

## **Mountain School Tech Tips: What's In Your Pack This Winter?**

On January 13 2008, in Alberta's Rocky Mountains, a party of two backcountry skiers triggered an avalanche that buried one under a metre of snow, and left the other clinging grimly to a tree. Rod Plasman, an AST (Avalanche Skills Training) instructor was part of a group of nearby skiers that came to the rescue. When Plasman arrived on the scene, he found the buried individual had been dug out of the snow by his companion and another solo skier who had been passing by; but Plasman was surprised to find the unburied survivor sitting in the snow in a single pair of ski pants and an undershirt after removing much of his own clothing to try to warm his ski partner.

According to Plasman, the party of two did three things wrong, the first was skiing a dangerous snow slope in the first place, the second was exposing both skiers in the party to the slope at the same time, the third, was not carrying sufficient warm clothing to keep both members of the party warm in case of accident. George Field, Public Safety Specialist for Kananaskis Country concurs with Plasman, and recommends that "everyone should have an extra jacket, wind pants and a bivy sac .... with those things, you could dig a snow cave and have a miserable night, but you'd probably survive. Lots of people like to carry less gear so they can have more fun, but unfortunately, when things go wrong and you don't have enough gear, things can get really bad, really quickly. A down jacket doesn't weigh much."

So, what should you carry in your pack in winter? To answer that question I surveyed four long time KMC members whose combined time spent skiing in the backcountry exceeds a century. As one of the old timers commented, long time skiers "have had a friend or themselves caught out and have learned to be prepared." Below is a compilation of the common items (in addition to the clothing you are wearing) that you should carry in a standard winter day pack.

### Avalanche Equipment:

Avalanche transceiver

Probes

**Metal** shovel

Snow saw - doubles as saw to supply firewood

### Spare Clothing:

Down jacket

Extra gloves/mitts, socks, long underwear

Waterproof jacket/pants

Face mask/neck tube

### Emergency Equipment:

Headlamp and spare batteries

Bivy sack/space blanket/siltarp

Fire starter and matches

Whistle  
Satellite telephone/cell phone/radio  
Knife

Navigation Equipment:

Map  
Compass  
GPS  
Altimeter

Repair Kit Items:

T wrench with phillips, robertson, flat head and posidrive bits  
Posidrive screws  
Screw hole plugs  
Self tapping metal screws and long screws (to go through entire ski in worst case scenario)  
Drill  
Vice grips  
Equipment specific to your binding but sufficient to attach the toe of your boot to your ski or snowshoe  
Hose clamps, small piece of metal tubing (can repair broken poles), spare basket  
Spare skin tip  
Plastic zip ties (can be used to repair snowshoes as well)  
Duct tape  
Epoxy glue  
Hay wire

First Aid Kit:

Sufficient to your level of expertise

Obviously, some of this equipment can be shared between the group. One or two first aid kits and repair kits is likely sufficient for most groups, but every person in the group should be carrying: (a) sufficient/specific equipment to attach their boot to their ski/snowshoe in the event of an equipment failure; (b) navigation equipment, and (c) enough clothing and emergency equipment (headlamp, siltarp/bivy sack/space blanket, etc.) to survive the night.

For a good test of your preparedness do two things on your next trip into the backcountry: (1) take off your skis/snowshoes and see just how far you can walk – or should I say wallow; and (2) sit for an hour on a windy ridge in your current clothing after the sun goes down. You might be surprised.