

Winter Outside Camping Equipment List (and Discussion)

This list summarizes the recommended equipment needed by Arlington Scouts and Leaders for a typical Winter Campout in the mid-Atlantic region, including mountain camping in the Shenandoahs or similar (where it is usually much colder than Arlington). Note that during the daytime hours, cold temperatures can be compensated for with higher personal activity levels, and/or fires. The primary concern during cold weather camping is at night, when personal activity levels are very low, and a fire (if any) won't do much good unless you're sitting right next to it and keeping it going all night long - which is highly unlikely if you're in a tent. This is why there is a greater focus on sleeping gear. That's important - pay attention.

Note that this list is overkill for a weekend. The primary reason why excessive gear is specified is because Arlington Scouts and Leaders do not, in general, spend a lot of time outdoors in the wintertime, and therefore they are not used to the cold. Scouts who live in western Maryland, West Virginia, or further north, for example, would laugh at this list - so would you if you spent a lot of time outdoors and it was 20 degrees colder here all the time. Winter campouts also tend to be clothing intensive, especially if the weather conditions are less than ideal - for example, very cold rain and/or wet snow - in which case you can expect to have to change clothing multiple times through the weekend.

Roughly, this list would be good for Scouts camping out in tents down to 0 - 5 degrees with no wind, and down to 10 - 15 degrees with wind. For Scouts doing a survival campout (no tents, homemade shelters), this would be good down to about 15 - 20 degrees with no wind, and to 25 degrees with wind.

As always, Scouts should check off the items as they pack them.

Sleeping Gear - Listed first because it's the most important, and doesn't change whether camping for one, two, or three nights (Put Your Name On Everything!):

_____ A sleeping bag, rated to 20 degrees if less than 2 years old, rated to 5 degrees if older (sleeping bags lose insulating quality as they get older, and - very important! - lose insulating quality each day you spend on a winter campout because of absorbed moisture). If you are going on a really cold campout, put your winter sleeping bag inside your summer sleeping bag, or add a thick fleece liner to your sleeping bag. If you don't have a second sleeping bag or a fleece liner, either borrow one or go buy a cheap one at a local sports store (like Dick's or Sports Authority).

_____ A foam pad. Many winter campers use two foam pads, or a foam pad on top of a Thermarest. It is very important to insulate yourself from the

- _____ ground! Don't use "short" (backpacking) foam pads - your feet will freeze.
- _____ A small pillow, with synthetic fill.
- _____ A "night cap" - a loose-fitting pullover fleece hat to wear in the sleeping bag.
- _____ In extreme conditions, add a loose-fitting face mask and loose-fitting fleece gloves or mittens.
- _____ "Sleeping clothes" - Middle or heavyweight thermal underwear; fleece or some other similar synthetic material.
- _____ Fresh polypro socks and either very thick (but loose-fitting) socks or fleece or down insulated "booties" or slippers.
- _____ Large cloth sack for your boots.
- _____ Large socks or a medium cloth sack for your canteens.

Always remember, you must remove ALL the clothing you were wearing during the day, including your underwear and socks, before you go to bed, because you sweated into them (and "sweat is wet" - even if they don't feel wet - and wet will mean very cold in the middle of the night). This is a real reach for novice winter campers, who instead want to dress themselves in everything they own - and then wonder why they later wake up in the middle of the night, freezing cold. It's because the clothes they had on were wet with sweat.

Note that it is not necessary or a good idea to get re-dressed in all your night clothes when you first go to bed. It is typical to be very warm - even too warm - when you first get into your night clothes and then into your sleeping bag; again this is because you are still being active. Leave what you can, off - like your hat or gloves. Then, if you wake up hours later and you're cold, put the additional stuff on. Remember, your extra stuff has to be easy to find in the dark!

[Special Note: Troop 111 Scouts are not allowed to winter-camp without formal shelter (a tent) unless they are practicing a supervised survival campout. "Supervised" means there are a minimum of two adults out there with you - not in a nearby cabin - also doing a shelterless overnight. Note that an emergency shelter does NOT qualify as a tent substitute.]

