. Some will be easier to find than others. Each Marker has a puncher attached. To score points for finding a marker, you must punch your map with the puncher.

You may take only one grouping of items from each Cache. You must leave the other items for other teams. Do not move or disturb the other items located at a cache.

Orienteering Maps are different

Orienteering maps have significantly more detail than topographic maps. However, they are read somewhat differently. For starters, forest area is in white and prairie is in yellow. Unlike a Topo map, green indicates low level vegetation that could make it difficult to move through.

Take note of the special features of the Orienteering Map Key. For instance, individual trees and rocks are sometimes marked. Also, depressions and embankments are shown. Matching the map to what you see around you will be critical to winning the 2010 Survivorman Challenge.

ORIENTEERING MAP KEY

T16 SURVIVORMAN CHALLENGE 2010

Poncho/Tarp Lean-To

It takes only a short time and minimal equipment to build this lean-to (Figure 5-1). You need a poncho, 2 to 3 meters of rope or parachute suspension line, three stakes about 30 centimeters long, and two trees or two poles 2 to 3 meters apart. Before selecting the trees you will use or the location of your poles, check the wind direction. Ensure that the back of your lean-to will be into the wind.

To reduce heat loss to the ground, place some type of insulating material, such as leaves or pine needles, inside your lean-to.

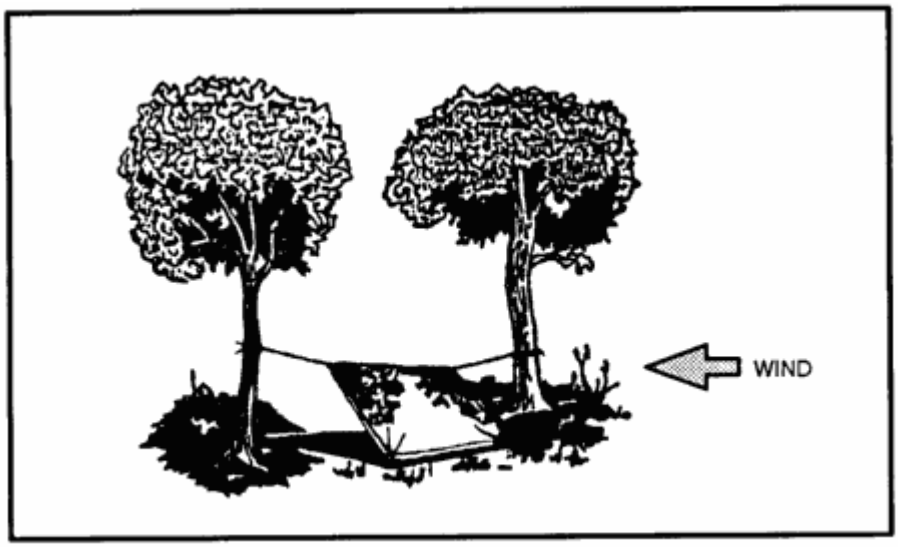


Figure 5-1. Poncho lean-to.

Poncho/Tarp Tent

This tent (Figure 5-2) provides a low silhouette. It also protects you from the elements on two sides. It has, however, less usable space and observation area than a lean-to.

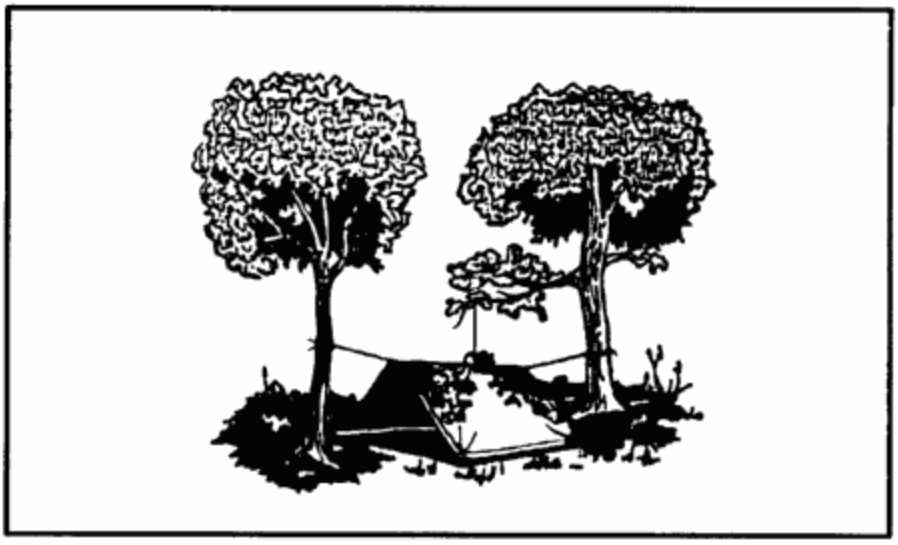


Figure 5-2. Poncho tent using overhanging branch.

