

# Beginning A Cold Weather Camping Program

**Training Summary:** For many troops and crews, the first chilly days of winter mark the ending of the outdoor program until spring. 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, provides both leadership and practical approaches for leaders wishing to bolster their camping program to year round. The Northern Tier National High Adventure Base also offers great opportunities to expand your cold weather skills.

**Time Required:** 45 – 50 minutes

**Target Audience:** This training is intended for adult leaders and Scouts wishing to add the adventure of winter camping to their outdoor program in a safe, yet challenging manner.

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

- Develop a plan to build winter leadership skills.
- Understand the safety issues involved in cold weather camping.
- Develop a plan to build the practical skills required for cold weather camping.
- Understand the differences between warm and cold weather clothing.
- Tips for camping in the winter.

**Training Format:** Classroom Setting

**Required Materials:** PowerPoint Presentation

## Instructor Introduction

Provide some background information for audience on instructor Scouting position, experience with cold weather, etc...

## Introduction

To most Scouts, the outdoor program is usually the highlight of any Troop or Crew. A 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 or Crew is looking to start cold weather camping, this training is for you. We will be discussing practical approaches that will help you develop a plan to introduce

cold weather camping to your Scouts. It takes good planning to assure safety and provide a meaningful program. If you and your Scouts have already experienced camping in mild conditions (above 50 °F), you've started to understand what cool camping feels like. But for most families, the thought of spending an extended time in the outdoors in winter is a foreign concept.

So how did we get to the point where being outside in the winter is not something we normally do? 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) The skill of knowing how to prepare for long periods of time in a cold environment is largely lost. Also, to many parents, sleeping in an unheated tent in winter or a thermal shelter, such as a quinzee, is cause for concern.

So, what approaches can we take to introduce cold weather camping to our Scouts?

## How to Start

There is no magic to camping in winter...but there are rules...Use common sense.

Leadership. In no other camp is leadership as important as in the winter camp. It is vital that a leader be an experienced camper with a strong character.

Equipment. Proper equipment is vital for winter camping. It tends to be a little more expensive than for summer camp, but Scouts must be adequately clothed, and leaders should ensure that blankets, sleeping bags and other equipment are of suitable quality and weight.

Physical Condition. A BSA medical form is a must to ensure physical ability of each Scout is good before training begins.

## Winter Leadership Skills

### #1 – A Safe Outing:

The adventure and fun are usually the main reasons any Scout wants to participate in any high adventure activity such as cold weather camping. As leaders, we must recognize the seriousness of this activity. Cold weather presents us with an unforgiving environment. You 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. As leaders we need realize that a safe trip is infinitely more important than any other trip goal. You need 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 these limits exceed your training or the group's capabilities, you have to be prepared to cancel or terminate an event. It is much better to thrive than survive on a cold weather outing.

You also need 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.

### Leader Preparation:

You need to be physically fit to handle the added stresses on your body in cold weather. Regardless of age, leaders may wish to discuss a fitness regime with their doctor. It is also useful to slowly acclimatize yourself to the cold and vigorous activity. Leader fitness also provides a great role model to your Scouts. Northern Tier also has additional requirements prior to participating in the Okpik program, which are found on the High Adventure Medical form.

Prior to your first cold weather campout, you should study winter camping techniques, cold weather physiology and proper nutrition. 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 also find local Scouters in your council who would be willing to help you with cold weather camping.

Exercise your skills and try things out yourself at home. 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.

### Two-deep leadership:

This 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 also want to be vigilant to detect early stages of hypothermia, frost nip or dehydration.

Use of the buddy system to check each other gives the leaders another layer of watchfulness. Keeping dry and avoiding prolonged exposure to the wind are major safety issues that need attention.

# Safety

Safety cannot be stressed enough in winter camping. Once your unit feels they have the leadership skills needed to camp in cold weather it is time to understand the safety issues you will be dealing with and the measures to take to prevent them.

## Heat Loss:

Radiation: Leading cause; through the head (1/2 at 40 degrees / 3/4 at 5 degrees); Hat

Conduction: Sitting on snow or rock; no gloves; using tools with metal handles; Gloves & Pad

Convection: Heat carried away by the wind; Windproof jacket

Evaporation: Sweat from working or heating up; Wicking layer to remove moisture

Respiration: Breathing in cold air and exhaling warm air; Not a lot to prevent

Wind Chill: Compounding effects of convection...shelter from wind & use a wind layer.

Water Chill: Keep from getting wet or sweating...wet clothing will pull the heat out of you.

You should remember:

The proper choice of clothing for winter camping will provide the first layer of defense against the cold and wind. Make sure the Scouts understand the difference between summer and winter clothing and that they need to avoid cotton garments.

Cotton is excellent for summer. When it is wet it cools the skin which is great for hot weather, but it does not change its character in winter...it still cools you. Leave cotton garments at home when the temperature is 50 degrees or less.