On tents, note that a tight, low profile (height) tent is at least 10 degrees warmer than a typical A-frame or high peaked dome tent. Therefore, if you have a choice, a smaller tent is almost always a better (warmer) choice than a larger tent.

Regardless of what kind of tent you use, you should always crack the top vents at each end - otherwise, your breath will condense and freeze on the inside of the tent, then melt when the tent warms up (or where you're leaning against the side), and eventually everything inside will get wet from your own condensate. This is another typical mistake made by novice winter campers. You need some fresh air circulating through your tent even if it's really windy or really cold outside. And

never, ever, ever have a flame source inside a sealed-up tent; it will eventually consume the oxygen. People die every winter from this mistake.

Other Important Hints:

A) Be sure you have brand-new batteries in your flashlight. Used batteries may work fine in your bedroom, where it's 70 degrees - but those same batteries will be dead in half an hour at 20 degrees. Note that "Ultimate Lithium" batteries are by far the best for extremely cold conditions; regular alkaline batteries will suffice down to about 35 degrees for 2 nights, or to 25 degrees for a single night.

B) Don't go to bed already half-frozen. If you're really cold, take a brisk walk for 10 minutes just before bed. This does a far better job than a fire to warm you up.

C) Eat a high-calorie food just before going to bed on a cold night (cheese or a candy bar are good). This will give your body the energy it needs to stay warm.

D) Do not leave your boots or canteens outside - they will all be ice-blocks the following morning. Knock all the snow and mud off your boots (outside your tent, please) and put them in a cloth sack, then place the sack in the very bottom of your sleeping bag. In a similar manner, place your canteens in another sack (or in very large socks) and put them also inside your sleeping bag. You will be much happier the next morning if you do so.

E) Finally, always go to the bathroom before you go to bed (even if you think you don't have to). The last thing anyone wants to do is have to get up in the middle of a bitterly cold night, get dressed, exit their tent, and go hit a tree. If you wake him up, your tentmate will not be happy either. This is yet another typical novice winter camper mistake.

Daytime Wear (Put Your Name On Everything!):

It is difficult to be specific about daytime wear for winter camping, because what you need is very dependent on what you are doing, and the weather conditions. The greater your activity level, the less clothing you need. For example, if you're backpacking up the side of a mountain, and you're sheltered from the wind, you may be perfectly comfortable while hiking with just a long-sleeve shirt, lightweight pants, and a light headband. You may need only a little more if you're running around a Klondike Derby, hauling a sled between stations, or playing football, or sledding, or having a snowball fight. But any activity that requires a lot of standing around, you're going to feel the cold. And if it's really cold or really windy outside, and you're standing around for hours, you'll really going to feel the cold.

So how can you handle different conditions and different activity levels? By layering, wearing proper footwear, headwear, and gloves, and using windproof shells when needed. Layering means you take stuff off BEFORE you start to overheat, and put it back on when you get cold. Typical layers for a cold weather

campout would be synthetic underwear, synthetic thermal underwear, a mixed synthetic/cotton blend shirt, a heavy fleece top and snow pants or wool army pants, and medium weight jacket, and a wind-proof/waterproof shell over that (the longer the better).

One of the most important things to learn is remove stuff to the point of being cold BEFORE you start a strenuous activity - if you wait til you start to sweat, you waited WAY too long. Staying DRY is the key to staying warm, and if you're even a little sweaty, you're not dry anymore. Carrying a small daypack is very helpful if you know you're going to be varying your activity level all day long, so you'll have a place to put stuff. Proper footwear means insulated boots (like Sorrells). Very few Scouts (or leaders) own insulated boots, because they are rather expensive. So, they try to compensate with hiking boots and socks. This can work OK, but requires proper layering (polypro, synthetic blend, thick insulated), but it is difficult to have adequate bulk and still fit easily into your boots - and if your feet and especially your toes are tight in the boots, your blood flow will be constricted, and your feet will get very cold anyway. So you are better off wearing layers of socks and oversize boots if you can't buy or borrow insulated boots. Note that in snowy conditions, boots can be "sealed" to pants with gaiters or duct tape (however, the duct tape has to be warm to work well for this purpose); alternately, but not as effectively, heavy duty rubber bands can hold pants fairly tightly around boots.