One-Man Shelter

A one-man shelter you can easily make using a parachute, poncho, or tarp requires a tree and three poles. One pole should be about 4.5 meters long and the other two about 3 meters long. Be sure to tuck any excess material under to avoid pooling of rainwater.

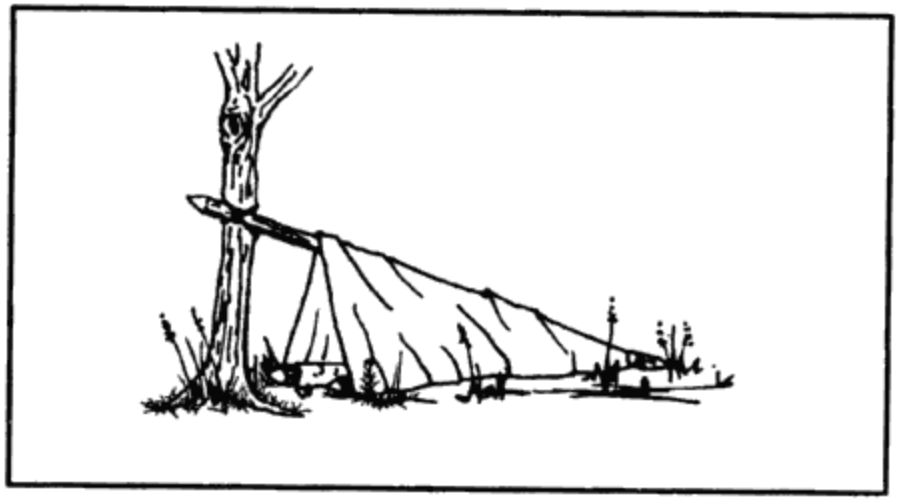


Figure 5-7. One-man shelter.

Swamp Bed

In a marsh or swamp, or any area with standing water or continually wet ground, the swamp bed (Figure 5-10) keeps you out of the water. It also keeps you away from snakes and critters. When selecting such a site, consider the weather, wind, tides, and available materials. To make a swamp bed--

- ✓ Look for four trees clustered in a rectangle, or cut four poles (bamboo is ideal) and drive them firmly into the ground so they form a rectangle. They should be far enough apart and strong enough to support your height and weight, to include equipment.
- ✓ Cut two poles that span the width of the rectangle. They, too, must be strong enough to support your weight.
- ✓ Secure these two poles to the trees (or poles). Be sure they are high enough above the ground or water to allow for tides and high water.
- ✓ Cut additional poles that span the rectangle's length. Lay them across the two side poles, and secure them.
- ✓ Cover the top of the bed frame with broad leaves or grass to form a soft sleeping surface.
- ✓ Build a fire pad by laying clay, silt, or mud on one comer of the swamp bed and allow it to dry.