A good rule to observe is to use the 3 Ws. Remembering these will provide a good foundation for protecting you from the cold. The 3 Ws are:

Wicking: A good nylon or polyester base which will get the moisture away from your skin.

Warmth: A fleece or wool layer that will trap heat provide you with warmth

Wind: An outer layer or shell which will keep the heat in while preventing the wind from carrying it away.

Clothing should not be tight or restrictive, which can prohibit good circulation.

Pay close attention to internal signals. If you feel hot, open or remove a layer to prevent sweating. If you are cold, close up or put on a layer before you become too chilled.

## Sleeping:

The same principles apply to sleeping as they do clothing. You are still trying to overcome the same heat loss. The primary one being conduction and radiation. Sleeping systems come in all forms, depending on the type of cold you may be camping in. Do your research and understand how heat loss can affect you and the Scouts.

## Cold Injuries:

Understanding first aid and having a good first aid kit is vital for cold weather camping. I find more injuries happen in the cold than in warmer weather. This class is not a first aid course, so please be trained and prepared to handle the injuries described here. Here are the major issues to watch for.

Dehydration. Even though it is not hot out, the risk of dehydration is still a concern. You will lose a lot of fluid by sweating, which you may not recognize because of the cold. One major difference in becoming dehydrated in winter is that you may not become thirsty like you would in hot weather. The bottom line is to make sure everyone is drinking plenty of water.

Hypothermia, also known as freezing to death, is a major concern during winter camping, especially if it is wet. The 25 to 50 degree range is of major concern. Hypothermia occurs when the body is losing more heat than it can produce. Dehydration is a major contributor of hypothermia. The bottom line here is observe the rules for preventing heat loss.

Frostbite. This injury occurs when the skin is exposed to temperatures cold enough that ice crystals form in the tissue of the skin. It starts as painful and becomes numb from there. The skin could also have grayish-white patches where ice crystals may be forming. This first stage is known as frostnip. The bottom line is to dress in the appropriate layers of non-restrictive clothing and protect your skin from the cold.

Snow Blindness. This is an inflammation of the eyes due to exposure to ultraviolet rays of the sun. It is very common when your eyes are unprotected from the sun reflecting off of snow. The bottom line is protect your eyes with sunglasses or goggles.

Carbon Monoxide Poisoning. Carbon monoxide is a colorless, odorless, and tasteless gas that can kill quickly. Common exposure is due to poorly ventilated shelters or using a heater in a tent, which should never be done.

## Practical Skills

### Appropriate Program:

Most troops beginning a winter outdoor program will have Scouts of different 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 are 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.

## Practice:

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. You can use the weeks prior to your campout to build the anticipation and work to build confidence by using local parks or backyards to practice. This is a good opportunity to test out their clothing, sleeping systems, and other gear.

It is very important to know how your equipment will function in the cold. For instance, some propane 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. Be very careful with liquid fuel stoves if you use them. You will need protective gloves and a good funnel. A point to remember is that liquid fuels do not freeze and could be below 32 degrees and when they come in contact with the skin, there will be instant frostbite.

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.

## Proper Nutrition:

Not going into this too much, because there is a wealth of information on food and menus online and as with most mature Scouting units, there is a good background in hearty, outdoor cooking.

A couple of things to point out are:

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

Cold weather camping often requires more equipment than can be carried in backpacks. Practice using toboggans, 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. Protect your gear. It is amazing how much troop and personal equipment is lost if it falls into the snow.

Build interest and excitement in the cold weather outing early in the season and don't forget to involve the parents. This will build their interest and also relieve any concerns about camping in cold weather. Remember to use District and Council events to build interest. The Klondike derby is a great way to engage the Scouts in cold weather skill building.

# Reflections on a Cold Weather Campout

Weather conditions: 10 degrees F 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.

Things to Remember: 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 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).

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.

Wet metal spoons and forks froze onto lips and tongue while eating and were 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 gloves or 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 large amounts of water.

Toaster-type grill placed over the fire worked well for foods that needed only warming.

Precooked meals or food items provide ease of preparation.

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.

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 hand warmers immediately available, on your person, at all times.

Place a hand warmer in same pocket as the camera.

Keep unopened hand warmers in pockets close to the body to pre-warm the packets.

A fleece neck gaiter around the neck and jaw and another one as a hat was great.

An 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 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.

### LAST – BUT NOT LEAST

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

## Conclusion

A year-round outdoor program is of great benefit for all troops or crews. Cold weather camping, however, presents some challenging conditions, requiring preparation similar to other high adventure outings.

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.

Learn winter techniques and practice skills in small steps, even at home. It will build confidence. Remember, parents will appreciate the approach of added training prior to a winter campout.

Finally, Have Fun!