

Beginning Cold Weather Camping

Training Summary

For many troops and crews, the first chilly days of winter mark the arrival of camping doldrums for the outdoor program. Units otherwise skilled in camping during the fair months of the year feel unprepared to handle the more challenging camping situations of winter. The following training along with the publication, *Okpik: Cold –Weather Camping* (available at your local Scout Service Center), provides both leadership and practical approaches for leaders wishing to bolster their camping program to a year–round one. Beyond this training are regional and National High Adventure Bases which offer great opportunities to expand your cold weather skills.

Learning Objectives: At the end of this session the participant will be able to:

- Develop a plan to build winter leadership skills among adult leaders and older youth leaders in the unit.
- Develop a plan to build the practical skills required for safe and fun winter camping.
- Learn and communicate the differences between warm and cold weather clothing, the primary personal defense against the cold.
- Commit to memory the Winter Food Pyramid for proper nutrition and hydration.

Training Formats

An introductory one- person skit sets the stage for the consideration of several aspects of winter camping. The group discussion section that follows the skit is best handled with a discussion leader utilizing an easel pad or Power Point. Handouts listing the major discussion topics will help the participants gather information which will be useful in their planning process.

Required Materials

Skit: Garish costume for Mr. or Mrs. Tenderfoot Parent.

NOTE: Be careful that Mr. or Mrs. Tenderfoot Parent is not gender identified. In particular, do not suggest that it is always mommies or always daddies who have concerns about winter camping.

Poster size prop held by Mr. or Mrs. Tenderfoot Parent that says:

Permission Slip

First Ever Troop ____ Winter Survival Outing

[the script can be part of this prop for Mr. or Mrs. Tenderfoot Parent to read]

Easel pad and markers or Power Point Equipment

Introduction

To a Scout, the troop's outdoor program is a great adventure. The year-round outdoor program keeps the Scouts involved in advancement as well as skill and confidence building. The arrival of cold weather, however, presents additional challenges to Scouts and leaders alike. If your troop is looking to start cold weather camping, this training is for you. We will be discussing a number of practical leadership approaches that will help you develop a plan to introduce cold weather camping to your Scouts. To be sure, it will take more planning to assure safety and provide a meaningful program. No doubt, you and your Scouts already have experienced camping in mild conditions (above 50 °F). But for most families, the thought of spending an extended time in the outdoors in winter is a foreign concept. As we begin to bridge the gap in knowing how to prepare our Scouts for the rigors and joys of being outdoors in winter, let's catch up with Mr. or Mrs. Tenderfoot Parent who has questions regarding the troop's first winter outing. See if you can understand the concerns.

Skit: Mr. or Mrs. Tenderfoot Parent's Dilemma (skit should take 5 minutes)

Mr. or Mrs. Tenderfoot Parent enters the room trying to get the attention of the Scoutmaster who has just exited in a hurry, perhaps trying to avoid the person whose voice he hears calling. In spite of urgent calls to the Scoutmaster, he/she ends up alone in front of the audience, obviously concerned and frustrated. In

his/her hand is a Permission Slip (oversized for purposes of visualization by the audience). It says: Permission Slip – First ever Troop 13 Winter Outing.

Mr. / Mrs. Tenderfoot Parent: “Mr. Scoutmaster, Mr. Scoutmaster! It seems I can never catch up with him. I have so many questions about this permission slip, the first ever Troop 13 winter outing. Tommy wants to go badly. He’s nagging and says everyone else is going, but I have some concerns. It’s not so much the cost ‘cause Tommy has enough money in his Troop account. (Proudly) After all he sold 15 boxcar loads of popcorn.

It says here (pointing to the permission slip) that they are flying to Alaska and hiking the Chilkoot Trail. What will I need to pack for him? We got him a new sleeping bag for summer camp. If he wears his high-top Nike’s will they be warm enough? And will they fit into snowshoes? Maybe he shouldn’t take his new coat, it might get torn. I have so many questions... seems like I can never catch up with the Scoutmaster.

