

More Backpacking Ideas



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Offered by the
HIGH ADVENTURE TEAM
Greater Los Angeles Area Council
Boy Scouts of America

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The High Adventure Team of the Greater Los Angeles Area Council-Boy Scouts of America is a volunteer group of Scouters which operates under the direction of GLAAC-Camping Services. Its mission is to develop and promote outdoor activities within the Council and by its many Units. It conducts training programs, sponsors High Adventure awards, publishes specialized literature such as Hike Aids and The Trail Head and promotes participation in summer camp, in High Adventure activities such as backpacking, peak climbing, and conservation, and in other Council programs.

Anyone who is interested in the GLAAC-HAT and its many activities is encouraged to direct an inquiry to the GLAAC-Camping Services or visit our web site at <http://glaac-hat.org/>. The GLAAC-HAT meets on the evening of the first Tuesday of each month at 7:30 pm in the Cushman Watt Scout Center, 2333 Scout Way, Los Angeles, CA 90026. These meetings are open to all Scouters.



REVISIONS

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Foreword

A challenging outdoor program, combined with leadership, skills, and character development, makes the Boy Scouts of America unique among organizations for young people. The BSA-National Council provides a lot of material on outdoor activities, but leaves the nature and extent of the Unit's program to its leadership. A goal of the High Adventure Team of the Greater Los Angeles Area Council (GLAAC-HAT) is to encourage and assist that leadership in making back-packing a major part of its program.

The diversity of California's mountains and deserts provides the opportunity for unequalled challenges and experiences. A weekend backpack trip is possible for any Unit, each month of the year. Scouts who participate develop hiking, camping, and conservation skills, become environmentally aware, and grow physically and emotionally. An annual long-term trek can be the crown jewel of every outdoor program. The GLAAC-HAT offers other Hike Aids and the Full Dimension High Adventure Training Program to assist and encourage the Unit leadership in developing and expanding its outdoor program.



“Traveling a mountain trail, away from centers of civilization, is a unique experience in Southern California living. It brings intimate association with nature - communion with the earth, the forest, the chaparral, the wildlife, the clear sky.”

John W. Robinson, Trails Of The Angeles

Introduction

Many fine instructional books are presently available about backpacking and other outdoor activities. They cover a wide range of subjects, in a manner appropriate to the general public. One or more are recommended for inclusion in the library of a High Adventure Unit (see Hike Aid 2, "Introduction to High Adventure Program Literature" and the syllabus to Adult Leaders Backpack Training for some suggestions).

The enclosed collection of topics covers matters that the author hopes will be of particular interest and importance to the Unit Leadership as it extends its outdoor program. This may be presumptuous, but then if only one or two provide some new idea or understanding, preparing this will have been worthwhile.



Group Size

The only formal guidance as to group size for a High Adventure outing covers minimums. BSA-National Council policy is that every sanctioned Scout activity must include two adults and two boys. The GLAAC requirement for earning a High Adventure award is that there be at least two adults and three Scouts on the outing.

In those areas of the West where one is required, the Wilderness Permit, et al., will limit the maximum size of the group. This may be as few as eight people, and rarely more than fifteen. The stated maximum for each crew at the Philmont Scout Ranch is twelve, but it will accept up to fifteen. Both of these practices are the basis for developing guidance on group size for Scout Leaders.

The GLAAC-HAT strongly recommends that the maximum size for any High Adventure hiking/backpacking group not exceed fifteen persons. When the number of participants in the activity is expected to exceed twelve, the Unit is urged to split the group into two or more independent crews. Each crew is to have two adults and a minimum of three boys. While the Unit Leadership is to determine the composition of the crews, it is recommended that it be done so that they can function on an equal and independent basis during the activity. Fast/slow, young/old, etc., are viewed as not particularly desirable criteria for determining crew composition. Each is to have leadership, food, and equipment sufficient to hike and camp without involvement with the other crew(s). Even when not restricted by Permit, etc., there are numerous advantages to keep the size of a crew to fifteen or fewer people.

- ◆ Multiple crews mean more adult participants. Two adults are not likely to be able to provide supervision for more than 10-12 boys in the manner that is necessary for most High Adventure activities.
- ◆ Several small crews will function more smoothly and hike better than a single, large group. Each additional person in a group geometrically increases the number of interpersonal relationships. Some Sierra Club outing leaders adjust the hiking/backpacking time allowance for group size.
- ◆ Several small groups that hike and camp separately are more readily accepted by other users of the backcountry than one large group.

- ◆ A small group, as individuals and collectively, is likely to be better behaved than a large one. A lower ratio of boys to responsible adults and fewer interpersonal relationships do wonders.
- ◆ An unexpected or emergency event is unlikely to impact several independent crews. The crew(s) not involved can provide assistance to the affected crew, without having directly experienced the trauma of the event.

As the provider of the world's premier outdoor program, Philmont's experience that a crew of 8-12 persons is the ideal size for High Adventure is worthy of consideration at the local level. The GLAAC-HAT urges Unit Leaders to plan and conduct their outdoor programs on this basis.



Master Schedule

The Unit Leadership has prepared the required Trail Profile and Trail Schedule for its outing, be it a day hike, or a weekend or long-term backpack trip. It now knows daily the Scheduled Hours of Backpacking and/or day hiking without a backpack. However, that should not be the extent of its planning for time. A Master Schedule for the outing also needs to be prepared.

This schedule begins with the time participants are to arrive at the Unit's assembly point and ends with the expected time of arrival home. It makes an appropriate time allowance for such things as:

- ◆ Shakedown and loading of equipment at the assembly point.
- ◆ Driving to and from the trailhead and assembly point/home.
- ◆ Car shuttles between beginning and ending trailheads.
- ◆ Loading and unloading equipment at the trailhead.
- ◆ Lunch breaks.
- ◆ Special activities, whether on the trail or in camp.
- ◆ Stopping to pickup any needed permits.
- ◆ Scheduled Hours of Backpacking and Day hiking.

