

Professional Secrets For a Quick Avalanche Rescue

By Doug Chabot

Imagine this terrifying scenario: You are at the top of a slope that just avalanched and buried three of your friends. Only you can save them. Their survival is up to you alone and the odds are very low because time is not on your side. A person has an 80% chance of surviving if dug up in 10 minutes. This rapidly falls to 20% in 30 minutes. Can you get all three to the surface in 10 minutes? If you have a helper, maybe, just maybe. The difference between your friends living and dying boils down to one thing: your training. Conversely, if it is you under the snow, your life or death depends on your friends' training.

Practice, practice, and practice some more. As professionals, we hope for the best and prepare for the worst. For the last two winters Big Sky Ski Patrol has run a simulated rescue drill for their patrollers.



Jonathan Binger and Chelan Babineau-Z presented the results at the September's International Snow Science Workshop. Their findings are enlightening and can help us be better rescuers.

Each patroller was tested on a 150 foot square of open slope with a beacon buried in a pack three feet deep. A total of 120 drills were completed with an average time of 5:35 minutes to extricate the beacon. Not bad for an average. The quickest rescue was 2:02 minutes, the slowest 17:43 minutes. Jonathan and Chelan noted that

the most time wasted was during the beacon search, which was not a big surprise. Not as obvious was the long times folks spent accessing and putting together probes and shovels. Not pinpointing, not digging, but finding and assembling probes and shovels. Sometimes probe cables broke, but mostly folks did not have these critical tools ready for deployment. They fumbled.

Other factors are equally notable. The rescuers' physical conditioning was huge. During a rescue, even a simulated one, people are under enormous stress: hearts pound, minds race and lungs are ready to burst. Additionally, even in the hands of trained professionals the old analog beacons are at least a minute slower than the newer digital beacons during the final steps of pinpointing. Training matters, but modern gear gives an edge. A minute is a long time if you're buried. The evaluators also painfully watched professional patrollers probing randomly instead of in a methodical grid. The quickest times were by those who followed textbook rescue strategies. In a crisis we default to our training; the better the training, the better the outcome.

The authors concluded:

1. "...the most important component of quick rescue is familiarity with the equipment used and keeping avalanche rescue gear current and up to date."

2. "Those that performed the best knew the range of their beacon and traveled quickly up the center of the debris area until a signal was obtained."
3. "...they assembled both the probe and shovel at the same time..."
4. "...(they) probed perpendicular to the slope in a consistent grid..."



The nightmare scenario at the beginning of this article is the granddaddy of avalanche problems. The American Mountain Guides Association uses this very scene in the final testing for ski certification. A candidate has seven minutes to find three beacons (in packs) buried three feet deep in an area 300-foot square, which is bigger than a football field. An assistant can help shovel, but the uncovered transceivers can only be turned off after the first two are dug out. The exercise is finished when the rescuer strikes the third pack with a probe. Seven sweaty

minutes is all you have for this pass/fail exam. It's the international standard for ski guide professionals.

Now you know the secrets: get in shape, buy good tools and know how to use them in all conditions, practice like your partner's life depends on it and encourage them to do the same.