Tommy really wants to go. It would break his heart not to go with the other Scouts. But, you know, it’s this statement (again pointing to the permission slip) about winter survival that really has me concerned. I really need to talk to that Scoutmaster.” (Mr. or Mrs. Tenderfoot Parent exits exasperated)

Group Debriefing of the Skit

Ask the group to discuss the issues highlighted in the skit. While the scene was “over the top” it does point out several aspects of a cold weather outing that should be considered. Ask the group, “What was going on in this skit?” The following list should be among their responses and questions: (gather group’s summary of the main points using an easel pad and markers)

- The Scout is anticipating a great adventure and wants to go with everyone else.
- Scope of the first outing is too aggressive.
- Age appropriate?
- Incomplete information.
- Most families don’t have adequate cold weather gear or knowledge of how to adapt.
- Appropriate clothing and the family budget.
- What preparation has the troop had?
- What are the qualifications of the adults leading the outing?
- Is the leader avoiding parents’ questions?
- Winter is often a harsh environment. Winter survival is scary for parents.

If we look back historically, we find that many people learned to deal with their necessity to be outdoors. Outside work was common and even children had chores that required them to be outdoors in all sorts of weather. They learned first-hand how to handle extended periods outside in the cold.

Today, a large portion of the population only endures brief excursions outside from one heated environment to another, such as school, home, vehicle, or store. In fact, today we can find many more reasons to stay indoors. (Discuss some of these reasons as a group) Knowing how to prepare for longer periods of time in cold environments is lost. To many parents, sleeping in an unheated tent in winter or a thermal shelter such as a quinzee is cause for alarm.

So, with today’s norms as our backdrop, what approaches can we take to introduce cold weather camping to our Scouts?

Winter Leadership Skills

A. Safe Outing

The perception of adventure and fun are the main reasons any Scout will participate in any high adventure activity such as cold weather camping. As leaders, we must recognize the seriousness of the activity. Cold weather, particularly in the heart of winter, presents us with an unforgiving environment. We will discover

that typical tasks such as setting up a tent or fly cannot be done as fast as in the summer. Our comfort is continually challenged. Nevertheless, as a leader we realize that a safe trip is infinitely more important than any other trip goal. It can be helpful to assess the leaders' and Scouts' capabilities and then set limits for weather extremes. Communicate these limits to your Scouts and parents in order to build confidence. If they exceed your training or the group's capabilities, you must be prepared to cancel or terminate the event. It is much better to thrive on a cold weather outing than to "survive".

In addition to the environmental concerns that must be understood and communicated to the Scouts, it is important to establish a positive attitude before and during the event. Frustration and fatigue can begin to take a toll when conditions are challenging. A cheerful can-do attitude is always helpful to encourage the group. During the preparation sessions, be sure to develop positive verbal and behavioral norms.

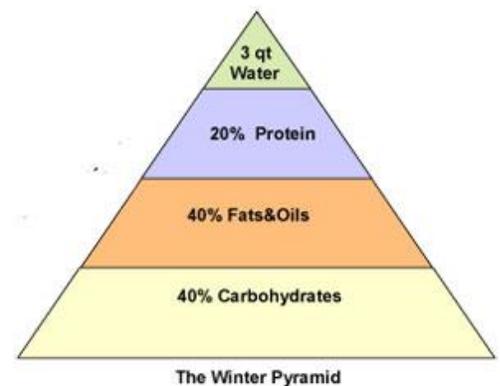
B. Leader Preparation

Physical fitness preparation is essential in order to handle the added stresses on your body in cold weather. Leaders of any age may wish to discuss a fitness regime with their doctor. It is often useful to slowly acclimate yourself to the cold and vigorous activity. Leader fitness provides a great role model to your Scouts. Prior to a first cold weather campout, leaders should study winter camping techniques, cold weather physiology and proper nutrition. There are many good resources available in print and on-line. A good first book is the BSA publication, *Okpik: Cold Weather Camping*. Additionally, in many regions there are winter camping courses taught by experienced winter campers both inside and outside of Scouting. Take advantage of all of these resources but keep in mind that the Scout Leader's goal is to lead youth in winter activities that uphold the aims and methods of Scouting. You may find local Scouters in your council who would be willing to help you with cold weather camping.