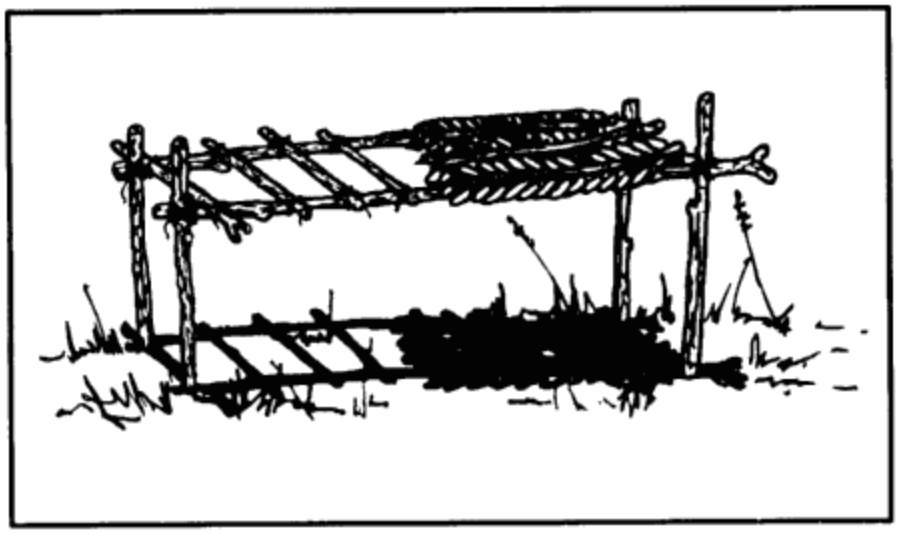


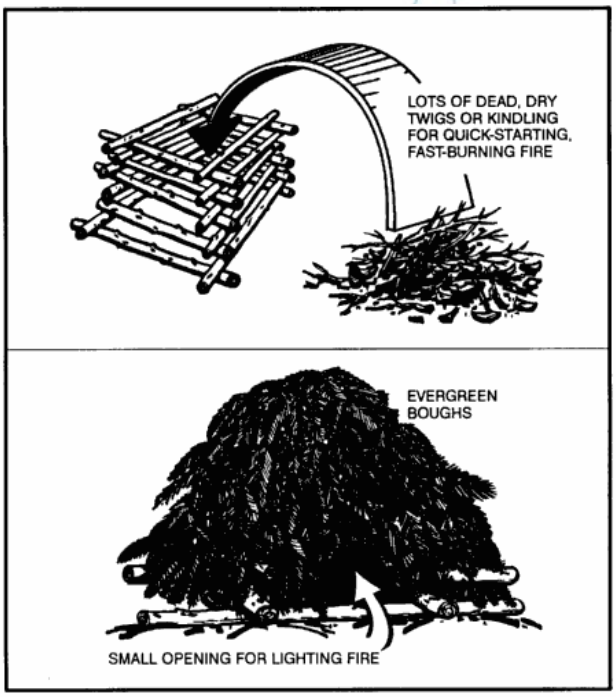
Figure 5-10. Swamp bed.

Based on U.S. Army Field Manual 21-76

SIGNALING

Fire

During darkness, fire is the most effective visual means for signaling. Build three fires in a triangle (the international distress signal) or in a straight line with about 25 meters between the fires.



Smoke

During daylight, build a smoke generator and use smoke to gain attention (Figure 19-2). The international distress signal is three columns of smoke. Try to create a color of smoke that contrasts with the background; dark smoke against a light background and vice versa. If you practically smother a large fire with green leaves, moss, or a little water, the fire will produce white smoke. If you add rubber or oil-soaked rags to a fire, you will get black smoke.

Mirrors or Shiny Objects

On a sunny day, a mirror is your best signaling device. If you don't have a mirror, polish your canteen cup, your belt buckle, or a similar object that will reflect the sun's rays. Direct the flashes at the plane or helicopter. Practice using a mirror or shiny object for signaling now; do not wait until you need it.

Haze, ground fog, and mirages may make it hard for a pilot to spot signals from a flashing object. So, if possible, get to the highest point in your area when signaling. If you can't determine the aircraft's location, flash your signal in the direction of the aircraft noise. Pilots have reported seeing mirror flashes up to 160 kilometers away under ideal conditions. Figures 19-4 and 19-5 show methods of aiming a signal mirror for signaling.

