



Promoting Avalanche Awareness in the Snowmobile Capital of the World

Story by Doug Chabot

The Gallatin National Forest Avalanche Center (GNFAC) came to life during the winter of 1990/91, 21 years ago. Encompassing West Yellowstone, Montana, the self-proclaimed “Snowmobile Capital of the World,” and the extreme terrain around Cooke City, snowmobilers were a focus from the beginning. During that first year Karl Birkeland taught the first snowmobile avalanche awareness classes in southwest Montana, reaching 140 riders. Long tracks were reaching 121" and engines were topping out at 650cc – puny by today's standards. The next season Karl wrote an article for *The Avalanche Review* titled “Avalanches and Extreme Snowmobilers” (see www.fsavalanche.org/NAC/techPages/articles/92_TAR_Av_Ext_Snowmo.pdf) which identified the audience and outlined his educational approach to the rapidly growing population of snowmobilers. Since then the GNFAC has given 188 awareness lectures (one to two hours long) to 7151 riders. During the winter of 1992/93 Karl offered his first field session for snowmobilers. After securing a loan of two mountain sleds from our local snowmobile shop in 1999, our field sessions took off, especially as our riding skills improved. By the end of last winter we had taught a total of 39 field sessions to 1187 snowmobilers since Karl's first venture.

Snowmobile avalanche awareness has been a large part of our education program in the last 10 years. In 1999 there was a big void in education as avalanche centers and educators were trying to get a handle on the rising tide of snowmobiler fatalities. Most of us did not ride very well, almost none had access to mountain sleds, and all our education lectures contained an overabundance of skier pictures to illustrate avalanche fundamentals.

On the Gallatin we took hundreds of photos with our new sleds and put together a PowerPoint lecture specifically aimed at snowmobilers. Seeing the need

for this type of education far beyond our borders, we burned 215 CDs and handed them out with an instructor handbook for free to anyone who wanted one: other avalanche centers, educators, schools, snowmobile clubs, etc. By having an open dialogue and sharing our education tools with all users we were able to give valuable avalanche education to thousands of riders across the country.

After flooding southwest Montana with awareness lectures, riders wanted more. They wanted to get in the field with us, so in 2000 we designed an Avalanche Awareness for Snowmobilers course: five hours of lectures followed by a day of riding in the field. This course was adopted in 2004/05 as the minimum standard of avalanche education for snowmobile guides on the Gallatin National Forest, the first requirement of this type in the nation. Every year the course evolves as we learn more about riders and their changing needs. More skiers with Level 1 and 2 certifications are becoming hard-core riders alongside younger athletic riders who are taking X Game moves into the big mountains. These changing demographics are forcing us to become better riders ourselves which is one of the funner aspects of the job.

COURSE STRUCTURE AND CONTENT

Our multi-day course is popular with at least three sessions a year: one in Bozeman and two in West Yellowstone. The Bozeman course has lectures on two weekday evenings with a weekend field day. In West Yellowstone we cover the same lectures in an afternoon with the next day dedicated to field sessions. All participants need a shovel and beacon and most have probes too. All riders need their own machine since we don't allow riding double – our experience has shown that this limits where we can go. Although we prefer a ratio of riders to instructor at 9:1 or less, we've been known to do 12:1 in a pinch. Regardless,

each instructor has a tail-gun volunteer whose job is to sweep the trail and keep the group moving forward. Occasionally sleds break and have to be towed back to the parking lot.

One of the worries, especially on days when the avalanche danger is elevated, is that a sledder will peel away from the group to hit an adjacent hill. This behavior is not tolerated – we explain our expectations of students not playing that day; we expect them to closely follow the instructor. We take a hard line, talk about it often, and in our 11 years of teaching these classes we've never had an issue.

We go riding with the class. If there's a hill to highmark, we discuss how to go about it: how to gather information, make cuts, watch one another, and be safe. Our job is to give them the skills to snowmobile in the mountains safely, and we practice this in class. We dig pits too, but usually just to identify layers and show them how the snow shears. We practice with the Compression Test, but mostly concentrate on heightened observation skills: recent activity, collapsing, and cracking. And we hammer in *The Big Three*:

- 1 Only ride a slope one at a time, and never go up to help your stuck buddy.
- 2 Recent avalanches equal instability.
- 3 Always carry rescue gear.

If riders never dug a snowpit but followed these rules, we would see a dramatic – over 50% – drop in avalanche fatalities overnight.

We spend half of our field day teaching beacons (single and multiple burials), strategic shoveling, and probing, and then we cap the afternoon with a dynamic rescue drill. Each group gets divided into two groups that set up complicated rescue scenarios for each other. This is the most powerful exercise

Outside Cooke City, MT, rescuers search for the body of a missing snowmobiler. He was high marking on a slope littered with tracks when the slope avalanched. He was wearing a beacon, but forgot to turn it back on after eating lunch in town. Photo courtesy Gallatin National Forest Avalanche Center

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Two snowmobilers were riding Mt. Jefferson, MT, when it avalanched, killing a local rider under six feet of snow. The rescue was frantic and unorganized until a trained Gallatin National Forest Snow Ranger arrived on scene. Case studies about avalanches in familiar terrain for the audience are powerful teaching tools. Photo courtesy Gallatin National Forest Avalanche Center

we do all day. Students are blown away at how physically demanding rescue is and how beacon practice is crucial to being able to perform under pressure. This is always the highlight of the day since it dispels all their misconceptions about how easy a rescue is.