It should note such additional things as:

- ◆ The time everyone is to be at the assembly point of departure.
- ◆ The time everyone is to be up each morning.
- ◆ The time everyone is to be ready to hike.
- ◆ The time and location of lunch breaks.
- ◆ The time of arrival at major trail destinations.
- ◆ The time pickup vehicles are to be at the exit trailhead.
- ◆ The time everyone is to be home.

Providing adequate time for all of the things that the Unit wants or expects to do during the outing and writing them down have two distinct benefits. Everyone can see what they will be doing and how much time is needed to do them. The Unit will not take on too many activities and run out of time. It also may eliminate some telephone calls among concerned parents who are wondering where their sons are and why they have not returned at the "estimated" time.

The following Master Schedule (Exhibit 1) for a long-term backpack trip is from the syllabus for Adult Leaders Backpack Training. That syllabus also discusses the complete planning and preparation for such a trip.

Exhibit 1: Sample Master Schedule

Saturday

Participants arrive at 7:30 AM at assembly point; pack vehicles.
Depart Unit assembly point at 8:00 am. Arrive Cottonwood Pack Station trailhead at about 2:30 (5 1/2 hour drive; 1 hour lunch stop). Setup camp; relax.

Sunday

Up at 6:00 am; on trail by 8:00.
Backpack to Long Lake; arrive about 2:00 pm. [BP-8.0 mi/5.4 hr]
Lunch at S.F. Trail Junction.

Monday

Up at 5:30 am; on trail by 7:30.
Backpack to Rock Creek Lake, with day hike to [BP-6.0 mi/4.2 hr]
summit of Mt. Langley. Lunch on summit, Mt. [DH-5.6 mi/4.5 hr]
Langley. Arrive at campsite about 5:00 pm.

Tuesday

Layover day.

Wednesday

Up at 6:00 am; on trail by 8:00.
Backpack to Guyot Creek; arrive about 11 am. [BP-4.4 mi/3.1 hr]
Lunch in camp. Day hike to summit of Mt. Guyot. [DH-5.2 mi/4.5 hr]
Back in camp about 5:00 pm.

Thursday

Up at 6:00 am; on trail by 8:00.
Backpack to Crabtree Meadows Forest Station. [BP-7.4 m/4.6 hr]
Lunch at Lower Crabtree Meadows. Arrive at
campsite about 2:30 pm.

Friday

Layover day. Option - leisurely backpack to
Guitar Lake for easier hike on Saturday.

Saturday

Up at 5:00 am; on trail by 7:00.
Backpack to Trail Camp, with day hike to summit [BP-8.7 mi/7.5 hr]
of Mt. Whitney. Lunch at Whitney Junction. [DH-4.0 mi/4.0 hr]
Arrive at campsite about 6:00 pm.

Sunday

Up at 6:00 am; on trail by 8:00.
Backpack to Whitney Portal; arrive about 11:00 am. [BP-6.0 mi/3.0 hr]
Leave about 11:30. Lunch in Lone Pine (1 hour).
Home about 5:00 pm (4.5 hour drive).

Totals: Backpacking, 40.5 miles; 7,427 feet gain; 27.8 hours.
Day hiking, 14.8 miles; 5,627 feet gain; 13.0 hours.

Getting Started

Knowing how long it will take the Unit members to get out of their sleeping bags and ready to hike in the morning is an important consideration in preparing a Master Schedule for the day. The amount of time between when the first person rolls out and when the last person begins to move out of the campsite can vary widely. Among the factors that come into play:

- ◆ Weather conditions and temperature.
- ◆ Training/general backpacking skills.
- ◆ Experience.
- ◆ Ease of breakfast preparation and cleanup.
- ◆ Number of people in the crew.
- ◆ Attitude.
- ◆ Preparation the prior evening.
- ◆ Cooperation among participants.

Of these, attitude (as in most human endeavors) is probably the most important.

An experienced Unit that has a “hot water” breakfast can do the “up and out” in an hour and a half, and sometimes less. For the Unit that dawdles around, this can drag on to three hours, or more. If the Trail Schedule calls for five or more hours of backpacking, that Unit can be in for a long, hot afternoon.

While a stove manufacturer may brag about how quickly its product can boil water, those few minutes really do not amount to much on the typical High Adventure outing. Working the factors stated above is how a Unit keeps the time that it takes to get on the trail to a minimum.

A number of little things that constitute good camp craft can save considerable time in the morning.

- ◆ Collecting and purifying water the night before, for use at breakfast.
- ◆ Filling all personal water bottles after dinner.
- ◆ Fueling stoves and cleaning the burners after dinner.
- ◆ Preparing cooking utensils after dinner for use at breakfast.
- ◆ Taking care of all first aid problems after coming off the trail, rather than putting them off until the Unit is ready to hike.
- ◆ Policing up the campsite after dinner, so that only a minimal sweep is needed just before the Unit departs.
- ◆ Stowing all equipment and clothing in the backpacks that will not be used overnight, rather than leaving them lying around the campsite or in tents.

Doing these little things make it a lot easier and faster to get the Unit moving in the morning. This means that the members can sleep in a little later, or that it can finish its scheduled activities earlier in the day. The Unit cannot control the weather or temperature, but good camp craft can ease their impact.



Dressing Down

Everyone is standing around at the trailhead or in the campsite getting ready to hike. They are wearing clothing that is appropriate for the current temperature and level of activity. After about 15 to 20 minutes of hiking, most will be sweating; some will ask for a rest break or a stop to remove clothing.

The time to remove heavy, early morning clothes is before starting to backpack. Everyone should be stripped down to what they would be wearing if the temperature were 20 degrees warmer. Requiring this provides two very definite benefits to the progress that the Unit will make over the next hour. It won't be stopping every five to ten minutes as different Scouts decide that they are over-heating and need a few minutes stop to remove clothes. Also, everyone will be anxious to start moving, having shed the comfy, cozy extra clothing.

