

Avalanche Safety for Snowmobilers
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Snowmobilers die in avalanches every winter, killed by trauma or suffocation, an extremely unpleasant way to breathe your last breath. In the last 10 years 93 snowmobilers in western America have been killed in avalanches. This is no surprise. We love to ride steep, open, mountainous slopes in avalanche terrain. If you play in the lion's den you may get eaten, but as riders we don't have to go into the den when the lion is hungry. There's plenty we can do to stay safe and not just play Russian roulette with the mountains. Avalanches are all about timing. There are times to highmark and times to boondock. Playing in avalanche terrain is risky, but taking undue risks when simple solutions can keep us safe is unnecessary and, perhaps, traumatically and breathlessly unpleasant.

This past summer the International Snowmobile Manufacturers Association and avalanche specialists throughout North America created a simple, effective avalanche safety message. The causes of avalanche accidents do not change, and we can learn from the mistakes of others to educate ourselves and our friends. The safety message in the following five points were distilled from tragedy, but hold great potential to save lives, maybe yours.

GET THE GEAR: Ensure everyone has an avalanche transceiver, shovel, and probe on their persons and knows how to use them.

We make mistakes and think slopes are stable when they are not. That's why carrying rescue gear is essential. There's no wiggle room on this point. Everyone in your party needs this gear because if someone gets fully buried it's the only way you'll find them. Avalanche transceivers send and receive electronic signals allowing you to quickly pin-point your partner. A completely buried rider has an 80% chance of survival if dug up within 10 minutes, but 20% die no matter how quickly they are rescued. Avalanches kill and without gear the fatality rate nudges toward 100%. Once buried with a transceiver there is nothing to do but wait and do your best to stay calm and breathe slowly. If your partners have never practiced, it will be less likely they will find you within 10 minutes. You and your partners need to be fit, practiced and skilled, because the gear is only valuable and a life-saver in practiced hands.

GET THE TRAINING: Take an avalanche course.

Gear without training is almost worthless. I've seen folks not turn off their transceivers during a search, causing rescuers to follow false signals thinking they are close to the victim. I've watched fathers strap beacons onto family members with the words, "Don't worry how to use this. It's so I can find you," not thinking of the poor kid or wife looking for Dad without a clue of how to use the beacon. A little training goes a long way towards preventing these mistakes from ever happening.

Effective rescue work is important, but more valuable is having the skills and knowledge to not get caught in an avalanche. Always remember that avalanches kill. Reading an avalanche book is useful, but taking a class in the field is better. Training is key. There's no substitute for digging in the snow, learning about weak layers, and performing a rescue drill under time pressure. Field classes provide this and an opportunity to test your systems. Is your beacon buried under too many clothes? Do your shovel blade and handle mate quickly? Is it safe to play on steep slopes adjacent to a recent avalanche? (The answer is "No" as explained in the fourth point). If you live in an area where avalanche training is not available then travel to it. Most popular riding

areas in the western US are under the umbrella of an avalanche center. Tap into their course offerings and make it part of your vacation.

GET THE FORECAST: Make a riding plan based on the current avalanche and weather forecast.

More snow equals more avalanches. If a snowstorm ends exactly when your days off begin you are a lucky rider. Untracked powder awaits. However, new snow usually raises the avalanche danger. New snow and/or wind-loading can stress buried weak layers and make slopes ripe to slide. Avalanches occur when a weak layer within the snow propagates a fracture, a recipe that cannot be easily detected from the surface. Avalanche centers are staffed with trained professionals that will help you determine where the most dangerous and safest areas can be found. Snowpack stability fluctuates with elevation, aspect, location and time. A travel plan should include where the best riding is and where the most danger lurks. Think, plan and execute, then repeat again and again because Mother Nature is not static and neither are our plans. Go to www.avalanche.org for a full listing of centers throughout North America.

GET THE PICTURE: If you see recent avalanche activity, unstable snow exists. Riding on or underneath similar slopes is dangerous.

Recent avalanche activity is the number one sign of unstable slopes, and a rider who observes it does not need to call an avalanche center or dig a snowpit to know the avalanche danger is bad. Nearby slopes with a similar aspect and elevation have a similar snowpack. Thus, an untracked slope adjacent to an avalanche is also unstable and should be avoided. Do not play on or under similar steep slopes as during times of obvious instability it's very possible to trigger avalanches from the bottom of slopes.

GET OUT OF HARM'S WAY: Don't go to help your stuck friend. One at a time on all avalanche slopes. Don't group up in runout zones.

Avalanches are rarely random. Riders trigger 92% of the avalanches that kill the rider and/or his partners. That is why we go one-at-a-time when highmarking or otherwise playing on steep slopes. One person buried is better than multiple victims as partners are a finite resource. If more than one person is buried the odds of survival plummet because rescuers are stretched too thin. Too many snowmobiler triggered avalanches involve multiple fatalities because more than one person was on the slope or waiting at the bottom of the hill under the avalanche path. If snowmobilers become educated enough to stop exposing more than one person at a time in avalanche terrain the fatality numbers mentioned at the beginning of the article will drop by almost 50%. So, the next time your buddy buries his sled near the top of his highmark, you can intelligently justify chilling at the bottom of the slope and not helping him dig.