Proper headwear means appropriate for the conditions. In some cases, that can be just a headband, in others a pullover hat, then add a facemask or a scarf, then add a hood or balaclava, and in the worst condition add a pair of wrap-around sunglasses or goggles.

Gloves are another critical item, equal to boots - if your hands and feet are cold, you will be miserable even if the rest of you is warm. There are two common mistakes here: Wearing gloves that are too tight, or wearing gloves that are wet. No matter how good your gloves, if they're too tight or if they're wet, your hands will get very cold. So you should always buy gloves that are larger than your hand, and if you are doing activities where you can expect to get your gloves wet, either cover them with waterproof gloves (even something like Playtex gloves) or bring additional pairs of gloves in your daypack. On warmth, wearing thin liner gloves inside your regular gloves is the best "regular" combination - usually much better than just wearing thicker gloves. Use of liner gloves inside mittens is the best combination, but doesn't work well if you need to use your hands for any work.

Finally, stopping the wind is the second most important factor in staying warm (again, staying dry is the most important factor). There are several "windstopper" fabrics used to create winter wear, but they tend to be rather expensive. Most winter coats and pants are at least wind resistant. Use of an oversize nylon shell (a

“windbreaker”, top and bottom) over your clothes is a very effective and inexpensive means for stopping the wind. In worse-case scenarios, use of an oversize vinyl rainsuit (for example, those big yellow “rubber” rainsuits) will completely stop the wind - and if you have proper layers underneath, can protect you to well below zero temperatures even when your activity level is low. This is what many hunters wear when they have to sit still all day long in very cold conditions. Some skiers wear similar outfits in extreme wind-chill conditions. However, it is very easy to start sweating in such an outfit if your activity level increases, so caution is required.

Finally, remember that if your hands and feet are cold, the first place to add clothing is your HEAD, not to your hands and feet. So a better hat and a better scarf. If you’re still cold, add more. In extreme conditions, you can use pieces of closed cell insulation under your hat or wrapped around your torso (body) between two T-Shirts, and even as a layer inside your boots. And as noted above, move around, eat high calorie foods, and if possible drink a hot drink.

The list below INCLUDES what you need to wear when we leave. You should be wearing (or have in your daypack) a full set of winter clothing (including a good hat and a good pair of gloves) and be wearing BOOTS (not sneakers) when we leave. You need to avoid sweating while travelling (so dress appropriately), but you also need to be prepared to step from your warm vehicle straight into winter conditions.

In many cases, 2 - 3 of each item is specified. The number should correspond to the number of days you will stay in the elements. You don’t need all this for a single overnight - but you would for three nights. As noted above, it is most important to stay dry. While it is possible to dry sweaty clothes during a winter campout (if the weather is cooperative), it is safer when possible to just have fresh, dry clothes for each day.

Remember, this list is overkill, and is specifically designed for the most extreme conditions. You can make rational deductions - but make sure they ARE rational. You can always go get something you need if it's in your backpack or duffel bag - but not if it's back home in your closet. The only disadvantages to having lots of stuff is the increased weight and bulk - that should not be a limiting factor for typical Winter Campouts, which are usually car-based. If the Troop is doing a wintertime backpacking trip, we would have a specialized shakedown beforehand to make sure everyone was properly equipped at the lowest reasonable weight and bulk. Again, that is NOT the case for most of our Winter campouts. Also remember, mark everything with your name or initials. We end up with more “orphan” gear after our winter events than with all our other events combined. There’s a lesson there, yes?