On the other hand, participants should be encouraged to put on additional clothes when they take an extended break or arrive at a destination on a cool or windy day. A chill comes on quickly in those conditions and it's a lot easier to keep warm than it is to get warm. This reinforces the importance of clothing that are easily put on and taken off, and can be layered. Managing one's clothing is critical to maintaining a proper body temperature. Stowing them in an accessible spot in/on the backpack also makes this easier.



Marking A Route

Oh, to be Daniel Boone, marking a route through the wilderness. A swipe of the hatchet against the side of a tree to carve off a large piece of bark. Those marks, called blazes, are the basis for the phrase, "blazing a trail". Do not allow anyone ever to do this. A blaze is permanent, and injures the tree. In a literal sense, even a temporary marking of a trail is contrary to the "leave no trace" ethic. When the Unit is hiking on an established trail, there generally is no need to mark it in any way. However, there may be occasions when this is desirable. When done, trail markers should be prominent and frequent enough to be readily seen and understood.

The most common trail marker is a duck. It is made with three rocks stacked atop one another. The total height of the pile need not be more than a foot - just big enough to be seen and recognized as not being a natural occurrence. In locations where there are few rocks, such as a desert, or too many, such as a stream bottom, use flagging tape to mark a trail. Cut a roll of tape into two-foot sections and re-roll them on the spool before the outing. Tie a section to a bush or tree branch, in a visible spot, as you hike.

When hiking on snow or in a location where snowfall is expected, use a stick with a piece of flagging tape attached as a marker. The three-foot, bamboo canes sold in bundles by most nurseries work very well. They are lightweight, tough, and flexible. Push them well into the snow or ground and they will survive the strongest wind.

When it places a temporary trail marker, the Unit is responsible for removing it. Whether its use is to mark the route for those following a lead crew, or for the return, the last person is to take them down. The rocks in a duck are to be dispersed; flags and canes are to be retrieved and carried out.

Most of the trail signs shown in The Boy Scout Handbook are kind of cute, but not very useful for the typical High Adventure Program. As the members of the Unit or hiking crew must hike together, the use of even those marking techniques discussed here should be infrequent. However, carrying a roll of pre-cut flagging tape on each outing is probably good backpacking practice. Should the Unit have a need to mark the return route for a cross-country side hike or peak climb, it will have something to use.

The placement of any “permanent” trail markers is only to occur with the prior, written approval of the administering agency for the location, such as the U.S. Department of Agriculture - Forest Service (USDA-FS). This will generally occur as part of a trail development project, and under its direction. Well intended actions by hikers who mark routes in the belief that this is an aid to other hikers may, in fact, be misleading them. They are acting contrary to no-trace hiking practices and may be violating regulations and rules of the administering agency for the location.



The Local Flora

Southern Californians can enjoy marvelous diversity as to trees and plants, ranging from desert to sub-alpine in nature. As with the animal life, there are certain cautions to be observed when your Unit is out among them. In most instances, the best advice is to look, but not to touch. Many of the local plants, or their seeds or berries, are very poisonous. Two obvious examples are mistletoe and oleander. Unless you are with an expert who knows the local varieties, consider all mushrooms and fungi to also be poisonous. Even acorns, which were used as a food by the Indians, are edible only after proper preparation.

Poison oak and stinging nettle usually grow in the vicinity of water, at elevations up to 6,000 feet. Instruct your Scouts on their appearance, and mention it as you see them on your outings. Wash the skin as soon as possible after coming into contact with it. Most first aid lotions or sprays will help relieve the irritation. Clothing that has brushed against it must be changed before going to bed.

Much of the brush, or chaparral, that covers the lower elevations of the local mountains have thorns and leaves that are covered with an oily resin. Each is a nuisance, and together they can cause a nasty, infected scratch. Within this plant community, yucca is also to be found. The points on its fronds penetrate deeply, even through a leather boot, with little pressure. If someone comes into contact with one of these shrubs, remove any thorn, wash the wound, and apply a lotion or spray. Carry a quality tweezers in the Unit’s first aid kit for this purpose. The best advice is to stick to the trail when hiking. Most desert plants have spines or thorns. It usually takes only one encounter for a person to learn to treat them with respect. A cactus won’t jump at you, but you must use some care as to where you put your hands and feet. At all times and places, never allow anyone to be bare footed.

The final concern about the local flora, regardless of location or time of year, is that most of it burns very readily and with great ferocity. Treat a fire of any type with great care and know and obey all of the rules.



The Local Fauna

Wild Animals

You must accept that any animal, not on a leash, that you encounter in the out-of-doors is wild, and is a threat to your health and, potentially, life. This applies whether it's a cute little chipmunk or the big bad bear. Close contact with such an animal must be avoided. All participants on an outing need to understand this rule and follow it. Any animal can have ticks, lice, fleas, and other carriers of infectious diseases; their teeth and claws make nasty gashes.

Most generally, other animals will try to avoid humans; however, there will be occasions when you will come upon them and when they will seek you out. You can minimize the chances of meeting an animal that is unaware of your presence by being watchful and by listening to the sounds around you. You can also "walk hard", that is, make a small amount of noise as you hike. This is not to be confused with screaming and shouting or carrying electronic noise makers. Normal conversation, or even singing, will alert animals and help pass the time. Use the opportunity to talk about what you are seeing, hiking techniques, map and compass use, orienteering, etc.

Some rules for an encounter with an animal, particularly a predator:

- ◆ Don't go any closer.
- ◆ Don't make any rapid or sudden movements.
- ◆ Don't turn your back - be watchful, but avoid direct eye contact.
- ◆ Don't run - you can't outrun it and any predator will chase you.
- ◆ Don't approach an apparently hurt or sick animal - there is nothing that you can do for it and it can injure you.
- ◆ Don't approach a baby animal or get between the baby and its mother - the mother will immediately attack you.
- ◆ Talk calmly to the animal.
- ◆ Remain standing.
- ◆ Back away slowly and allow the animal to leave.
- ◆ Keep your group together.
- ◆ Pick up any small children.