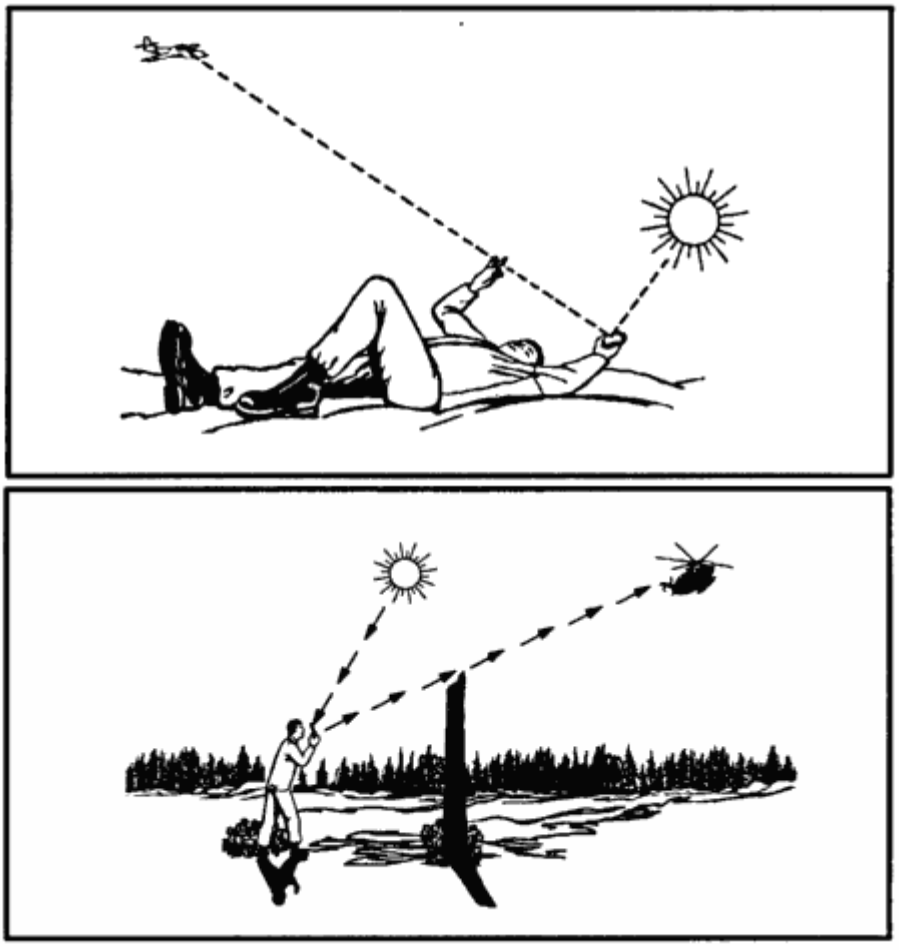


Figure 19-5. Aiming an improvised signal mirror—stationary object.

Flashlight or Strobe Light

At night you can use a flashlight or a strobe light to send an SOS to an aircraft. When using a strobe light, take care to prevent the pilot from mistaking it for incoming ground fire. The strobe light flashes 60 times per minute. Some strobe lights have infrared covers and lenses. Blue flash collimators are also available for strobe lights.

Symbols On the Ground

Spreading clothing on the ground or in the top of a tree is another way to signal. Select articles whose color will contrast with the natural surroundings. You can use natural materials to form a symbol or message that can be seen from the air. Build mounds that cast shadows; you can use brush, foliage of any type, rocks, or snow blocks.

In snow-covered areas, tramp the snow to form letters or symbols and fill the depression with contrasting material (twigs or branches). In sand, use boulders, vegetation, or seaweed to form a symbol or message. In brush-covered areas, cut out patterns in the vegetation or sear the ground. In tundra, dig trenches or turn the sod upside down.

In any terrain, use contrasting materials that will make the symbols visible to the aircrews.

The Ground-to-Air Emergency Code

This code (Figure 19-6) is actually five definite, meaningful symbols. Make these symbols a minimum of 1 meter wide and 6 meters long. If you make them larger, keep the same 1: 6 ratio. Ensure the signal contrasts greatly with the ground it is on. Place it in an open area easily spotted from the air.

Number	Message	Code symbol
1	Require assistance.	V
2	Require medical assistance.	X
3	No or negative.	N
4	Yes or affirmative.	Y
5	Proceed in this direction.	↑

Figure 19-6. Ground-to-air emergency code (pattern signals).

Based on U.S. Army Field Manual 21-76

TRAPS & SNARES

There are no catchall traps you can set for all animals. You must determine what species are in a given area and set your traps specifically with those animals in mind. Look for the following:

- ✓ Runs and trails.
- ✓ Tracks.
- ✓ Droppings.
- ✓ Chewed or rubbed vegetation.
- ✓ Nesting or roosting sites.
- ✓ Feeding and watering areas.

Position your traps and snares where there is proof that animals pass through. You may construct a perfect snare, but it will not catch anything if haphazardly placed in the woods. Animals have bedding areas, waterholes, and feeding areas with trails leading from one to another. You must place snares and traps around these areas to be effective.

Most animals will instinctively avoid a pitfall-type trap. Prepare the various parts of a trap or snare away from the site, carry them in, and set them up. Such actions make it easier to avoid disturbing the local vegetation, thereby alerting the prey. Do not use freshly cut, live vegetation to construct a trap or snare. Freshly cut vegetation will "bleed" sap that has an odor the prey will be able to smell. It is an alarm signal to the animal.

You must remove or mask the human scent on and around the trap you set. Although birds do not have a developed sense of smell, nearly all mammals depend on smell even more than on sight. Even the slightest human scent on a trap will alarm the prey and cause it to avoid the area. Actually removing the scent from a trap is difficult but masking it is relatively easy. Mud, particularly from an area with plenty of rotting vegetation, is good. Use it to coat your hands when handling the trap and to coat the trap when setting it. In nearly all parts of the world, animals know the smell of burned vegetation and smoke. It is only when a fire is actually burning that they become alarmed. Therefore, smoking the trap parts is an effective means to mask your scent.

Traps or snares placed on a trail or run should use channelization. To build a channel, construct a funnel-shaped barrier extending from the sides of the trail toward the trap, with the narrowest part nearest the trap. Channelization should be inconspicuous to avoid alerting the prey. As the animal gets to the trap, it cannot turn left or right and continues into the trap. Few wild animals will back up, preferring to face the direction of travel. Channelization does not have to be an impassable barrier. You only have to make it inconvenient for the animal to go over or through the barrier. For best effect, the channelization should reduce the trail's width to just slightly wider than the targeted animal's body.

