Sleeping Out in Winter

BECAUSE IT'S LIKELY that the temperature will fall to its lowest during hours of darkness, winter campers need to pay special attention to sleeping warmly. Smart outdoor people develop what some call a "sleeping system".

Such a system includes both equipment and clothing you use when bedding down. Cold weather enthusiasts often will spend more time on refining their sleeping systems than on any other aspect of winter camping.

Adequate insulation, underneath as well as on top, is most important. In fact, insulation underneath can be the more important of the two locations, since the cold ground can conduct heat away from you much faster than the frigid air above.

So you must consider both insulation above and below in planning a winter outing. One night spent shivering in a sleeping bag is likely to destroy your enthusiasm for cold weather camping. Conversely, the snug warmth of a properly-constructed sleeping system will confirm to the camper that he has successfully met the challenge of camping out in winter.

Here are the key factors to consider in any sleeping system:

The Sleeping Bag

Most Scouts have a sleeping bag but few have one that is adequate for spending a night in subfreezing temperatures. A winter-weight bag costs lots of money, and you don't need it for camping in other in the camping seasons. So consider some cheaper alternatives:

- Use a bag within a bag. Two lighter-weight sleeping bags may be combined, one inside the other, to achieve or surpass the insulating ability of a winter-weight bag. However, to be effective the outer bag must be big enough to hold the inner bag and the sleeper without compacting the fill of either bag. It is the loft of the fill that traps warm air and provides sleeping comfort. If the loft is squeezed out when the two bags are used together, neither bag will provide much warmth.
- A sleeping bag liner is a good way to upgrade your system for winter conditions. It is designed specifically to fit inside a sleeping bag, so you avoid the compression problem noted above. A liner is customarily filled with goose down, pile, or other synthetic material to provide maximum insulation with a minimum of bulk. A liner can be fairly expensive, but you can use it alone as a warm-weather bag.
- Improvise a liner with a blanket. Fold the blanket lengthwise to form an envelope into which you slide feet first. Overlap the edges of the blanket to prevent drafts. Fold the bottom under to avoid bunching as well as drafts. But leave enough room so your feet aren't cramped. Follow the procedure described in the camping chapter of The Scout Handbook. Be sure, however, to leave enough room in the bag for you, your sleeping clothes, and the liner, without compressing the fill of your bag.

The Sleep Mat

The earth acts like a huge heat sponge absorbing warmth from any object that comes in contact with it. While this heat loss is often imperceptible to campers, they attempt to interrupt its flow by placing an insulation barrier between themselves and the soil. Here are some suitable barriers:

- A closed-cell plastic foam pad at least 3/8-inch thick is ideal for winter camping. Open-cell plastic foam, on the other hand, would have to be at least two inches thick to provide the same amount of insulation. Also, closed-cell foam won't absorb water the way open-cell foam will, which means you can use the same mat in winter and summer.
- A Therm-A-Rest mattress, or one of similar design, is a combination foam pad-air mattress and provides superior protection. The foam prevents contact with the cold ground and also creates small pockets of warm, insulating air. The mattress cover is waterproof and self-inflating. However, the cost of such bedding is high, usually between £40 and £70 for a brand name, but sometimes less for a “look-alike" pad.
- Layers of newspaper inside a thick, plastic bin-liner act like a sleep mat. The layers should be thick enough to provide a good barrier between you and the ground. You may want to limit use of this substitute to car camping, however, because carrying enough newspapers would add too much weight for backpacking.

Three more points to note about sleep mats:

(1) A conventional air mattress is not satisfactory for winter camping. Although it prevents contact with the ground, the air in the mattress will assume the same temperature as the air around it. While you may think of the mattress as filled with "dead air," the space is too large and the insulation too poor to prevent loss of body heat.

(2) Any sleep mat should be the full length of a camper's body. Three-quarter-length mats are not adequate for winter. Even a small cold spot such as your feet dangling over the end can drain heat from your body. If you don't have a full-length mat, place an extra foam mat, newspapers, or a tarp to extend the mat. For two people sleeping side by side, you may lay two 3/4-length mats lengthwise, then another crosswise at top or bottom for a full-length mat for the two.

(3) A heat-reflecting "space blanket" is O.K. for a ground cloth, but some outdoor people do not place much faith in it when used on top of the sleeper. Atop the sleeper it will reflect heat, but it will also create a vapor barrier, causing body moisture to condense on the blanket's underside and drip onto the sleeping bag.

Sleeping Clothes

Some camping experts suggest that the best way to sleep warm is to sleep nude. If you've got the perfectly-proportioned bag, this may work. Better is the “layering method," in which you wear sleeping clothes that trap a layer of warm air close to the body.