If a predatory animal comes at you:

- ◆ Scream and shout - make lots of noise.
- ◆ Throw rocks, sticks, anything at hand.
- ◆ If you have food in your hand, pockets, etc., throw it away.
- ◆ Act threateningly; fight back.
- ◆ Do not turn and run, but back away quickly.

To avoid attracting an animal to your campsite:

- ◆ Camp away from water, trails, stoves, fire rings, etc.
- ◆ Keep a clean campsite.
- ◆ Always bag and hang all food and trash away from where you are sleeping (practice the Philmont Triangle).
- ◆ Never store food or eat inside a tent, except in the most extreme weather conditions; rig a dining fly.
- ◆ Clean all Unit and personal utensils after every meal.

- ◆ After eating, have everyone wash their hands in the soapy cleanup water, especially at night.
- ◆ An open fire will not scare off animals and may attract an angry Forest Ranger.

If an animal comes into your campsite:

- ◆ Act threateningly - the animal is now in your space.
- ◆ Make lots of noise - scream, bang pots, blow whistles.
- ◆ Throw rocks, sticks, etc.
- ◆ If at night, shine flashlights.
- ◆ If an animal gets into your food, let it have it. Never use any food in a package that is damaged by an animal.

Black bears, cougars, coyotes, and wild dogs are predatory animals to be found in the local mountains. If you are threatened by one of them, report it as soon as possible to the Forest Service. Never underestimate the danger represented by a pack of wild dogs.

Rattlesnakes are a special subset of this discussion. However, the same general rules apply, i.e., be observant, watch where you put your hands and feet, make some noise when walking, back off slowly, keep a clean campsite (dirty campsites attract small animals, which attract snakes). Do not throw rocks or sticks, or attempt to kill it; allow the snake to leave.

Remember that animals can be active at any time during the day, during any season, and in any weather. You may encounter them in any location in the local mountains and deserts. A hiking stove and a police whistle are useful items when you meet a wild animal. Make them a part of your regular High Adventure gear, if you have not already done so.

Observing an animal in the wild is an interesting and enjoyable experience. Just do so with care; you and the animal will both be better off for it.

Insect, Bugs, and Other Unfriendlies

You will encounter them, they are all a nuisance, and some of them can be life threatening. However, there are numerous actions which you can take to avoid them, independent of using an insect repellent.

- ◆ Wear long pants and light colored clothing.
- ◆ Keep a clean campsite.
- ◆ Camp away from ant hills, wasp nests, etc.
- ◆ Avoid hiking through, and camp away from, tall grasses, weeds, and brush.
- ◆ Look before moving rocks and branches.
- ◆ Camp away from water.
- ◆ Keep netting on tents zipped closed at all times.
- ◆ Mend holes and tears in tents at once.
- ◆ Don't wear smelly lotions or creams.
- ◆ Wash your hands after handling food.
- ◆ Keep away from wild animals, dead or alive.

Doing these things should reduce the frequency and quantity of insects encountered.

Use insect repellent sparingly on exposed skin. It can also be put on the cuffs of pants and shirts to keep bugs out. However, use care, as some repellents can affect the waterproofing or

other characteristics of a material. For this reason, never put it on tents or other items of equipment. Stick or lotion form is preferable to an aerosol spray, in that:

- ◆ you can put it exactly where you want, in the amount that you want.
- ◆ you are less likely to get it into inappropriate places, such as eyes, ears, nose, mouth.
- ◆ it is less bulky, lighter, and less costly.
- ◆ you can tell how much is left in the container.

When using an insect repellent, always follow the manufacturer's directions. Members of a Unit that are especially susceptible to bugs should be encouraged to wear a hat with mosquito netting attached to the brim. It may not look "rad", but it does keep the critters off.

Boys are to be instructed in the dangers of fleas and ticks. Everyone needs to be watchful and to brush them off immediately. If a tick is found embedded in the skin, remove it at once (refer to first aid literature for the proper method). Save it in a small ZipLoc-type bag for possible medical evaluation later.

The sting of a bee, wasp, scorpion, or similar insect carries a risk beyond the local skin irritation. Many more people die each year from a bee sting than from snake bite. Boys must be told to always report being stung by one of the aforementioned insects. Carry insect lotion and ampules in your Unit first aid kit to provide relief from the irritation (after properly removing any stinger). Any symptom of shock by the person stung represents a medical emergency; proper medical care must be obtained immediately. Upon returning home, the parents of a boy who was stung by a bee, wasp, or scorpion, or bitten by a tick or flea are to be told of the incident. Also, they should be told if a boy has been extensively bitten by any insect or has exhibited any reaction, other than a local skin irritation, to any sting or bite.

Other Persons

Everyone has an equal right to use and enjoy our public lands. Each of us also has an equal responsibility to protect the environment and to respect the rights of others. People go into the local mountains and deserts for many different reasons and with many different expectations. These differences, coupled with different attitudes about rights, responsibilities, and uses of public lands can create a potential for conflict.

As you meet other persons, your own and their enjoyment will be enhanced by following a few basic guidelines.

- ◆ Be friendly - smile, say "howdy", etc.
- ◆ Set a good example: obey the rules; control your group.
- ◆ Give the other person the benefit of the doubt.
- ◆ Where the situation warrants, offer aid or assistance. Most people that you will meet will be poorly equipped and will have no idea of how to care for themselves in the backcountry.

If you encounter someone whose behavior you consider inappropriate, back off. The USDA-FS instructs its volunteers to do only three things in such a situation: observe, record, and report. To attempt to do anything more could create a risk to you and to your Unit. Even in doing these things, use discretion. Above all, don't be confrontational, make threats, or, in general, sink to their level of behavior.

It is unfortunate, but true, that the most dangerous animal that you may meet in the out-of-doors is another person.