For the classroom portion we include five lectures, each an hour long: terrain, weather, snowpack, human factor, and rescue. The science is standard level one fare, but we concentrate on *The Big Three*, since this is where lives will be saved. Calculating densities is cool, but knowing never to go up to help your stuck friend is critical.

Our lectures are laced with snowmobile accidents that we've investigated, each illustrating a particular point (i.e., you can trigger a slope from the bottom, facets are persistent weak layers, never leave the scene of an avalanche, carry rescue gear on your body, only one at a time on the slope, etc). Since these accidents occurred locally, many folks either know the victim, were part of the accident, or are intimate with the terrain. This is a powerful component of our lectures since we're showing real events on their home turf.

COSTS

All of our one- to two-hour avalanche awareness lectures are free. The multi-day course has a suggested donation of \$30 for the entire course. This allows anyone to take it, no excuses. Most people pay, and many give us more than the suggested minimum. We raise funds from within the community to pay for the instructor's time. When we first started our numbers were small and the fee was subsidized by our fund-raising efforts. But as years go by and more people attend, the \$30 entry fee covers the real costs associated with putting it on. We've found that the cheaper it is, the more people will attend and convince their riding partners to come too.

CONCLUSION

Although avalanche centers and educators across the nation are tackling snowmobile education locally, it's important for us all to move forward as a community. All regions have unique problems and strengths regarding snowmobiler education. Yet it's important to share our ideas, pictures, stories, and hard-learned lessons so we can move education forward in the US. Saving lives is our goal; everything else is secondary.

Doug's best riding advice came from a Polaris dealer the first time he stepped on a 154-800 RMK. He instructed, "Point it where you want to go, pin it, and don't let go. This sled is like a .357 Magnum, it'll kill you if you're not careful." As director of the GNFAC he graduated to a 2011 Yamaha Nytro MTX 162. ❄️

Thoughts on Snowmachine Avy Instruction

Story by Ryan Hutchins-Cabibi

General thoughts:

- The focus for the avy education community on the importance of sledders teaching these courses is right on. I had only been riding (out West) for about a year when I taught these courses, and that experience and ability to relate to the goals, desires, and culture of sledders was crucial to reaching them. In addition, having solid riding skills in a variety of conditions will increase the instructor's ability to access terrain, bond with students, and demonstrate techniques.
- The most interesting part of teaching to this population is the shift in our culture that we as educators need to embrace. I think as we make that shift, snowmobilers will welcome our education more and more. This means we need to learn to ride well and break down walls and stereotypes on all sides of the winter recreation community, then tailor our education to different populations.
- Snowmobilers want to know how to make decisions in avalanche terrain; clearly they love life and enjoy the outdoors. I think the challenges to getting them this education comes from our end: the more we can get snowmobilers to teach these courses, or become sledders ourselves, the more effective we'll be at saving lives.

More specific thoughts:

- I agree with the GNFAC's feedback for AAA guidelines.
- In the two courses I taught, I found that most riders had beacons but few, if any, had practiced with them. This was a highlight of these courses for participants.
- Lots of riders ride with their shovel attached to the sled somehow. Stressing the importance and reasons for having your rescue gear on you will be valuable on the courses.
- The use of video was highly effective with snowmobilers. There are tons of videos available on the Web that show snowmobile avalanche incidents and depict the vast terrain that riders can access. These videos add spice to a PowerPoint, and because they are shot by other riders, they are easy to relate to.
- The insight from Zac's paper on clothing choice was excellent and right on.
- The tests in the TAR article are a great start in mechanized stability tests. I am excited to see research on these tests that, hopefully, will prove that they are quantifiable.

- Chris Lundy's article, *Shredders Teaching Sledders*, is right on the money (see page 17).
- It can be useful to point out the challenges and advantages of being on a sled versus other modes of travel. This can help encourage sledheads to get off and walk around, dig a quick pit, or even talk to other backcountry travelers to gain information. I also think the TAR article is correct that the amount of terrain a rider can cover in a day is a huge asset to the forecasting/backcountry community.
- One article discussed the challenges of getting manufacturer's and travel boards to push the importance of avy education because they don't want to scare customers. This is an interesting point. I think there are some companies out there that we should pursue for sponsoring awareness days and potentially even level one courses. KLIM would be a great company to work with, as they are securely rooted in mountain riding culture. Polaris is an American snowmobile company that has been involved in sponsoring or loaning sleds to avalanche centers for a number of years; I wonder if they would expand this support if approached? Video companies? It seems like TGR has made a small foray into some avy education, and I wonder if they would step up to do some more for snowmobilers? Getting the Slednecks production company on board would garner a lot of legitimacy in the snowmobile community. Could the AAA education committee take on the responsibility/task of developing these relationships?

In closing, I am very excited that we are looking at this stuff. I would love to continue to be involved and increase my involvement where appropriate. Let me know what I can do!

Ryan Hutchins-Cabibi is an outdoor educator who balances his love of wilderness with a healthy dose of motorsports. He grew up in New Hampshire where he spent winters skiing, snowboarding, and snowmobiling. Ryan is currently a program supervisor at NOLS Rocky Mountain where he begs to go on snowmobile food drops for winter courses. He teaches avalanche awareness and Level 1 courses to skiers and snowboarders and has taught snowmobile avy awareness courses for Fremont County SAR and local snowmobile groups in Wyoming. Ryan's best face shots come from leaning over and counter-steering a sled in fresh powder. ❄️