Sleeping clothes should be clean, dry, and loose fitting. They should not have tight elastic cuffs or waists. A hooded sweatshirt and pants, are good.

Never sleep in the clothes you wore during the day. Body oils and perspiration can clog clothing fibres, reducing their insulating ability. Moisture in your clothes, whether from perspiration or otherwise, will have the effect of cooling your body as it evaporates.

Avoid cotton. Synthetic fibers, especially polypropylene, help keep you warm by wicking moisture away from the body. Cotton is inferior in this regard.

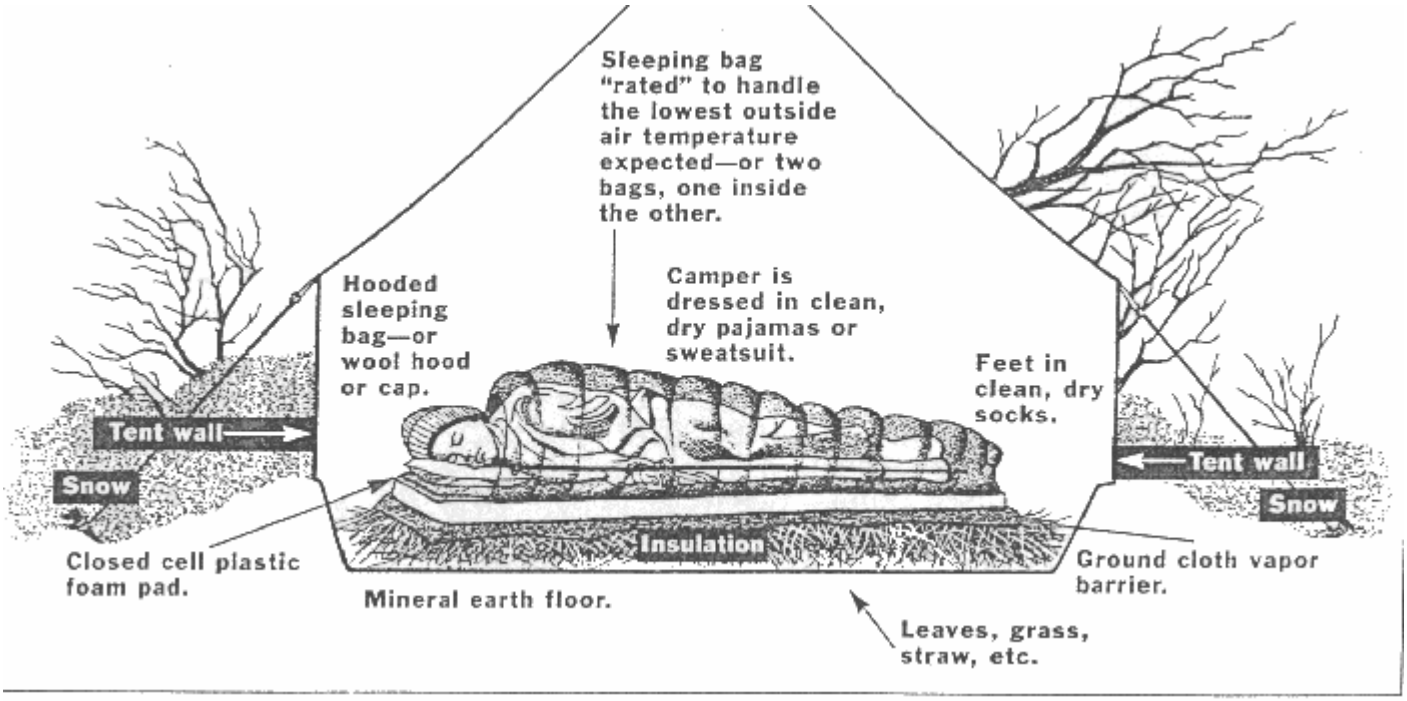
If your sleeping bag does not have a shoulder collar, you may also need an extra layer of clothes or a sleeping hood to protect your shoulders from the cold.

Other Reminders

- Protect your head and neck. You can lose up to 80 percent of your body heat through this area. Even the best winter bag won't keep you warm if your head and neck aren't properly protected. Even when wearing a hooded sweatshirt you should also put on a woolen hat that can be pulled over your ears, temples, and forehead. A balaclava (pull-down cap with face cutout) or ski mask-cap are even better.
- Provide extra protection for the feet. A loose-fitting pair of clean, wool socks may be a good choice to keep your feet warm. Or wear an extra pair of boot liners or homemade pair of booties from open cell foam, pile, or Polarfleece.
- Use a sleeping system duffel bag. This keeps you from having, to leave a warm sleeping bag in the night to retrieve something in your backpack outside your shelter. Keep all your sleeping clothes in a separate stuff sack or duffel bag that can be taken into the shelter at night. In that bag should also be any essentials for the night: any medicines you need, a small bottle of drinking water, small flashlight, lip balm, handkerchief, reading material, bedtime snack, morning snack, and clean underwear and socks for the next morning.

