

# Troop 11 is going Snowcamping!

## Essential Snowcamping Strategies

1. No Cotton!
2. Wear a hat; you lose a huge amount of heat via your head.
3. Use a wide mouth Nalgene water bottle. It is easy to fill. Use it at night, as a hot water bottle in your sleeping bag.
4. Keep hydrated; eat a lot of high-energy snacks (GORP, Power Bars).
5. Adjust your layers often to regulate your temperature: not too hot, not too cold.
6. Take a long at least two newspaper bags to use as vapor barrier liners if your feet get cold.
7. Mitts are warmer than gloves. Bring spares, they get wet. You may want to wear liner gloves under mitts.
8. Don't go to bed cold. If you are feeling chilly, take a hike and warm up before turning in.
9. Use the buddy system. Don't wander off by yourself – there may be no trail? Check in with your buddy – is he warm and dry?
10. Have fun!

## Snowcamping Fabrics

### Good

1. Wicking
  - a. Polypropylene, Capilene
  - b. Silk
  - c. Wool
2. Warmth
  - a. Wool
  - b. Fleece
  - c. Down
  - d. Artificial Down (Polar Guard)
3. Wind Shell
  - a. Coated Nylon
  - b. Gortex
  - c. Anything 'Waterproof and Breathable'

### Not Good

1. Rayon
2. Lycra

### Horrible - DO NOT BRING

1. Cotton
2. Blue Jeans
3. Cotton Flannel
4. Corduroy – The worst. Evil. A suicidal selection.

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## How to Get Cold

### *To begin with, why are you are warm?*

Your body is constantly producing heat if you are alive, otherwise, not. Most of the heat is produced in the big muscles, your internal organs and your brain. The big muscles can produce a lot of heat very quickly. Your gastro-intestinal system will put out more heat during digestion. Most of the heat is moved around through your body via your blood.

Your body is also constantly producing moisture in the form of vapor emitted through your pores, sweat and moist air breathed out of your lungs. These are all ways your body loses heat.

Your body loses heat everywhere, but primarily through your extremities: your head, hands and feet.

If your body is starting to lose heat in a cold environment, it will automatically react in a number of ways:

- 1) It will send less heat to the skin via blood and retain that warm blood for your body core.
- 2) It will cause you to shiver, which moves the big muscles around, causing them to generate heat.
- 3) It will cause you to sweat less if you have been exerting yourself.

Your body needs to stay at a very uniform temperature in order to work properly, and for you to feel well. The temperature is regulated by a fairly complicated control system.

### *And why is it cold out there?*

Because it is winter in the mountains! Bad question!

How cold is it? This is a good question. Remember, snow is a good insulator. The temperature of snow is always 32F, no matter what the air temperature is. If it isn't 32F, it isn't snow!

The air temperature is highly variable. It can be much colder than the snow, like 15F-20F at night, or much warmer, 50F or 60F or more on a bright sunny day.

The air can seem much colder if there is a wind blowing, even quite a mild wind and it dramatically increases the cooling effect.

Remember also that cold air is very dry; it can't hold much moisture.

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### **So how do I get cold?**

#### ***External***

**Conduction** – *transmission of heat from a warm object by direct contact with a cold one.*

So if you want to get cold:

1. Stand on the snow without any insulation between you and the snow. (Otherwise stand or sit on an insulating pad)
2. Don't put an insulation pad under your sleeping bag at night. (NOTE: The primary source of heat loss at night is conduction of your body heat into the ground. Your body compresses the loft in your bag, reducing your insulation. So, use two pads to reduce your heat loss).

**Convection** – *transmission of heat away through currents in the medium (air)*

So if you want to get cold:

3. Pick a really windy place to camp.
4. Don't wear a wind shell; just let the wind blow straight through your clothes.

**Radiation**- *emission of energy to the air*

So if you want to get cold:

5. Don't wear enough insulating layers to trap all that heat your body is generating.

**Evaporation** - *change of sweat from liquid to gas and "heavy breathing"*

So if you want to get cold:

6. Get really sweaty and take off your wind shell, so you can dry off really fast
7. Get really out of breath so you are panting a lot and breathing out a lot of air made warm and moist by your lungs.