Use of Bait

Baiting a trap or snare increases your chances of catching an animal. When catching fish, you must bait nearly all the devices. Success with an unbaited trap depends on its placement in a good location. A baited trap can actually draw animals to it. The bait should be something the animal knows, but not be readily available in the immediate area. One bait that works well on small mammals is peanut butter. Salt is also a good bait. When using such baits, scatter bits of it around

the trap to give the prey a chance to sample it and develop a craving for it. The animal will then overcome some of its caution before it gets to the trap.

TRAPS & SNARES

Simple Snare

A simple snare (Figure 8-5) consists of a noose placed over a trail or den hole and attached to a firmly planted stake. If the noose is some type of cordage placed upright on a game trail, use small twigs or blades of grass to hold it up. Filaments from spider webs are excellent for holding nooses open. Make sure the noose is large enough to pass freely over the animal's head. As the animal continues to move, the noose tightens around its neck. The more the animal struggles, the tighter the noose gets. This type of snare usually does not kill the animal. If you use cordage, it may loosen enough to slip off the animal's neck. Wire is therefore the best choice for a simple snare.

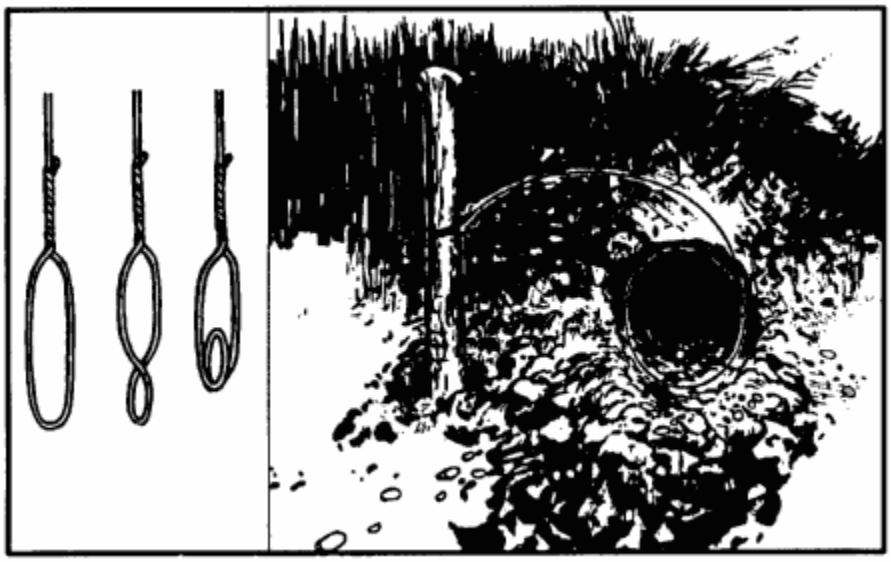


Figure 8-5. Simple snare.

Drag Noose

Use a drag noose on an animal run (Figure 8-6). Place forked sticks on either side of the run and lay a sturdy crossmember across them. Tie the noose to the crossmember and hang it at a height above the animal's head. (Nooses designed to catch by the head should never be low enough for the prey to step into with a foot.) As the noose tightens around the animal's neck, the animal pulls the crossmember from the forked sticks and drags it along. The surrounding vegetation quickly catches the crossmember and the animal becomes entangled.