Peaks and Ridges

A challenge to climb, great places to view a sunrise, no place to stay. Weather in the local mountains and the Sierras can change quickly, any time of year. Persons caught on a ridge or peak are especially at risk to its impact. Rain, wind, snow - sometimes surprisingly late in the spring and early in the fall, and lightning can quickly change a pleasant experience into a disaster. In the Sierras, the prudent hiker observes a "one o'clock rule". You bag the peak and start off it and the high ridges by one o'clock. This is a good rule, anywhere and any time of year.

Be observant for the indicators of a change in weather, when hiking on them - wind, a drop in temperature, a sudden absence of birds and bugs, and a drop in barometric pressure - that usually precede clouds coming into view. At the speed with which they can move, the Unit has limited time to get to safety, once it sees them.

The biggest immediate risk is lightning. Many more people die each year from being struck by it than by a rattlesnake bite. On a peak or ridge, the Unit is totally exposed, even when there is "shelter". Staying in place and attempting to use whatever is there generally only increases the danger, as exemplified by the death of hikers every year or so who seek protection in the hut on Mount Whitney.

In addition to the risk of lightning, camping on a ridge or peak means that it will be colder and windier than a site lower down. The Unit will seldom, if ever find water in these locations. Finally, most summits are very rocky and offer very limited space for tents. It should be obvious, both for comfort and for safety, that selecting a campsite in a sheltered location, off a peak or ridge, is a prudent outdoor practice.



Hiking Staves

Back in the early days of Scouting, a hiking staff was a major part of the program. Lord Baden-Powell carried one regularly. The Scout Handbook identified numerous uses, beyond the obvious one of providing added stability under certain trail conditions. While generally overlooked now days, they still have a place in a High Adventure Program.

A sturdy pole, five feet long and 1-1/4 inch in diameter, works just fine. Buy one at the Scout Shop or a quality lumber yard. Carve a groove around it about an inch from one end and slip on a rubber or soft plastic furniture pad. The pad will provide positive traction on wet rocks and logs and keep the end from cracking. The groove helps to keep the pad in place, with or without a wire retainer. A coat of shellac or varnish will also prolong its life. Further ornamentation or adornment is up to the user. However do not put a metal tip or spike on the end; they are more of a hazard than a help.

Among the several uses of a staff in the Unit's outdoor program are providing stability on wet, rocky, and uneven hiking surfaces, and when making a stream crossing. It becomes a third leg at these times, a safety factor that can prevent a fall or a twisted knee or ankle. It is an aid to walking for the person who experiences one of these incidents. As the Unit begins to carry them, it will find additional uses on the trail and in camp.



Hiking In The Dark

Not the usual backpacking practice, but the Unit may want or need to hike in darkness on some outings. There is even a High Adventure award, offered by a Northern California Council for taking a night backpack trip.

Hiking on a clear, moonlit evening or in early morning before sunrise can be an exhilarating experience, within any well-planned High Adventure Program. It can be used to accomplish a given day's objectives, while avoiding the need to hike on a hot summer's afternoon, or to provide time for other activities. For some Units, hiking at night may be necessary to providing weekend backpack trips. Whatever the reason for it, hiking in the dark should be done with great care, to avoid or minimize risks which are greater than those of hiking in daylight. It can be argued that it requires a heightened awareness of the importance of planning, trained leaders, and safe hiking practices, however necessary these factors are to every outdoor activity.

When planning an outing that will include hiking in the dark it is mandatory to do all those things that should be a part of all trip planning. First among these is for several of the participating Adult Leaders to walk the trails and to visit the campsites to be used, unless they are already well acquainted with them. Knowing where the Unit is going and what it will encounter along the way and when it arrives in camp are vital to its safety. Another consideration is to allow a little extra time in the Trail Schedule for that portion to be hiked in darkness.

The careful selection of the route is a necessary step to a safe trip. It should involve a well established trail and campsite. Avoid those with obvious hazards, such as poorly maintained tread, deep stream crossing, narrow or steep pitches, etc. These conditions are not always apparent from the maps or trail guides, hence the earlier recommendation to hike the trail and visit the campsite. If you are not comfortable with what you see in daylight, imagine how you will feel in the dark. Remember that things seem different at night and that distant landmarks are not visible. When visiting a campsite, select a specific location for the Unit. It's no fun to awake to rain and find that the tents are in a drainage.

Take special note of the roads and the driving situation. Signs, landmarks, etc., are harder to see, so make note of odometer distances to road junctions, and other reference points. If the roadway to be driven at night is rough, narrow, or otherwise hazardous, make note and allow extra driving time in the Master Schedule.

There are no special equipment needs for a night hike. Everyone must carry a flashlight and should have extra batteries and a bulb. The person leading the Unit should have a large one, but the rest can be the small, AA battery type. All equipment must be in good condition, as repairs are difficult in the dark. Make certain that everything is properly secured and that all pockets on the backpacks are closed. There should be nothing protruding or flapping around to catch on an unseen snag.

Once the Unit begins to hike, stick to the plan; when you arrive at the campsite, use the planned setup. Keep the Unit together at all times. An adult should be leading and another should be trail sweep. They must always be within voice contact. Both should have participated in the trip planning and the trail visit. If there is any confusion about how to proceed, stop, take a deep breath, look at the trip planning, and consider what might have

gone wrong. The best decision may be to bed down at that spot - daylight will probably bring a solution. Remember that there is always a tendency to overestimate the distance covered. Use a watch to check the Unit's progress against the Trail Schedule.

Snakes and other animals are active into the late evening and in the early morning. Awareness is the main precaution, as they are more difficult to see. Anyway, the Unit should not be floundering around off a trail and in the brush, where they are more likely to be. Only in the event of an emergency should the Unit hike in the dark in bad weather. If it is bad, or threatening, before the start, delay the outing to another time. Don't even consider backpacking at night on a route that may be covered with snow or ice.

Plan a trip for a weekend with a full moon during the summer; there will be plenty of light and the participants will have a good time. Or, break camp before daylight and enjoy the special thrill of viewing a sunrise and having breakfast on a mountaintop.