- _____ A small, lightweight daypack - don't carry an oversized or heavy daypack filled with junk
- _____ Insulated boots, or good quality, oversize hiking boots - if you know you will be in wet, muddy conditions, a second pair of boots or rubber overboots are needed. If your boots get wet, your feet will get wet and very cold, and frostbite then becomes a real danger
- _____ 2 - 3 sets of light to medium weight synthetic thermal underwear
- _____ 2 - 3 pairs of polypro socks
- _____ 2 - 3 pairs of thick wool or wool blend socks
- _____ 1 pair of insulated snowpants, or 2 pair of thick pants (like German Army wool pants). Avoid cotton pants (like blue jeans).
- _____ 2 - 3 synthetic T-Shirts, preferably long sleeve
- _____ 2 - 3 long-sleeve synthetic (polyester or nylon) or synthetic blend T-Shirts
- _____ 2 - 3 pair of underwear (preferably synthetic)
- _____ A medium weight fleece
- _____ A heavy weight fleece
- _____ A good winter coat, slightly oversize preferred, preferably wind and rain resistant (should not be too thick).
- _____ A lightweight headband
- _____ A heavyweight or windstopper headband
- _____ A pullover hat, preferably thick fleece
- _____ If your winter coat doesn't have a hood, a balaclava or equivalent head-gear (preferably synthetic)
- _____ A facemask or scarf (preferably synthetic or fleece)
- _____ Goggles or "wraparound" sunglasses with clear or lightly tinted lenses
- _____ An oversize nylon shell or rubber rainsuit. If wet weather is expected, a rainsuit is mandatory.
- _____ 2 pair of liner gloves
- _____ 2 pair of oversize, insulated gloves or mittens
- _____ A pair of waterproof shell gloves/mittens, or an oversize pair of latex gloves
- _____ A belt
- _____ A small towel
- _____ A very large "dirty clothes" bag, preferably cloth.

Eating Gear (Put Your Name On Everything!):

- _____ A medium sized, insulated (double wall if possible) bowl, preferably plastic, with name plainly marked.
- _____ A plastic knife, fork and spoon kit (avoid metal - it steals heat).
- _____ A medium sized, insulated (double wall if possible) cup.
- _____ 2 1-liter canteens, filled with water (winter weather is extremely dehydrating; Note that you need to keep your water bottle in an inside pocket to prevent it from freezing during the day, and inside your sleeping bag at night). If doing

strenuous activities far from a water supply, bring 3 or 4 canteens, as warranted. Note that it is common for the hoses on Camelbaks to freeze solid on winter campouts; for this reason, they are **NOT RECOMMENDED**.

Ancillary Equipment (Put Your Name On Everything!):

- _____ **A flashlight (headlamp with AAA batteries, or a regular 2 C-cell flashlight) with fresh batteries**
- _____ **A toothbrush**
- _____ **A pair of dark, UV-opaque Sunglasses (especially if you're camping in snow)**

Optional Equipment (Put Your Name On Everything!):

- _____ **If the Troop is cabin-camping nearby, a pair of sneakers for use inside the cabin**
- _____ **A small folding lock-blade knife**
- _____ **Chemical Handwarmer Packs (4 for each day) - Good if you still get cold hands despite proper clothing**

Scout Uniform? - Bring your uniform only if specifically instructed to do so. Under NO circumstances should a Scout plan to wear his uniform during winter outdoor campouts. It is needed only for attending indoor (heated) Church services.

Other General Hints for the Troop:

- A) If it's windy, set up out of the wind (low lying area, or behind a hill). If unable to do so, tent close to a tree-line or set up a line of wind-blocking tarps in a "lean-to" arrangement, with the campsite on its leeward side - it makes a huge difference.**
- B) If it's very still (no wind at all), avoid depressions - the cold will collect there. There can be a 10 degree difference between an adjacent rise and depression.**
- C) Protect water jugs from freezing! (inside a car is NOT sufficient!) Wrap full jugs in thick blankets. In extreme conditions, place an operating handwarmer in with them. Water jugs and canteens can also be buried UPSIDE DOWN in snow (ice forms at the top), but the water will be 32 degrees the next morning (tough to drink).**

Dr. Bob, ASM-111 (2013 Update of 2004 Version)