As you learn various methods, try things out yourself at home or at a local park. Pitching a tent in your own backyard and sleeping out is a great way to test out your sleeping system. If you are getting cold make modifications, learning from the problems you face. Experience first-hand getting up in the morning and preparing a nutritious breakfast. In this way, you can test how your equipment works; you can analyze problem areas and make improvements. Selection of a winter campsite which offers protection from the wind is a priority.

Proper Nutrition

- Food = fuel
- Breakfast should give enough fat to satisfy the appetite.
- Lunch is abundant in high carbohydrate energy.
- Dinner includes the highest amount of protein.
- Nutritious high caloric snacks at any time of day
- Check out www.choosemyplate.gov
- *Okpik: Cold Weather Camping* book p.38
- BSA Handbook, 13th Edition, p. 259



Two-deep leadership may never be more important than on a winter campout. A more severe, unforgiving environment requires leaders to be more alert and watchful and experienced. Leaders may want to bring extra clothing to use if a Scout gets wet or cold. Leaders will want to be vigilant to detect early stages of hypothermia, frost nip or dehydration.

Leaders should assure that the cold weather campout has program activities throughout the day and perhaps even a night hike or night snowshoe hike to provide learning opportunities and physical activity to keep the Scouts warm. Use of a buddy system, where the buddies check each other and help remove snow from the other's clothes, gives the leaders another layer of watchfulness. Keeping dry and avoiding prolonged exposure to the wind are major safety issues that need attention.

Practical Skills

A. Age and Skill Appropriate Program

Most troops beginning a winter outdoor program will have Scouts of various ages and skill levels. Cabin campouts with plenty of outdoor activity allows younger Scouts to become familiar with the fundamentals of cold weather camping. Outdoor games and cooking as well as instruction on setting up a proper winter campsite would be good introductory topics. Older Scouts could camp outside with proper preparation and provide the younger Scouts with real life demonstrations of the fundamentals. In case of severe weather, the cabin will be a fallback position for the troop. Younger Scouts will see the adventure awaiting them as they build skills. Older Scouts build confidence in their newly learned skills while providing role models and leadership to the troop. Clearly, moving beyond cabin camping requires an enthusiastic group of boy leaders to model and teach skills to the younger boys.

B. Practice at Home

As you begin to introduce winter camping to your unit, you may find that your troop meeting does not offer enough time to develop confidence and skills among the Scouts who are willing to try cold weather camping. You can use the weeks prior to your campout to build the anticipation for adventure. In fact, much of the confidence building can be done at home or in a few hours at a local park. After some detailed instruction at a troop meeting, have the Scouts (as buddies) sleep out in a tent in their own backyard, unheated garage or outbuilding, to test out their sleeping system. Ask the Scouts to report back on their test and tell what changes they would recommend.

On a weekend, go to a park and practice setting up tents and cooking using the troop's stoves. It is very important to know how your equipment will function in the cold. For instance, some stoves may not work properly in cold weather. If you find that your stoves will not function well in cold temperatures you must replace them with models that do. Practice cooking high calorie meals in the cold or better yet, take food that has been prepared at home and needs only warming. Meal preparation is a good opportunity to re-emphasize the greater nutritional requirements for cold weather. Likewise, drinking more water is important to combat dehydration in a winter environment. If the Scouts understand the importance of eating a proper winter diet and drinking adequate amounts of water, the more likely they will be to eat and drink even though they may not be hungry or thirsty.

Often, beginning cold weather campouts require more equipment than Scouts can carry in their backpacks. Practice using toboggans, Klondike or plastic sleds to transport the equipment to a campsite. Interestingly, this technique can even be used when there is no snow on the ground to transport gear. Learn how to pack the sled properly and how to use teamwork to haul the gear.