Cutting Tools

Pocket knife, hatchet, saw - what to take when you backpack? Well, the knife is a "10 essential". Maybe the Unit can have a wood fire. Some of the tents and the dining fly have pins that must be driven into the ground.

Take the pocket knife; keep it with the ten essentials, for use in an emergency. On the typical outing, it will never be used. A sturdy knife, with one or two sharp blades of less than three inches in length is just fine. The Boy Scout and other multi-blade knives, while satisfactory, have a bunch of blades and gadgets that, typically, are never used. They are also heavy and costly.

When the Unit will need a knife for food preparation and cooking, carry the appropriate kitchen knife with the cooking gear. This is not a good use for a pocket knife. That knife will make the food dirty and the food will make the knife dirty. Not a good situation for either one. The other place to carry a knife is in the first aid kit. It should be small, very sharp, and easy to sterilize. Use it to cut bandages and for other first aid measures. These are not uses for the typically dirty pocket knife.

Forget about taking a hatchet and saw; the Unit won't use them because it won't be having a wood fire. The Forest Service, or other administering agency, regulations probably won't permit such a fire in most locations where the Unit will backpack. BSA-National Council policy now is that a wood fire is only for ceremonial purposes, in locations where permitted. Even where allowed, the Unit need not carry a hatchet or saw to have a fire. Any wood that you can't break up in your hands does not belong in it. The fire will be too large and the logs will not burn down to ashes before the Unit leaves. Also, forget about using them to make the "camp gadgets" that are shown too frequently in BSA literature. That stuff does not belong in a High Adventure Program.

A hatchet is not the tool for pounding tent pegs. Carry a small mallet, ball peen hammer, or similar item for this. They are smaller, lighter, and less hazardous; or, use a rock.

The other cutting tool that the Unit will probably want to carry is scissors. Small, sharp, high quality, all metal. Keep them in the Unit first aid kit, as this will generally be their use. The scissors on multi-blade knives are fine for personal grooming, nothing more.

The GLAAC-HAT recommends that Units and individuals carry only those cutting tools that are really needed and use them only to their intended purpose. For some Unit Leaders, this may represent a change from the “traditional” Camping program of the BSA. However, your High Adventure Team believes that these comments are appropriate to backpacking in the local mountains and deserts.



First Aid Kit

There are two types to consider for the Unit’s High Adventure backpacking program. They are a Unit first aid kit and a personal kit for each participant. The Unit kit will include those supplies as appropriate to deal with the backcountry emergencies that you hope will never happen. Each participant will carry a kit that has items for routine problems, personal medications or prescription drugs, and for chronic physical conditions.

The book, Mountaineering First Aid, has some excellent suggestions for the contents of the Unit’s first aid kit. They will not be repeated here, except as incidental in these supplemental comments about one.

- ◆ Put the items in a single kit or container, rather than scattered in one or several backpacks. This kit must go everywhere with the Unit.
- ◆ The first aider is not a substitute for a qualified medical provider. Do not carry items that you may not legally administer or use.
- ◆ Carry the signed "consent to obtain emergency medical treatment" forms in this kit. You will have them at hand when you need them.
- ◆ A quality pair of small, blunt-end scissors and a needlepoint tweezers are essential.
- ◆ Paper, pencil, change (quarters), and matches; non-first aid items, but appropriate in this kit.
- ◆ A small container of iodine tablets for water purification as a backup.
- ◆ A small first aid guide. First Aid Fast, issued by the American Red Cross or Mountaineering Medicine, by Fred T. Darvell, M.D., are excellent for this kit. The Unit Leadership may feel that they are sufficiently skilled to make this an unnecessary item. However, there are at least three good reasons for taking one and using it anyway.
 - It is always possible to forget or overlook something in a medical emergency.
 - It provides emotional comfort to the patient, and the first aider, that appropriate actions are being taken.
 - Its use constitutes “due diligence”; going by the book helps demonstrate having done the right thing.
- ◆ Blank copies of the “First Aid Report Form” shown in Mountaineering First Aid.
- ◆ A list of items in the kit. In an emergency, it is not unusual to overlook the resources available.

Put small items, e.g., adhesive strips, butterfly bandages, moleskin, in small, plastic bags. This will keep them clean, dry, and together. Replace items promptly as they are used; do an inventory of contents before each long-term backpack. Everyone should know the location of

this kit and should be encouraged to have any problem treated immediately. There is no such thing as a minor first aid problem on a backpacking trip. Left untreated, it can quickly become major.

Each participant must carry those items necessary to his/her personal needs. For most of them, this will be little more than some moleskin, adhesive bandages, lip balm, insect repellent, and sun screen. Some may need to carry a medication or prescription drug; the adult leaders should be informed when this happens. In a similar fashion, each participant must expect to carry whatever is needed to deal with an existing physical problem, such as a "trick knee". The Unit first aid kit is for emergencies. If its limited resources are used by persons with a preexisting condition, they will not be available when needed for an emergency.



Cold Weather and Stoves

All stoves lose some of their heating ability in cold weather, and the higher the altitude the more the loss. Some types are inherently poorer in these conditions than others. The Unit Leadership needs to understand the cold weather characteristics of the stoves it uses.

Regardless of the type of stove, certain actions can be taken to improve its performance when the temperature drops. The first is to keep it clean and in good mechanical repair. Check it out before and after each outing. Seals and gaskets eventually age and split. Clean the burner orifice to remove carbon buildup. The second action is to protect the stove and fuel container/canister from extreme cold.

- ◆ Put them inside an insulated storage bag.
- ◆ Do not leave them setting directly on the ground or snow.
- ◆ Protect them from the wind.
- ◆ When using a stove that has a detachable fuel canister, keep it in the tent, or put it in a stuff bag and place it inside a sleeping bag.

Should a fuel canister become extremely cold, warm it by putting it in a jacket or parka pocket. Never attempt to warm one by placing it near a fire - it will explode.