One additional area deserves some attention: the dreaded winter nighttime call of nature. Some veteran campers advocate using a "pee-can" for male campers. This is a widemouth plastic bottle with a secure screw cap. (Be sure to mark the bottle with a clear identification.) A stick tied to the bottle that can be both felt in the dark and seen in daylight is also helpful.

Armed with this knowledge and gear, you and the young campers you instruct should enjoy a sound winter night's snooze.



Planning For Winter Camping

Most of this information can be found in the Boy Scout Handbook. If you are going to be doing a lot of outdoor activities, this book is an invaluable source of know-how and advice.

"One has to lie deep in the snow to learn how warm and protective it is. A den in the snow confines the body heat like a blanket or overcoat. It is a snug place, no matter how hard the wind may howl. One who holes up in the snow understands better the mysteries of the woods in the winter. He knows why the severe weather grouse squirm their way under soft snow and be quiet. He understands why deer bury themselves in drifts, lying a half day or more with just their heads sticking out. He learns something of the comfort of the bear in hibernation."

William O. Douglas, 1950

Misconceptions About Winter Camping

Myth No 1: Leather hiking boots will keep your feet warm. -- FALSE

- The snug fit of most leather hiking boots can limit the circulation of blood in the foot. Especially with thick socks on. Overboots cut generously enough to hold your foot and shoe are much more effective. The cloth stitching in leather boots can also wick moisture into the shoe. Nothing is worse that wet feet in cold winter.

Myth No 2: Waterproof clothing is ideal for cold weather camping. -- FALSE

- To keep warm, in the cold, your clothing must allow body moisture to escape. Moisture that is trapped too close to the body can wick heat away through evaporation. It is better to layer your clothing on in cold weather. Wool, Gor Tex, and polypropylene garments work nice in the cold. Always wear insulated underwear.

Myth No 3: Winter camping does not require much preparation. -- FALSE

- Arctic conditions exist when the wind is blowing and the temperature drops below 20 degrees F. There are only seven states in the U.S. that do not experience arctic weather. Indiana is not one of them.. It is very important to prepare and even over prepare. I've never heard anyone complain about being too warm or having too many dry clothes on a winter campout.

Myth No 4: Mental attitude has little to do with winter camping. -- FALSE

- A positive mental attitude is the most important ingredient in the success of cold weather camping trips. The demands of winter will drain your energy and you'll have to rely on yourself to keep your spirits high.

Myth No 5: In cold weather, tasks can be done just as quickly as in warm weather. -- FALSE

- Every effort in cold weather takes longer to complete. Be sure to bring some winter patience with you when you camp in the cold.

Conserving Body Heat - The Prime Objective

There are three ways to lose body heat. Keeping them in mind will help you be much more aware of what you are or could be doing to keep your body warm.

RADIATION - The emission of body, especially from the skin areas exposed to the elements. A good set of gloves, hat, and scarf can help best in keeping bare skin to a minimum.

CONDUCTION - The absorption of cold by the body when sitting or laying on cold ground, or handling cold objects such as metal cooking utensils and metal canteens. This is why a decent sleeping pad is required for cold weather camping. The same goes for wearing gloves. A camp stool is a must on a winter camping trip. Try not to sit on the ground.

CONVECTION - The loss of body heat due to wind blowing across unprotected body parts. This situation can also be reduced by keeping bare skin covered with hats, scarves, and gloves. It is important to keep exposure to a minimum, ESPECIALLY in a windy situation. Convection heat loss can reduce body heat the fastest. Wet clothing will accelerate this process, making staying dry even more important.

Other Concerns

Tent Placement.

Whenever possible, place your tent in a location that will catch the sunrise in the morning. This will aid in melting off any ice and evaporating any frost or dew that may have formed during the night. This will also warm your tent as you awaken in the morning.Cold air sinks. Try to place your campsite on slightly higher ground than the rest of your surroundings. Try to choose a protected site if it is snowing or the wind is blowing.

Water Consumption In Cold Weather.

Dehydration can seriously impair the body's ability to produce heat. Drink fluids as often as possible during the day and keep a water bottle or canteen with you at night.

Cooking In Cold Weather.

