

SHELTER IS ONLY CLOTHING AT A DISTANCE

The Oxford American dictionary defines a shelter as “something that serves as a shield or barrier against danger, heat, wind etc”. Shelter is only clothing at a distance. It may or may not include artificial heat producers, such as stoves. A shelter may be constructed of any material (lumber, bark, paper, cardboard, plastic, snow or dirt) and utilize insulation materials (snow, dirt, paper, fabric bark, wood, cardboard, air) to help reduce body heat loss by convection, evaporation, radiation or conduction.

In emergency situations, such as wind and rain storms, where shelter is mandatory, man would be wise to do what the local animals do -- burrow in or crawl under foliage. In forested areas it is faster to burrow or hollow out a small shelter under a downed tree than to find suitable material to erect a shelter. Time spent constructing such a shelter can be costly in energy and body heat loss due to more exposure to the very conditions that the shelter is to protect from. A shelter must serve the immediate needs of the builder. Each shelter should be built to provide a minimum of body heat loss and a maximum of body protection.

This time of year if you're going skiing, snowshoeing or winter camping for several days, a well-made snow cave is the next best shelter to a cabin with a fireplace. More than a few cross-country skiers out for a casual ski have lost their way or been trapped in a howling blizzard. In these circumstances,

knowing how to build a snow cave can mean the difference between survival and death.

When constructing a snow cave, be aware that a small space is easier to heat than a large one, and is also structurally more sound. If your group contains more than four people, you should consider building two caves. Emergency caves can be built in 15 minutes. For the simplest form of emergency cave, find a drift or ridge and dig the cave straight into the



EMERGENCY SNOW CAVE

snowbank. You can dig with your hands or your skis if you don't have a shovel. The snow should be deep enough to allow room for a roof that's one foot thick; otherwise, a cave-in is possible. Dig the cave only as large as the space your body takes when sitting with your knees drawn up to your chest. Line the cave with pine or spruce boughs, leaves or any other dry material you can find. Climb into your sleeping bag, or if you're not carrying a sleeping bag you should have a plastic tarp or garbage bag in your emergency gear and

sit on your mattress pad. If possible, climb into your backpack as well. If you can't fit, put your legs in your backpack and draw them up to your chest. If you have more time and energy, you can build a warmer emergency cave by starting with a tunnel, but only hollowing out as much space as necessary to sit in an upright position. You can straighten your legs in this type of structure by extending them into the tunnel, line the bottom with spruce boughs and sit on your mattress pad.

Larger snow caves take hours to build (approximately 3 hours) and require some type

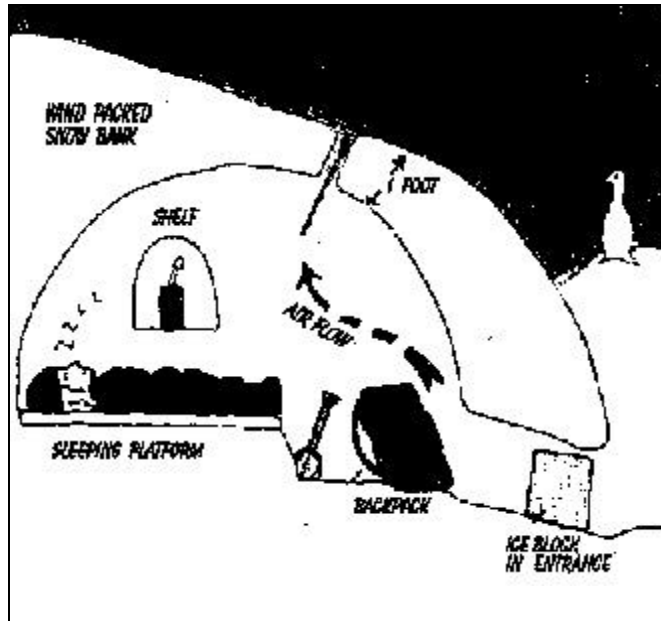
of tool, such as a shovel, mess kit or hard hat, for removing the snow. Snow is a good insulator. Caves dug into deep snow banks are quite satisfactory. Keep your clothing dry when digging. Work slowly to avoid excessive sweating.

To build a larger snow cave, look for firm (preferably wind-packed) snow on the lee side of a ridge (the side sheltered from the wind) or in drifts that form around large rocks, gullies or trees. As with the survival caves the snow should be deep enough to allow room for a roof that's one foot thick. Never dig under large cornices or on steep slopes heavily loaded with snow. Avalanche

hazard in these areas can be high. If you can't find an appropriate ridge or drift, choose low-angle slopes-between 15 and 25 degrees for your cave. Begin by stomping the snow with your snowshoes or skis. Then, with a small shovel, dig a tunnel a little wider than your body, at an upward angle into the slope-the cave end of the tunnel should be about a foot above the entrance. About three feet in, begin to carve out a cave at right angles to the tunnel entrance. This design blocks wind from entering the sleeping chamber. The sleeping platform should be another foot or more higher than the floor. Place a ground cloth and sleeping pad on the platform to keep your bag insulated and dry. Once you've cleared the bulk of the snow, you can carve all sorts of shelves and alcoves for gear. Smooth the ceiling and walls into a

dome shape with your shovel. The dome construction is not only stronger, but as snow melts, water will run down the walls rather than dripping on you and your gear. Then, with a ski pole or stick, poke a ventilation hole above the kitchen area to keep fresh air coming in and

carbon monoxide from your stove going out (leave the pole in place and wiggle it occasionally to keep the hole open). Block the inside entrance of the cave with your backpack to help keep wind out and your body heat in. Keep your shovel inside the cave in case snowdrifts block the tunnel entrance.