Another action that will improve stove performance is to place it and any attached fuel canister on an insulation pad. A one-foot square section of worn out, closed-cell sleeping pad works just fine. However, a very hot stove will cause charring and spilled white gas will burn it. Avoid these problems by gluing a thin sheet of masonite or similar material to the top with contact cement. If you want to go further, glue aluminum foil to the top of that. This cooking pad, a wafer of foil on top, masonite in the middle, and insulation foam on the bottom, will conserve stove heat and provide a stable surface for cooking on snow. Works great.

Carry extra aluminum foil, to build supplemental wind screens and to conserve heat. However, be certain to allow sufficient air circulation to sustain a strong flame and to avoid overheating. An overheated stove can explode or vent gas through a relief valve. Not fun happenings.

Cooking in cold weather is enough of a challenge, without having a stove misbehave. However, most generally the cause is a lack of care and skill by the user, rather than a stove defect. Taking these simple steps will have the Unit with hot food and drinks in any weather.



Tents

When I was a Boy Scout, a tent consisted of two canvas shelter halves and a separate ground-cloth. It was heavy, smelled bad, and came in one color - olive drab. You trenched around the edges and didn't touch it when it rained. Nowadays, a tent is high-tech and high fashion; its purpose, however, remains the same. In its expanded list of "ten essentials", The Mountaineers of Seattle includes a personal shelter. Carrying sufficient tentage to protect all participants in "bad weather", regardless of location or time of year, is prudent backpacking practice. The obvious reason for taking a tent is protection against rain and snow. However, a tent also provides protection against wind and insects. It provides privacy and a feeling of security, matters of some concern to younger Scouts.

Tents are expensive, but invaluable when you need them. Your first concern is function, not fashion. A double-walled, dome tent of early design is as serviceable as this year's high-tech creation. Just so it is "3-season" and waterproof. It doesn't need to be "expedition quality", unless you expect to do Sierra treks in mid-winter, but it must be able to endure twelve hours of driving rain without soaking through the fabric. A tent which is described as water repellent won't hold up in those conditions (which you can experience in the local mountains, even in mid-summer). This generally means that the inner surface of the bottom and the rain fly will be of coated nylon fabric. This plastic coating is what keeps the rain out; it is also what keeps the moisture from respiration in, in a single-walled tent. One common disadvantage to all tents made in the "pup tent" style, is that they are not free-standing, as are the many mutations of dome tents. A free-standing tent makes life so much simpler when it is being erected on snow, loose sand or a rocky surface, or in a confined space. However, they are heavier and more expensive than a single wall tent.

Which illustrates that there are a number of factors to consider when buying a tent. Look at the various types that are offered by local backpacking stores and through suppliers' catalogues. Some of these stores rent tents, which can provide you the opportunity to try something before buying. While many suppliers offer new designs each year, your concern should always be the same - the adequacy of protection that the tent provides as the Unit conducts its High Adventure Program.

A tent is a major investment, so it deserves proper care. Many of them require the buyer to waterproof the exposed seams, and provide the material to do it. Follow the manufacturer's directions diligently, as a surprising amount of water will seep through an improperly sealed seam. Also follow the instructions on caring for and using it. Allow a tent to air and dry after each use and before storage. Inspect the fabric, zippers, tie-lines, hardware, etc., regularly and make needed repairs at once. Remind the members of the Unit to report any problems as they occur.

Nylon backpacking tents are fragile. Horseplay in and around them cannot be permitted. Backpacks and boots do not belong inside them. They will also burn very quickly, another good reason for not having an open, wood fire. The other action which will extend the life of a tent is to carry and use a ground cloth with it. This can be a piece of 4 mil polyethylene, cut slightly smaller than the floor of the tent. This will help keep the bottom clean and protect it from small stones, sticks, and weeds. Make your own; it's cheaper than those that are commercially available. Also, don't bother with those poncho/ground cloth combinations; you'll soon ruin it, as a poncho.

As to a tube tent, it is the opinion of the author that its only potential value is as an emergency shelter. It is not satisfactory as a primary shelter, any time of the year or for any location. As an emergency shelter, a large sheet of 4 mil polyethylene and several pieces of nylon cord may be just as effective, at a lower cost.

The members of the GLAAC-HAT have had vast experience with tents and other pieces of backpacking equipment. As the Unit considers buying, or recommending that its members buy, a tent, seek them out and ask for their advice and opinions. They represent a resource to aid the Unit Leadership in making a decision about this important item of High Adventure Program equipment.



Food Allergies

Probably the last thing that the Unit Leadership wants to worry about in planning a menu is the possibility that a participant may be allergic to a particular kind of food. Dairy products and shellfish are the ones that probably come most readily to mind. However, medical researchers announced in early 1997 that about 4% of young persons are allergic to - are you ready for this - peanuts. Yes, that component of just about everyone's basic trail snack, GORP, can cause a medical problem. This finding is apparently an increase from the previous rates, and the incidence of allergy may be continuing to increase.

Short of automatically rejecting any item of food that might be a potential cause of an allergic reaction, what is the Unit Leadership to do? An obvious action is to ask parents if their sons have any food allergies. Menu planners must be aware of allergies and food restrictions for all participants. Get in the habit of reading all food labels and planning menus that will not result in a medical emergency in the wilderness.

An allergic reaction to a food item may range from mild to intense anaphylactic shock. This latter condition is an extreme medical emergency, with the person needing immediate medical care. Not the sort of thing you want when in the backcountry. Awareness of the possibility is the first step in prevention. Hike Aid 9, "Risk, Health, and Safety", has a complete discussion of the symptoms and first aid measures for anaphylactic shock.



Medication Allergies

Aspirin, antacids, antihistamines ..., these, and similar over-the-counter remedies are on just about every list of recommended contents for a first aid kit. There is just one problem; these, as well as other prescription and non-prescription drugs do cause an allergic reaction in some persons. On this basis alone, they do not belong in a Unit first aid kit. Also, and it may seem a long stretch, the Unit Leader who is not a doctor and who gives any of these items to a Scout other than his/her son may be considered to be practicing medicine without a license.