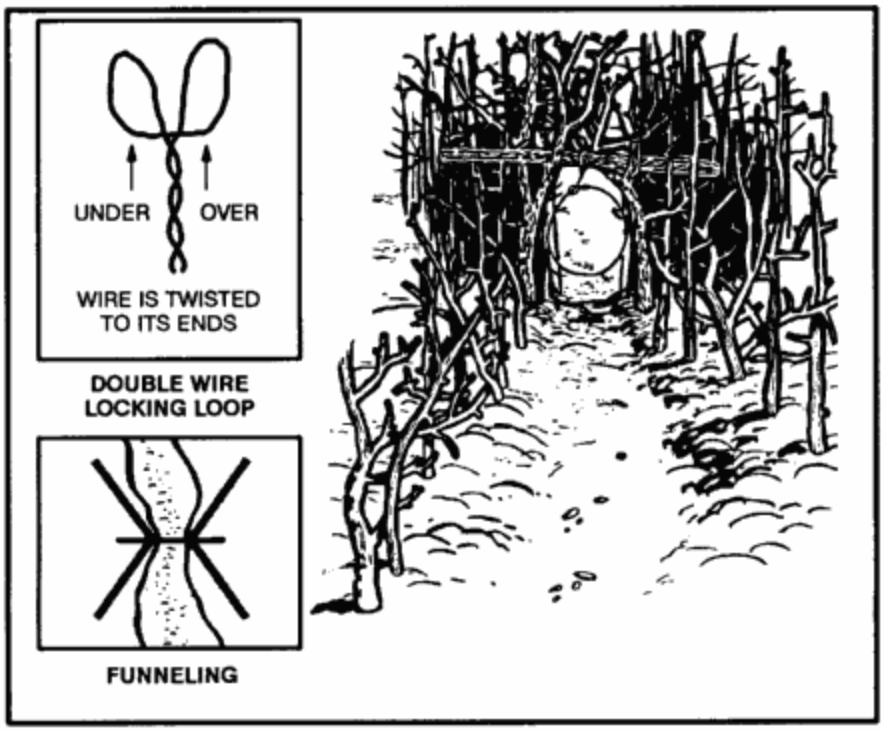


Figure 8-6. Drag noose.

Squirrel Pole

A squirrel pole is a long pole placed against a tree in an area showing a lot of squirrel activity (Figure 8-8). Place several wire nooses along the top and sides of the pole so that a squirrel trying to go up or down the pole will have to pass through one or more of them. Position the nooses (5 to 6 centimeters in diameter) about 2.5 centimeters off the pole. Place the top and bottom wire nooses 45 centimeters from the top and bottom of the pole to prevent the squirrel from getting its feet on a solid surface. If this happens, the squirrel will chew through the wire. Squirrels are naturally curious. After an initial period of caution, they will try to go up or down the pole and will get caught in a noose. The struggling animal will soon fall from the pole and strangle. Other squirrels will soon follow and, in this way, you can catch several squirrels. You can emplace multiple poles to increase the catch.

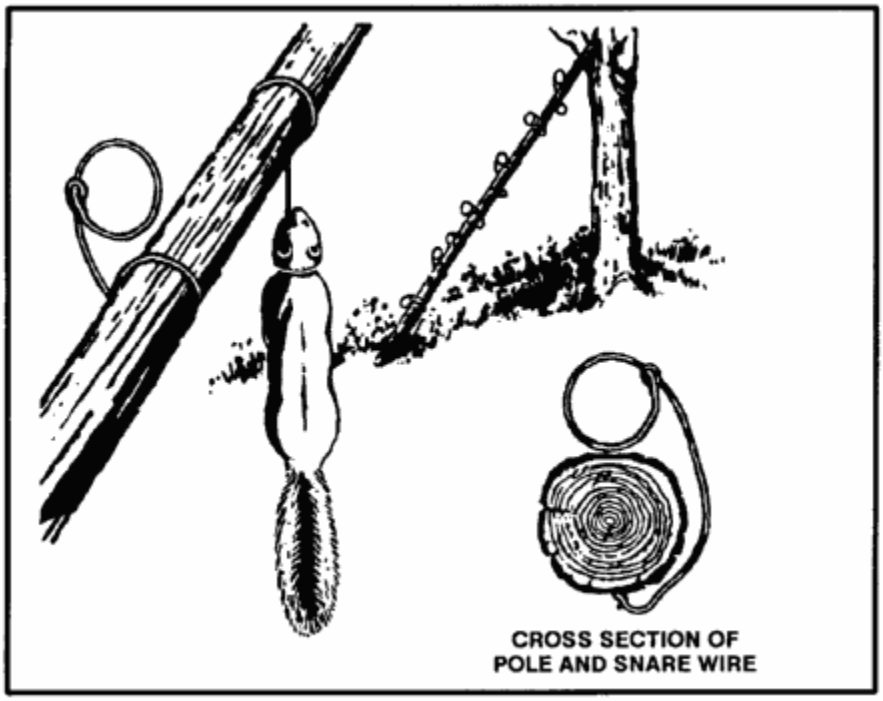


Figure 8-8. Squirrel pole.

Figure 4 Deadfall

The figure 4 is a trigger used to drop a weight onto a prey and crush it (Figure 8-12). The type of weight used may vary, but it should be heavy enough to kill or incapacitate the prey immediately. Construct the figure 4 using three notched sticks. These notches hold the sticks together in a figure 4 pattern when under tension. Practice making this trigger beforehand; it requires close tolerances and precise angles in its construction.