#### ***Internal***

**Vascular Constriction**

If your clothes are really tight then the warmth-bearing blood can't flow easily through that part of your body. That is most evident with tight fitting boots.

So if you want to get cold:

8. Wear boots that are little snug, put on two or three pairs of socks so they are really snug, then lace them up tight. Those feet will be icebergs real soon!

**Decrease metabolism**

Remember, eating and digesting, especially warm food increases your internal heat production.

So if you want to get cold:

9. Don't eat and drink. If you do drink, drink some water really close to freezing temperature so your poor overworked body has to expend more energy warming the water up to body temperature.

**Extremities**

Remember where most of your heat is lost from.

So if you want to get cold:

10. Don't wear a hat, or gloves or mitts.

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## Personal Equipment

- a. Carry
  - i. Back Pack
    - 1. Stuff Sacks or Plastic Bags to organize gear
    - 2. Spare large garbage sack to put boots in at night
  - ii. Fanny Pack or Day Pack
- b. Essentials
  - i. Whistle
  - ii. Matches
  - iii. Water bottle – wide mouth Nalgene is preferable
  - iv. Pocket Knife
  - v. Spare Food – Energy Bar
  - vi. Light – preferable headlamp, preferably one that takes AA batteries, preferably they are Lithium batteries
  - vii. Sunscreen
  - viii. Lip balm
  - ix. Sunglasses
  - x. Paper/pencil
  - xi. Two plastic newspaper sacks or similar VBL's (Vapor Barrier Layers, for keeping heat in) for your feet
- c. Dop Kit
  - i. The usual – toothbrush, toothpaste, floss, mouthwash...
- d. Mess Kit – unless we use disposables (TBD)
  - i. Plastic Measuring Cup or plate
  - ii. Fork and Spoon
  - iii. Insulated Cup
- e. Sleeping Kit
  - i. 1 or 2 closed cell foam pads and or Thermarests NOT cots, NOT air mattresses
  - ii. Sleeping Bag
    - 1. Rent winter bag or 'nest' two sleeping bags
  - iii. Tarp (ground cloth) or bivi sack if you have one
- f. Clothes – NO COTTON!!! Loose Fitting, Multi Layers, Quick Drying, Warm when Wet
  - i. Body **WOOL, POLYPROPYLENE AND FLEECE – NO COTTON**
    - 1. Wicking
      - a. Long underwear top and bottom- wool silk or polypro – **NO COTTON**
    - 2. Warmth
      - a. Wool or fleece pants
      - b. Wool or Fleece shirt
      - c. Down vest or Jacket
    - 3. Shell (Windproof & Waterproof)
      - a. Ski Pants
      - b. Ski Jacket

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### ii. Head

1. Wicking
  - a. Lightweight balaclava- wool silk or polypro
2. Warmth
  - a. Watch Cap or fleece cap – something that will cover your ears too. Wool or fleece
3. Shell (Windproof & Waterproof)
  - a. Hood on jacket

### iii. Hands- Mitts are warmer than gloves!!!

1. Wicking
  - a. Liner gloves- wool silk or polypro
  - b. Warmth
2. Warmth
  - a. Fleece or wool gloves
3. Shell (Windproof & Waterproof)
  - a. Overmitts or ski gloves

### iv. Feet

1. Wicking
  - a. Liner socks-wool silk or polypro
2. Warmth
  - a. Socks-wool silk or polypro
3. Shell (Windproof & Waterproof)
  - a. Oversized hiking boots or mukluks or Sorels –make sure you have lots of sock and wiggle room – cramped feet are COLD feet
  - b. Gaiters that will cover the gap between your pants and your boots
  - c. VBL's for your feet. If your feet are cold put the bags (in Essentials above) over your liner socks, put your socks and shoes on and your feet will be MUCH warmer.