Cooking in cold weather will take about twice as long as normal. Always use a lid on any pots that you are cooking in. This will help to hold in the heat and decrease the overall heating time. Make sure you start hot cleaning water before you start cooking. The pots and utensils must still be cleaned. Try to keep your menu to good one-pot meals. Things like stews, chili, and hot beans stick to your ribs, lessen the cleaning time, and provide good sources of energy and fuel for your internal furnace. A good high-calorie snack before bedtime will also keep you warm all night. Stay away from an overabundance of sugar, cheese is a good high-calorie bedtime snack.

Sleeping Tip No 1.

Do not sleep with your mouth and nose in your sleeping bag. The moisture of your breath will condense in the bag, and cause it to become wet and ineffective as an insulator.

Buddy System.

Buddies can help each other pack for a trek, look after one another in the woods, and watch for symptoms of frostbite, hypothermia, and exhaustion.

Checklist.

Make a checklist of everything you need before you start to pack. Then check each item off as you pack it. This way you will not forget anything.

Keeping Warm

Keeping warm is the most important part of cold weather camping. Use the C-O-L-D method to assure staying warm.

- C - Clean

Since insulation is only effective when heat is trapped by dead air spaces, keep your insulating layers clean and fluffy. Dirt, grime, and perspiration can mat down those air spaces and reduce the warmth of a garment.

- O - Overheating

Avoid overheating by adjusting the layers of your clothing to meet the outside temperature and the exertions of your activities. Excessive sweating can dampen your garments and cause chilling later on.

- L - Loose Layers

A steady flow of warm blood is essential to keep all parts of your body heated. Wear several loosely fitting layers of clothing and footgear that will allow maximum insulation without impeding your circulation.

- D - Dry

Damp clothing and skin can cause your body to cool quickly, possibly leading to frostbite and hypothermia. Keep dry by avoiding cotton clothes that absorb moisture. Always brush away snow that is on your clothes before you enter a heated area. Keep the clothing around your neck loosened so that body heat and moisture can escape instead of soaking several layers of clothing.

Clothing.

- Footwear.

As with other clothing, the layer system is also the answer for foot- wear. Start with a pair of silk, nylon, or thin wool socks next to your skin. Then layer on several pairs of heavier wool socks. When and if your feet become damp, change into another pair of dry socks at the first opportunity. Rubber overboots will protect the feet from water and will allow more comfortable shoes to be worn within.

- Mittens and Gloves.

Mittens allow your fingers to be in direct contact with each other. They will keep your hands warmer than regular gloves that cover each finger. Select mittens that are filled with foam insulation, or pull on wool gloves and cover them with a nylon overmitt. Long cuffs will keep wind and snow from getting in.

- Headgear.

The stocking hat is the warmest thing you can cover your head with in cold weather. Get one that is large enough to pull down over your ears. Also ski masks are great in the winter and can help in keeping your neck and face warm as well. Noses and ears can be very easily frostbitten, so a scarf can be an invaluable item to have.

- Parka and/or Overcoat.

Your coat or parka is the most important piece of your winter clothing. It needs to be large enough to fit over extra clothing without cutting off blood flow, and allowing ventilation to keep moisture away from your body. A large permanently attached hood will prevent heat loss around your head and neck.

- Sleepwear.

Never should you sleep in the same clothes that you have worn all day. They are damp and will cause you to chill. This could cause frostbite and hypothermia. It is advised that you bring a thick pair of sweats and thermal underwear to sleep in. Keep the thermals and sweats for sleeping in only. Do not wear them during the day, this will keep them the driest. Also be sure to have a couple of layers of wool or heavy thick cotton socks on as well. Always sleep with a stocking hat on your head. Your sleeping bag needs to be a winter rated bag. Typically rated down to 15 degrees and stuffed with 5 pounds of Holofil, Fibrefil, or other polyester ticking. It is also a very good idea to have some kind of sleeping mat to use in the winter. The mat can be a

£50 Thermal Rest or a piece of high density rubber foam at least one inch thick. In cold weather camping you never want to sleep on an air mattress or off the ground in a cot. The air under you will cool you off in no time and this would create a threatening situation. If you don't have a sleeping mat, bring a spare wool or natural fibre blanket to use as a ground pad under your sleeping bag. The sleeping mat is worth its weight in gold.

Have fun!

Every year, tens of thousands of youngsters will go winter camping. Although the threat of danger is always present in a winter camp, planning and knowledge can overcome this. It is very important that the Scouts come prepared. If a Scout feels that at this time winter camping is not for him, then he should not go. There is always next year and the year after and so on. If a Scout comes to camp and I do not feel that he is prepared, I will have to ask him to stay behind. Make sure you are ready, and most of all, SAFE.