THE DELUXE SNOW CAVE

A camp stove or lantern can heat up a snow cave as much as 20°, causing the ceiling and walls to melt. However, they quickly refreeze once the stove is out. If the ceiling sags out of its dome shape during the night, reshape it in the morning.

When constructing a larger snow cave again be aware that a small space is easier to heat than a large one. .

**TACOMA MOUNTAIN RESCUE
BOARD MEETING MINUTES
December 29, 2004**

These minutes as published are unofficial and subject to approval at the next regularly scheduled board meeting. Convened 19:00.

BOARD MEMBERS PRESENT: Chris Muhs, Gus Bush, Ken Capron, Greg Lang, Fran Martoglio, Bill Weber, Jeff Sharp, Tyler Severy, Rod Scott

OTHER MEMBERS PRESENT: Ken Davies, Chris Berryman, Christine Davies, Tod Lokey, Marianne Kaufmann

Last month's minutes were reviewed, corrected and accepted.

TREASURER'S REPORT: not present

- December report was reviewed. Motion was made and seconded to accept this report.

KIT REPORT: Chris Berryman

New roles involving member participation in Kit party management and kit supply handling will begin in January.

OPERATIONS REPORT: Gus Bush

- No operations this month.

TRAINING REPORT: Rick Wire

There will be a two-day avalanche course available at Mount Rainier National park and is open to our members.

A survival instructor from Alaska is interested in giving a presentation.

EQUIPMENT REPORT: Rod Scott

A new outdoor light was purchased for the front of the Cache after the existing light fixture failed.

A motion was made to sell four of the Pieps transceiver units and replace them with Backcountry Tracker units. The motion

passed. A rigging committee met to discuss changes to the standard rigging kits. The group will meet again and present any proposed changes to the board.

COMMUNICATIONS: Tyler Severy No Report

SAFETY & EDUCATION: Tim Greminger No Report

January 3rd and 11th Chris Berryman is giving a talk to both a ski club and Mountaineers groups.

MEMBERSHIP REPORT: Chris Muhs

Four primary changes to membership standards were proposed and reviewed by the board along with the membership standards in general. Further changes were proposed and will again be reviewed by the board at a later date.

FINANCE REPORT: Bill Weber

- No report given.

MRA: Jeff Sharp

Two new teams have shown interest in forming under the MRA.

A proposal was made to host a regional combined mountain rescue training consisting of two days of training. The expenses could be covered by WMRA.

SAR COUNCIL: Ken Davies No report

AIR OPS: Jeff Sharp No report

MAST: Bill Weber

We are seeking a replacement member to attend meetings beginning in January.

2005 TRAINING SCHEDULE

The 2005 Unit Training schedule is on the following page. It is subject to change due to unit needs

OLD BUSINESS:

The content of a membership related meeting was discussed and information was shared with members present.

The truck driver list was reviewed and revisions were made.

NEW BUSINESS: none

Meeting Adjourned at 21:45

Respectfully yours,

Greg Lang, VP acting in the absence of Mark Cooksley

KIT PARTY

The following members attended the kit party on 1 Dec:

Ken Capron

Greg Lang

Bill Weber

Chris and Tracy Berryman

Gus Bush

They made 146 Kits

RUCKSACK ON THE WEB

Between Tod Lokey and myself we think we have worked out a reliable system to place electronic copies of the Rucksack on the Units Web page. This would save the unit funds on postage and printing cost. If you would like to receive a notice of when the current month's issue is available please go to the unit website www.tmru.org and click on the link. After that you will stop receiving hard copies thru the mail.

TACOMA MOUNTAIN RESCUE UNIT TRAINING SCHEDULE FOR 2005

(all events are subject to change due to unit needs)

Day	Subject	Instructor
Jan 12 (wed)	Medical (30 minutes) Snow climbing and anchors	Fran/Rick
Jan 15 (sat)	High Angle Ice/Snow Anchor Systems	Chris/Rick
Feb 9 (wed)	Med (30 min) Basic Rigging and Rope Handling	Fran/Rod/Ken D.
Feb 12 (sat)	Basic Rigging and Rope Handling	Fran/Rod/Ken D.
Mar 9 (wed)	Nav. and Search Techniques	Jeff/Fran/Greg
Mar 12 (sat)	Nav. and Search Techniques (night scenario with med)	Jeff/Fran/Greg
Apr 13 (wed)	Intermediate Rigging	Jeff/Rick
Apr 16 (sat & sun)	Intermediate Rigging	Jeff/Rick
May 11 (wed)	ELT Training and Radio Communication (Class)	Alan G/Lang
May 14 (sat)	ELT Training and Radio Communication (Field)	Alan G./Lang
Jun 8 (wed)	Rock Rope Handling, Anchors and Climbing	Rick
Jun 11 (sat)	Rock Anchors and Climbing	Rick
July 13 (wed)	Pierce Co SAR Cert	TBD
July 16 (sat)	Pierce Co SAR Cert (Field)	TBD
Aug 10 (wed)	Advanced Rigging	Jeff/Rick
Aug 13 (sat)	Advanced Rigging	Jeff/Rick
Sep 14 (wed)	Heli-Rescue Training Air Ops 1 (Class)	Jeff/Fran
Sep 17-18 (sat & sun)	Heli Rescue Training Air Ops 2 (Field)	Jeff/Fran
Oct 12 (wed)	Cold Patient Packaging, skills review	Alan
Oct 15 (sat & sun)	Skill review and scenario	Alan/Chris
Nov 9 (wed)	Urban Search and Rescue (Class)	Jeff
Nov 12 (sat)	Medical (30 minutes) Urban Search and Rescue (Field)	Jeff
Dec 7 (wed)	Avalanche	Rick/Chris
Dec 10 (sat)	Avalanche and winter travel	Rick/Chris