### v. Bed

1. Clean dry polypro to sleep in
2. clean dry socks to sleep in
3. down booties – verrrry cozy

### vi. Spare/Back-up

1. Wicking
  - a. Liner socks
  - b. Liner gloves
2. Warmth
  - a. Socks
  - b. Gloves/mitts
3. Shell (Windproof & Waterproof)
4. Anything that you think you will lose or get soaking wet...

### vii. Hygiene

1. Bandana – THIS can be COTTON!!!

### g. Travel

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- i. Snowshoes (rent)
  - ii. Ski poles
2. Patrol Equipment
  - a. Tents equipped with deadmen and cords
  - b. Tarps with deadmen and cords
3. Group Equipment – from Sierra Club
  - a. Shovels
  - b. First Aid Kit
  - c. Snow Saws
  - d. Equipment Sleds?
4. Central Commissary
  - a. 2-3 White Gas Coleman stoves
  - b. White Gas
  - c. Pots
  - d. 2-3 MSR XGK stoves (for backpackers)
  - e. Small Cooking equipment
  - f. Water/Bug Juice Barrels?

## AIR TEST

### ANDREAS'S INDEFECTIBLE RULES TO ELIMINATE SNOWCOUNTRY TORTURE

Every so often during the day and night make sure you can pass the air test. If you don't pass, adjust your clothing accordingly. If that doesn't help, get a buddy, or someone to advise.

1. **Stay Dry** — That's obvious isn't it? And it's impossible too isn't it? You are bound to get wet standing around, playing in the snow, aren't you. The point is you try and stay as dry as possible and WHEN you get wet, you take action to get dry clothes on from your pack. And you will try to hang your wet clothes up so they will dry off so you can get them wet again....Don't bunch them up in the bottom of your pack where they will freeze into a solid glob of stinking polypro.
2. **Stay Wet** — “What??! Rule number 1 says stay dry...” Stay wet INSIDE - keep hydrated, keep drinking fluids: water or hot soup or hot chocolate. It is really important to keep hydrated at altitude in the mountains. The winter air is dry and you may not notice that you are dehydrated. Keeping hydrated improves your circulation; that means the blood is flowing to your toes and fingertips and they are warm. Drink BEFORE you are Thirsty. Eat BEFORE you are hungry.”
3. **Stay Warm** — Duhhhh. That's pretty obvious too isn't it? Except when you are in the middle of something fun like building a snow cave and you are feeling a little cool, but you want to get finished and you'll warm up later -STOP!! Look after yourself FIRST!! Put on another layer.
4. **Stay Cool** – Okay, not 'cool', BUT don't get overheated. If you do, you will be sweaty and that will lead to real coldness. So when you are in the middle of something fun like building a snow cave and you are feeling a little hot and sweaty, but you want to get finished and you'll cool down up later.... STOP!! Look after yourself FIRST!! Take off a layer. Put it away in your daypack or somewhere handy and dry so you can get to it when you need it later...

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## **RECOMMENDED RENTAL AND EQUIPMENT SHOPS-**

Check rental equipment carefully. Take boots you will be wearing and try on snowshoes before you leave the store to be sure that all straps, etc. are there and in good working condition. When reserving snowshoes, give your weight and loaded pack weight. (see Sierra Club snowcamping page too).

### **SAN FRANCISCO**

- REI (Recreational Equipment, Inc.) 415-934-1938

840 Brannan (between 7th and 8th)

Atlas Snowshoes—for Members-\$16.00 first day, \$8.00 each additional day

Non-Members \$26.00 first day, \$13.00 each additional day (deposit required)

No pole rentals

Members may reserve up to one month in advance. Non-Members—first come, first served

### **MARIN COUNTY**

- Any Mountain 415-927-0170

71 Tamal Vista Boulevard, Corte Madera

Tubbs snowshoes with poles—\$20.00/2 days and \$6.00 each additional day

Reservations may be made 3 days in advance.