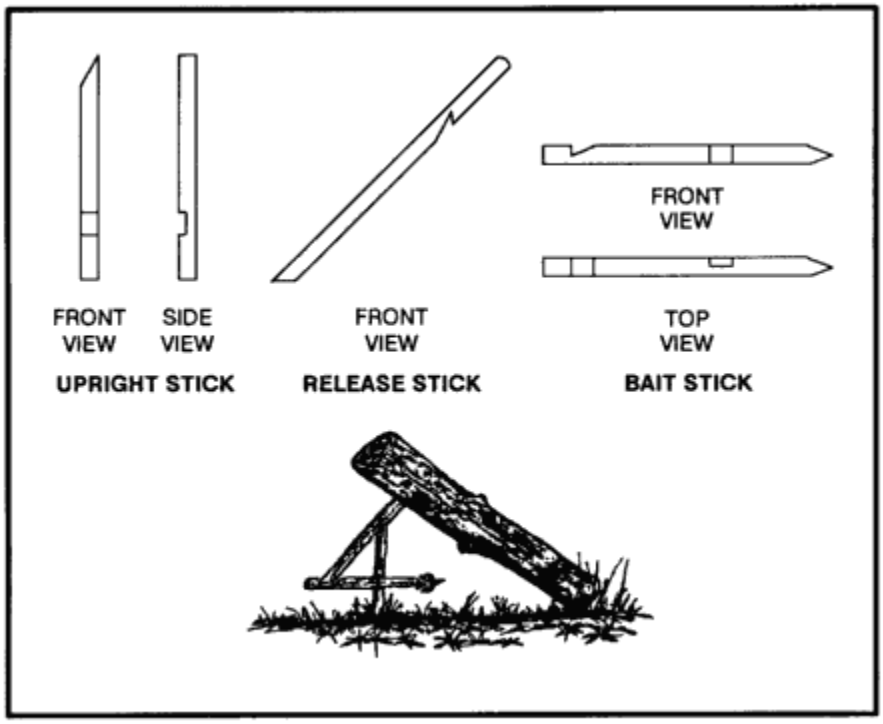


Figure 8-12. Figure 4 deadfall.

WATER

You must have water to live – simple but true. In very hot weather, you would survive only a few days without water. Even in cool weather, you could not live long without it. Do not try to ration water. Drink when thirsty.

Rainwater

Be ready to take advantage of rainfall. You can quickly gouge out a hole in the ground and line it with plastic to catch rainwater. Hollow tree stumps might contain water and hollow places in boulders will hold water after a rain.

Straining & Dew

When you need water, don't be finicky. You can strain water from mud using a bandanna or your shirt. You can squeeze water from the pulp of a barrel cactus. You can mop dew from leaves and rocks with a cloth and wring it out into your mouth. Indeed, if you tie cloth to your legs and walk through an area wet with dew, you can obtain a lot of water quickly.

Boiling & Treating

If you have access to water, it should be treated before drinking. If you have iodine tablets or a filter this can be effective. If not, you will need to boil it. Boil water for 1 minute at sea level, adding 1 minute for each additional 300 meters above sea level, or boil for 10 minutes no matter where you are. At Denver's altitude, boiling for 5-6 minutes should be adequate.

If you have water, but no way of treating it and are suffering from extreme thirst, go ahead and drink. Better to suffer and survive an intestinal disorder than to die from dehydration.

Still Construction

Above Ground Still

To make the aboveground still, you need a sunny slope on which to place the still, a clear plastic bag, green leafy vegetation, and a small rock (Figure 6-6). To make the still--

- ✓ Fill the bag with air by turning the opening into the breeze or by "scooping" air into the bag.
- ✓ Fill the plastic bag half to three-fourths full of green leafy vegetation. Be sure to remove all hard sticks or sharp spines that might puncture the bag.
- ✓ CAUTION - Do not use poisonous vegetation. It will provide poisonous liquid.
- ✓ Place a small rock or similar item