Protecting the troop's equipment is a major consideration on a cold weather campout. It is amazing how much troop and personal equipment is lost if it falls into the snow. In some regions of the country a cold weather campout can suffer from mud more than from snow. You may have to think of new ways to protect tents and other valuable troop assets from damage. Scouts will need to exercise forethought and follow the agreed-upon routine for dealing with mud.

Build interest and excitement in the cold weather outing early in the season. Perhaps the Klondike sled needs refurbishing or needs new tow ropes spliced. Some troops make gear for their winter outings such as hats, mittens or even snowshoes – there are easy-to-use patterns in the Okpik book. Sewing machines could be brought to a few troop meetings and used by the Scouts. When a Scout makes something, he wants to try it out.

The older Scouts may be especially keen (and fit enough) to take on the challenge of a winter campout. For troops who are transitioning to more serious cold weather camping, it is helpful to work primarily with the older Scouts or an ad hoc Venture patrol. Discuss this option with your troop committee or district or council committee to seek input on how to expand your outdoor program. If you want to build the troop's capability,

a gradual or even long-term approach may be needed. The committee will likely need to support more training for the leaders or senior Scouts to make this program available to the troop. The Klondike derby is a great way to engage the Scouts in cold weather skill building.

C. Communication

In the planning and execution stages of a cold weather campout you will need good communication to parents and Scouts. If you are beginning cold weather camping, parents will have questions, spoken or unspoken, about their child's safety and leader qualifications. It's vital to show them how the troop is preparing for the outing.

Parents will also want to know what they will need to provide and how they can help. This is wonderful. Involving them will increase your chances of success with the youth. Some parents may have a large yard that could be used for outdoor practice sessions. Invite parents to observe the training as they pick up their Scout. Tell everyone the plan for the campout, and the limits that the Scouts are preparing for. Explain to the parents and Scouts that a detailed checklist will be given to the Scouts and a thorough inspection of the gear will be done before they are allowed to go on a winter campout.

Scouts will need to know and practice the winter procedures you have set up. These include the procedure for mud, use of cold weather buddies and expectations for positive, helpful attitudes. Scouts should tell a buddy or adult leader if they are cold and need some help. Simply practice as a group saying, "Mr. (leader), I'm cold. I need help." can break down the barrier that could lead to a cold injury or emergency. Once a Scout understands that it's OK to say those words and knows the leader will respond in a helpful and empathetic way, then he will be more likely to let you know if he is uncomfortable.

The proper choice of clothing for a winter campout provides the first layer of defense against the unrelenting cold and wind. Communicate to the Scouts the difference between summer and winter clothing and the need to avoid cotton garments.

Warm vs. Cold Weather Clothing.1

Summer clothes

Let heat escape
Keep cool
Let moisture escape
Loosely woven fabric
Cotton absorbs moisture
and promotes evaporation

Winter clothes

Keep heat close to the body
Stay warm and dry
Allow moisture to escape when active
Retain 60% moisture on the skin
need to layer & ventilate
wool and fleece work well

Cotton is excellent for summer. When it is wet it cools the skin due to evaporation which is a cooling process. Cotton does not change its character in winter. It still cools you in the winter. Leave your cotton garments at home when the temperature is 50 degrees or less. Instead look at wools [merino and cashmere are great because they don't itch], fleece, down, polypropylene, other synthetics and silk. Winter camping clothing can be more expensive than cotton clothing but it does not need to be too expensive and can be important for comfort and safety. Winter camping clothing should probably be reserved for actual camping and other winter outdoor activities to limit the number needed. For example, polypropylene undergarments should probably not routinely be worn daily to indoor school classes.

