

# BE A SMART SANTA **THIS HOLIDAY** Backcountry safety gifts for winter enthusiasts

Christmas is around the corner and everyone will be scrambling for last minute gifts. How about getting your backcountry partner something that could save his or her life? Skiers, snowboarders and snowmobilers all need the same safety equipment. Here are a few ideas to help alleviate Christmas gift stress and backcountry danger with the same present.

## INCLINOMETER: \$20

An inclinometer is the cheapest avalanche insurance you can buy. Avalanches happen on slopes steeper than 30 degrees. Below that is not steep enough to slide. The only way to never get caught in an avalanche is to avoid avalanche terrain. The inclinometer identifies that terrain. Eyeballing steepness is not accurate and in most cases it's not even close. Your partner claimed to ski a 50 degree couloir? The inclinometer can fact check the biggest boast. When the avalanche danger is high, this cheap piece of plastic will let you know the difference between a 32 degree and a 28 degree slope, a 4 degree spread that tells you whether or not you are in avalanche terrain.



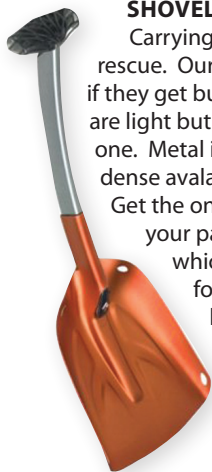
## SNOW SAW: \$30-45

A snow saw is a useful tool for performing stability tests. All stability tests involve isolating various sized blocks of snow and a saw cuts with precision. Since stability tests provide important decision-making data it's imperative to not be sloppy. Making a crooked column or rough cuts will give inaccurate results. Some saws attach to ski poles which extend their reach and look like a medieval weapon. This attachment is very helpful in cutting larger blocks for the Extended Column Test or Rutschblock, and the pole/saw combo can buzz through a small cornice with ease.



## SHOVEL: \$45-\$75

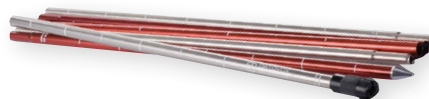
Carrying a sturdy shovel is crucial to avalanche rescue. Our partners rely on us to dig them out if they get buried, and vice versa. Plastic shovels are light but not as beefy or functional as a metal one. Metal is king. A metal shovel can cut through dense avalanche debris quickly and rarely breaks. Get the one with the biggest scoop that will fit in your pack. Some have telescoping handles which means less bending over, a bonus for bad backs. Others have D-shaped handles providing a more secure grip with icy gloves. A shovel is only good if you carry it, so get something that is not too cumbersome. If your partner has a garden trowel sized shovel,



make sure you swap him for your big, metal digging machine and remind him about being dug up one trowel-full of avalanche snow at a time.

## AVALANCHE PROBE: \$45-\$90

Avalanche probes look like a collapsible tent poles on steroids. Measuring 6-9 feet in length they snap together with a cable and help pinpoint a buried victim. Pinpointing is essential; because once we start digging it's easy to miss a body by inches. Minutes matter in avalanche rescue and a good probe saves time. The expensive ones are made of carbon fiber which is exceptionally strong and lightweight. Metal probes are standard and each manufacturer has their own proprietary locking mechanism. Regardless of the type, everyone in the backcountry should have one. Some shovels come with a probe stashed in the shaft, but I've found these straw sized probes too fragile for real rescue work. Probes come in different sizes (190-300 cm) with longer generally being better. Some ski poles screw together and double as an avalanche probe, but these should only be used as a backup because they are shorter and more difficult to push through the snow.



## AVALANCHE TRANSCIVER: \$200-\$490

An avalanche transceiver is the most expensive safety item that every backcountry user needs. A transceiver (aka beacon) is strapped to the body and can transmit and receive a signal within a range of 100 to 200-plus feet. All brands of beacons use the same frequency and are compatible with each other. Everyone wears a transmitting beacon, and when someone gets buried in an avalanche all survivors switch to receive mode, spread out across the debris and begin searching. This is the only reliable way to find a buried person. Some transceivers are simple to operate while others are more complex. Beacons with multiple antennae can pinpoint a buried person quicker than one with a single antenna. Some have a built in compass, can find multiple victims, are GPS units, and are only a few years away from making a cup of espresso. There's a fine line between technology being too confusing and making search times faster. More features are not necessarily better, but no matter which beacon you buy they all work best in practiced hands.



BY DOUG CHABOT

## AVALUNG: \$130-\$260

The Avalung, made by Black Diamond, is a snorkel-like tube that is either worn as a bandolier or integrated into a backpack, depending on the model. It allows an avalanche victim to breathe fresh air directly from the snowpack. Avalanche debris is 40-50% air and victims die of carbon dioxide poisoning from breathing their own exhaled breath. This Avalung gives the victim much higher odds of surviving a prolonged burial by venting exhalation away from the intake. People have been found alive after two hours of burial with an avalung. Normally, less than 1% survive a two hour avalanche burial.



## AVALANCHE AIRBAG: \$680-\$999

Avalanche airbags are a special backpack with a ripcord that deploys a durable balloon. The balloon reduces burial depth and can even keep you on top of debris. A time consuming part of a rescue is finding the victim. A colorful airbag sticking out of the snow eliminates a beacon search and speeds up the rescue. Airbags are new in North America, but have been in use in Europe since 1990 and the survival statistics are impressive. They should not be used in place of a transceiver, but are an effective piece of equipment. The pack has a small cylinder of compressed gas to inflate the bag. Some models can be refilled using readily available compressed air while others require an entire new canister. Avalanche Airbags save lives and are a worthy addition to the safety equipment quiver.



## AVALANCHE ADVISORY: FREE

All the equipment in the world won't undo a poor decision. The Avalanche Center gives pertinent snowpack and weather information every morning to help people make good decisions and stay safe in the backcountry. Read the advisory online or sign up your partner at [www.mtavalanche.com](http://www.mtavalanche.com). Even cheapskates can be smart. ♦

Doug Chabot is the director of the Gallatin National Forest Avalanche Center.