Scouts with known allergies or other medical problems should carry their own medication and know how and when to use it. They should also wear a "Medic Alert" bracelet describing their condition. The balance of the participants should probably carry their own over-the-counter remedies for simple maladies, such as a headache, with the knowledge and consent of their

parents. Adult Leaders must ask parents what medical problems and allergies their sons have and what prescription or over-the-counter drugs they will be taking on outings. They should remind all participants on each outing to immediately advise them of any health problem and of any drug that they are taking for it.

A headache may be a temporary annoyance, or a symptom of a medical emergency. Treating it with an over-the-counter remedy may be totally inappropriate. Headaches and anaphylactic shock are discussed in detail in Hike Aid 9.



Hantavirus, etc.

In June 2012, an outbreak of Hantavirus in Yosemite National Park infected 10 people, killing 3. The virus was traced to the Curry Village Campground and by December, 91 cabin tents had been demolished in efforts to contain the spread of the virus. This should serve as a reminder and a warning to High Adventure leaders. Infectious agents, such as hantavirus, bubonic plague, Rocky Mountain spotted fever, et al., are always present in the local mountains. They are usually carried or transmitted by small animals, such as mice and squirrels. Health officials, who close locations that have an unsafe concentration, closely monitor the severity of infestation of infectious agents. As a consequence, people become infected so infrequently as to warrant media coverage.

The prudent leader takes the following actions to ensure the health of Unit members:

- ◆ Stays out of locations that are closed - look for bright yellow signs with black print.
- ◆ Hikes on trails, avoiding brush and weeds.
- ◆ Camps in locations that are clear of brush and weeds.
- ◆ Pitches tents away from rodent burrows.
- ◆ Keeps a clean campsite.
- ◆ “Bear bags” all food and trash.
- ◆ Keeps everyone away from all animals, alive or dead.

Keeping away from and not attracting animals minimizes the risk of contracting one of these diseases. Further actions to reduce exposure to the insects that are carried by these animals are to wear long pants and a long sleeved shirt, and to apply insect repellent around the ankles and wrists.

Parents are to be advised immediately upon returning from an outing when there have been contacts with rodents, or when ticks or fleas have been found on clothing. Medical care must be obtained for any participant who develops flu-like symptoms.



Skin and Nail Care

As people age, their skin and nails become thinner. The harsh, dry environment of the deserts and mountains, that is typical of backpack trips, causes adults to be especially vulnerable to their chapping and cracking. Several actions can be taken to prevent or relieve these annoying, painful conditions.

- ◆ Keep the hands and face clean and dry.

- ◆ Carry a small (2-3 oz.) container of quality, hypo-allergenic hand lotion. Apply it regularly to the hands and face. It can also be used on lips and inside nostrils to relieve dryness.
 - ◆ Trim fingernails before an outing and apply one or two coats of clear nail polish. This strengthens the nails and reduces the extent of any splitting that does happen.
- Doing these things should help alleviate some of the minor nuisances of participation in a High Adventure Program.



Feet

Them that got you there have got to get you back, so you must give them proper care. For most of the Unit's High Adventure trips, the only medical problem that anyone is likely to have will involve their feet. Proper fitting boots, well broken-in and in good condition, and good socks, well fitting and without holes, are necessary to keeping this from happening. Participants on backpacking trips need to be reminded periodically to keep their toe nails carefully trimmed, with no sharp corners that could cut into the adjacent toes. Wearing two pair of socks, a light-weight inner sock and a heavier wool outer sock, will help to prevent blisters. Changing to a clean pair each day also aids in blister prevention.

Take care of hot spots and blisters immediately, as they only get worse. This is an individual responsibility, but the Unit Leadership must encourage the participants to do so, even when it seems to cause an unnecessary delay. Never leave a person, or split the Unit, while he/she attends to a problem.



Personal Weight

One of the most overworked news stories is the generally poor physical condition of most people in this country. Overweight and a lack of exercise - but, you don't have to read about it, just look around. Now, look at the Scouts and adults in your Unit's High Adventure Program in this context. Does the program recognize this situation and make appropriate accommodations?

The following table is from the BSA Annual Health and Medical Record and is based on the revised Dietary Guidelines for Americans from the U.S. Department of Agriculture and the Department of Health and Human Services.

Persons whose weight approach the maximum are to be discouraged from participation in High Adventure. Persons at these weights are at extreme risk for health problems if they do. Certainly, persons whose weight exceeds the mid-range values probable are carrying it as fat. Such persons are unlikely to be able a carry a pack weight established at the 20-25% guideline based on their total weight. This is why weekend backpacks that are easy are a necessary preliminary for assessing physical ability and medical condition before all strenuous outings, and especially every long-term backpack.

<u>Height</u>	<u>Recommended Weight (lbs)</u>	<u>Maximum Acceptance (lbs)</u>
5' 0"	97-138	166
5' 1"	101-143	172
5' 2"	104-148	178
5' 3"	107-152	183
5' 4"	111-157	189
5' 5"	114-162	195
5' 6"	118-167	201
5' 7"	121-172	207
5' 8"	125-178	214
5' 9"	129-185	220
5' 10"	132-188	226
5' 11"	136-194	233
6' 0"	140-199	239
6' 1"	144-205	246
6' 2"	148-210	252
6' 3"	152-216	260
6' 4"	156-222	267
6' 5"	160-228	274
6' 6"	164-234	281
6' 7"	170-240	295

*“If you exceed the maximum weight for height as explained in the above chart and your planned High Adventure activity will take you more than 30 minutes away from an emergency vehicle/accessible roadway, you **will not** be allowed to participate.”*
 BSA Annual Health and Medical Record

By way of an example, Philmont Scout Reservation does a medical check upon the arrival of the Unit; persons who fail are not allowed on the trail - no exceptions.

Of course, being trim is not enough. Successful, enjoyable participation, without health risk, requires that persons engage in a regular aerobic exercise program.





"We are now in the mountains and they are in us, kindling enthusiasm, making every nerve quiver, filling every pore and cell of us."

John Muir