Thickness = warmth. It is the dead air spaces in the material which keeps you warm. Goose down, while very expensive is the lightest and best insulator because of its high loft, lightness and huge surface area. The dead air space in prime goose down is enormous [800 primaloft is great]. Get down wet, though, and the dead air spaces collapse, resulting in loss of insulation value. It's the equivalent of wearing cotton. Wool will insulate even if it gets wet because the material does not collapse within itself. Fleece works well due to its thickness

and the fibers do not capture water. Fleece will dry quickly if wetted. The biggest dangers to fleece are fire and heat. Fleece melts.

Nylons are good as the outerwear layer. If a nylon vest is worn next to the inner body all the moisture will be trapped and the inner clothes become drenched. Use a nylon vest for outerwear only. A wool or fleece vest works well next to the inner body because moisture is wicked from the body and moves to the outer layers. Waterproof, breathe-able fabrics work well at temperatures above freezing. Below these temperatures these fabrics begin to shut down because the moisture can cool and condense inside the fabric. If temperatures are cold enough an ice can actually form inside the garment.

Conclusion

A year-round outdoor program is of great benefit for all troops. Cold weather camping, however, presents some of the most challenging conditions, requiring preparation similar to other high adventure outings. This supplemental training was designed for leaders who want to expand their outdoor program to include cold weather camping. While you should consult other resources on winter techniques, this training has highlighted the leadership and practical approaches to consider when your troop starts to plan for cold weather camping.

Develop a plan to build the skills necessary to lead a cold weather outing. Once the leadership skills are in place, show the Scouts the adventure of winter camping safely, a bit at a time. Opportunities to learn winter techniques and practice skills in small steps, even at home, will build confidence. Parents will appreciate the approach of added training prior to a winter campout. Scouts discover they can meet the challenge to thrive in the cold. You're in for a great adventure!

Reflections on an Actual 6-Adult Cold Weather Campout:

Weather conditions: 10 degrees F down to -16 degrees F

Friday night: clear skies, 0 degrees F. About 2 feet of snow and a full moon.

Saturday: -16 degrees F, clear skies.

Sunday: 10 degrees F, 8 inches new snow.

WOW Factors:

- Small items disappear when dropped in snow.
- All food products containing water freeze solidly.
- Check your camera's temperature specs [LED's Freeze!]

PREPARATION at HOME

- Checklist of what each person is carrying.
- Find out the winter requirements of the area [i.e. snowshoes or skis were required in the backcountry and trails but crampons were not allowed for hiking]
- Test the equipment at home in the coldest possible conditions [place stove and fuel in freezer for over 2 hours and then try to light the stove].
- Need to find better vapor barrier liner bags for the feet. Thin grocery store plastic bags did not hold up.
- Snowshoes – try them out several times before hitting the trail. Take extra straps in case binding fails. Look at points where snowshoe might fail and bring extra parts.
- One multi-tool was useful for minor repairs. A “possible kit” with other small tools and repair items should be carried for the group.
- Maximum preparation and minimum operation worked best – pre-cut and separate the breads [use wax paper to separate since wax paper is edible and burnable]; cut cheese and sausage into bite size chunks.
- Pre-pack clothes as wearing units in zip lock bags or other waterproof bags.
- Clothes you'll be changing into after the ride to the campsite should be immediately available.

- Test boots in coldest possible weather. If using pack-boots, bring extra liners.