### **SONOMA COUNTY**

- Sonoma Outfitters (NO snowshoe rentals) 707-528-1920

1702 4th Street, Santa Rosa

### **EAST BAY**

- Any Mountain 510-665-3939

2777 Shattuck Avenue, Berkeley

Atlas and Tubbs snowshoes with poles—\$20.00/2 days and \$6.00 each additional day

Reservations may be made 4 days in advance

- Marmot Mountain Works 510-849-0735

3049 Adeline Street, Berkeley, near Ashby BART station

Atlas and MSR snowshoes with poles—\$26.00/3 days

Climbing skins—\$16.00/3 days

May also rent sleeping bags, tents, skis

Reservations by phone or in person up to 1 month in advance. 24 hour cancellation policy

- REI (Recreational Equipment, Inc.) 510-527-4140

1338 San Pablo Avenue, Berkeley

Atlas snowshoes—for Members \$16.00 first day, \$8.00 each additional day

Non-Members \$26.00 first day, \$13.00 each additional day (\$200 deposit)

Poles—Members \$10.00 first day, \$5.00 each additional day

Non-Members \$20.00 first day, \$10.00 each additional day (\$25.00 deposit)

Members may reserve up to 1 month in advance. Non-Members—first come, first served  
continued on back !

- REI (Recreational Equipment, Inc.) 925-825-9400

1975 Diamond Boulevard, The Willows Shopping Center, Concord

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Atlas snowshoes with poles—for Members—\$16.00 first day, \$8.00 each additional day

Non-Members—\$26.00 first day, \$13.00 each additional day (\$200 deposit)

Members may reserve up to 1 month in advance. Non-Members first come, first served

### • Sunrise Mountain Sports

2455 Railroad Avenue, Livermore 925-447-8330

MSR snowshoes—\$18.00/2 days and \$22.00/3 days (\$75.00 deposit)

Poles—\$10.00/2 days and \$13.00/3 days

Sorel Snowboots—\$10.00, \$3.00 each additional day

Backpacks, sleeping bags, tents, thermal pads, and snow shovels also for rent

Reservations can be made in advance using credit card or 25% deposit to hold reservation

### • The North Face Seconds Store 510-527-9700

1101 Gilman, Berkeley

(NO RENTALS) good bargains

### • Wilderness Exchange (NO RENTALS) 510-525-1255

1407 San Pablo Avenue, 1 block south of Gilman, Berkeley

Buys and sells used outdoor equipment and clothing; rents chains and ski racks

## PENINSULA AND SOUTH BAY

### • Any Mountain 650-361-1213

928 Whipple Avenue, Redwood City

Atlas and Tubbs snowshoes with poles—\$20.00/2 days and \$6.00 each additional day

Reservations can be made the Tuesday before the weekend needed, first come, first served

### • REI (Recreational Equipment, Inc.) 408-871-8765

400 El Paseo (El Paseo Shopping Center), Saratoga

Atlas snowshoes with poles—Members—\$16.00 for first day, \$8.00 each additional day

Non-Members—\$26.00 for the first day; \$13.00 each additional day (\$100 deposit)

Members only may reserve up to 1 month in advance with credit card

### • REI (Recreational Equipment, Inc.) NO RENTALS 510-651-0305

43962 Fremont Boulevard, Fremont

### • REI (Recreational Equipment, Inc.) 650-508-2330

1119 Industrial Road, San Carlos

Atlas snowshoes—Members—\$16.00/first day, \$8.00 each additional day

Non-Members—\$26.00/first day, \$13.00 each additional day (\$200.00 deposit)

No pole rentals

Members may reserve 5-7 days in advance using credit card

Equipment Rentals (continued) Page 2

For equipment sales, check Yellow Page listings under "Backpacking and Mountaineer Equipment and Supplies"

and "Camping Suppliesb."