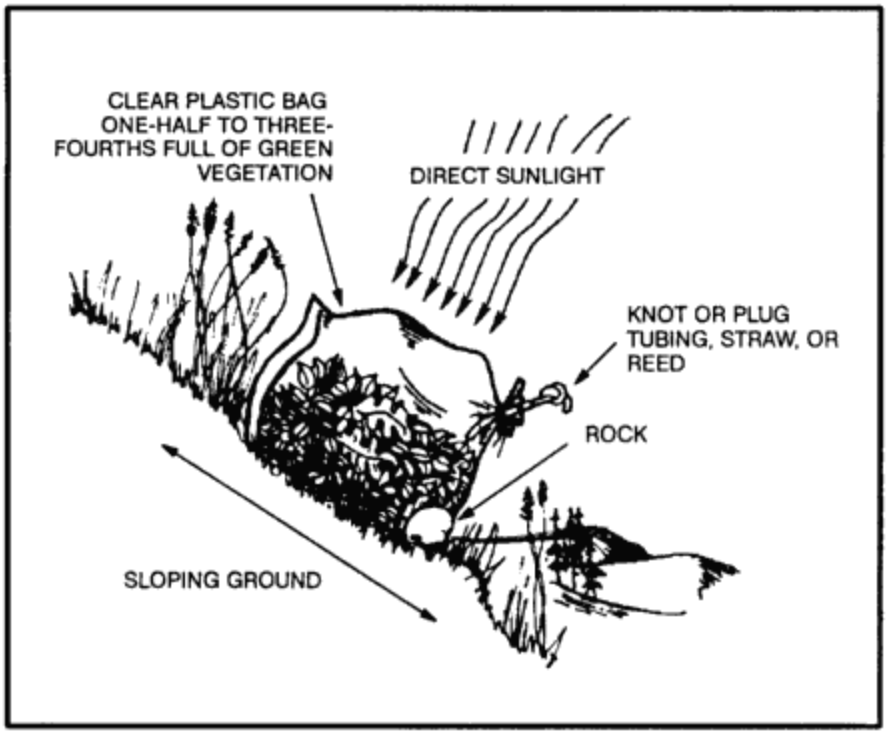


Figure 6-6. Aboveground solar water still.

in the bag.

- ✓ Close the bag and tie the mouth securely as close to the end of the bag as possible to keep the maximum amount of air space. If you have a piece of tubing, a small straw, or a hollow reed, insert one end in the mouth of the bag before you tie it securely. Then tie off or plug the tubing so that air will not escape. This tubing will allow you to drain out condensed water without untying the bag. Place the bag, mouth downhill, on a slope in full sunlight. Position the mouth of the bag slightly higher than the low point in the bag.
- ✓ Settle the bag in place so that the rock works itself into the low point in the bag.

To get the condensed water from the still, loosen the tie around the bag's mouth and tip the bag so that the water collected around the rock will drain out. Then retie the mouth securely and reposition the still to allow further condensation.

Change the vegetation in the bag after extracting most of the water from it. This will ensure maximum output of water.

Below Ground Still

To make a below ground still, you need a digging tool, a container, a clear plastic sheet, a drinking tube, and a rock (Figure 6-7).

Select a site where you believe the soil will contain moisture (such as a dry stream bed or a low spot where rainwater has collected). The soil at this site should be easy to dig, and sunlight must hit the site most of the day. To construct the still--

Dig a bowl-shaped hole about 1 meter across and 60 centimeters deep. Dig a sump in the center of the hole. The sump's depth and perimeter will depend on the size of the container that you have to place in it. The bottom of the sump should allow the container to stand upright.

Place the container upright in the sump.

Place the plastic sheet over the hole, covering its edges with soil to hold it in place. Place a rock in the center of the plastic sheet.

Lower the plastic sheet into the hole until it is about 40 centimeters below ground level. It now forms an inverted cone with the rock at its apex. Make sure that the cone's apex is directly over your container. Also make sure the plastic cone does not touch the sides of the hole because the earth will absorb the condensed water.

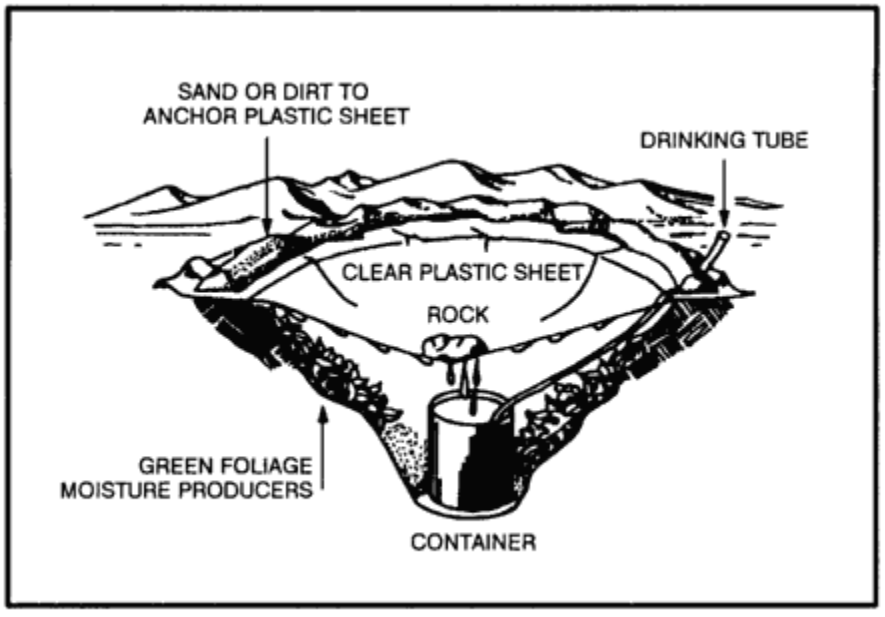


Figure 6-7. Belowground still.

Put more soil on the edges of the plastic to hold it securely in place and to prevent the loss of moisture. You can add a tube from which to drink water without disturbing the still by using the tube as a straw.