GEAR

- White gas 1-mantle lantern worked well
- Some stoves took a long time to boil the amount of water required for the group and they were noisy.
- One stove caught on fire due to a leaking gas connection. The generator had to be well pre-heated to start this stove at cold temperatures.
- Have a back-up stove.
- Fire ribbon was pliable at -16 degrees F.
- Wet metal spoons and forks froze onto lips, tongue while eating. Very uncomfortable. USE PLASTIC
- Bring a pocket knife with a wooden handle.
- Metal pots and dutch ovens [anything that can go into a wood fire] worked great.
- Ax and saw – NO metal handles
- Removal of metal tent pegs from the frozen ice/ground was a big problem – look into use of dead-men [logs or snow-bags].
- Plastic sleds worked great to transport gear. Wrap the gear in a tarp and strap or tie the gear package into the sled.
- Insulated bottles froze at these temperatures.
- Closed cell foam pads for sitting and kneeling keeps your clothes dry and warm.
- Bring a supply of fresh matches and multiple striking mechanisms
- Carry a Magnesium bar and striker.
- Carry dry tinder and fire starters.
- Carry a butane lighter.
- A pair of ski goggles protects your eyes from wind and snow.
- Wide mouth water bottles should be used rather than narrow mouth ones.
- Bring something to sit and recline on rather than standing. Rest the back & legs.
- Bring a portable grate for the wood fire. Not all campfire rings will have a fire grate attached.
- Cooking pots need a large bail for easy handling.
- Snow shovels were useful for campsite setup, preparing a winter kitchen area, snow benches, etc.
- Thermometer required – bragging rights and the knowledge of what's failing due to the temp.
- Have large handles on utensils [to use with mittens].
- Comfort items: plastic mugs with a good lid design, snap off lid. Take lid off when not in use to avoid freezing shut.
- Have a pair of heavy duty leather gloves for work around fire or with metal tools & equipment.

FOOD & WATER

- Maximum preparation and minimum operation worked best – pre-cut and separate the breads [use wax paper to separate slices]; cut large foods into bite size chunks.
- Heavy duty foil was extremely useful.
- A lot of water was required. Have means to heat copious amounts of water.
- Toaster-type grill placed over the fire worked well for foods that needed only warming.
- Precooked hash brown potatoes were a big hit.
- Dried foods that were reconstituted at the campsite work well [there was no water to freeze them solid]
- Store extra water bottles upside down in a snow bank to keep from freezing. No snow??? Place water in a pot near the fire.

FIRE

- ❑ Wood fire worked better than gas stoves when substantial supply of wood is readily available.
- ❑ Portable wood stove – 2 recycling totes of split wood was adequate for 2 nights at -16 degrees F.
- ❑ Firewood for outdoor pit – 2 wheelbarrow loads of medium to large split wood was enough for cooking.
- ❑ Dutch oven required extra wood/charcoal to heat it up in these cold temperatures.

CLOTHING

- ❑ Pre-pack clothes as wearing units.
- ❑ Clothes you'll be changing into after the ride should be immediately available.
- ❑ Have chemical hand warmers immediately available, on your person, at all times.
- ❑ Place a hand warmer in same pocket as the camera.
- ❑ Keep some hand warmers [unopened] in pockets close to the body to pre-warm the packets.
- ❑ Activate a chemical hand warmer on a warm surface with frequent shaking and turning to accelerate the exothermic reaction.
- ❑ A 200 or 300 weight fleece neck gaiter around the neck and jaw and another one as a hat was great.
- ❑ A 200 or 300 weight extended balaclava was great for sleeping comfort.
- ❑ Pre-warm boots in the morning with water bottles filled with hot water.
- ❑ Mittens and wrist warmers worked when worn together. Bring extra of each.

Clothing at -16 degrees F:

- ❑ Fleece long-johns tops and bottoms.
- ❑ 2 pair of over the calf socks, both wool.
- ❑ Cashmere sweater from a second-hand store.
- ❑ Fleece jacket.
- ❑ Add a windproof fleece vest.
- ❑ Add wool pants or waterproof breathable/fleece pants over the long johns.
- ❑ Add 2 neck gaiters or 1 hat gaiter and an extended balaclava.
- ❑ High quality insulated boots.
- ❑ Sunglasses are required to protect the eyes.

SLEEPING

- ❑ Sleep with battery operated equipment.
- ❑ Fleece blanket around top of head or top of body worked well.
- ❑ Wool blankets underneath you in addition to your sleeping pad helps stop conduction.
- ❑ Vapor barrier bag inside the sleeping bag helped keep the sleeping bag dry and frost free.

LAST – NOT LEAST

If someone is cold, do not let up until you have them warm.