

Calculated Risk

Factors to consider when riding in the backcountry

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Snowmobiling in the mountains is risky business. Once a rider leaves the groomed trail and enters the uncontrolled and unpredictable realm of the backcountry, they immediately become exposed to a variety of hazards. One of the most inherent risks a backcountry rider confronts is the possibility of triggering or being caught in an avalanche since avalanche prone terrain often offers exciting riding opportunities. As a result, it is imperative that riders acquire proper skills to assess both the terrain and the snowpack - which will in turn facilitate better decision making when riding in the backcountry.

Avalanche risk depends on three separate elements - terrain, snowpack and people. In order to make an objective assessment of the avalanche hazard, one has to know if the terrain is capable of producing an avalanche. A slope must be steep enough to slide. Most avalanches occur on slopes between 35-38 degrees but avalanches can take place on slopes significantly more or less steep than these prime angles depending on snowpack stability. If a slope *is* steep enough to slide, it is imperative that all slopes, big or small, are evaluated before being ridden.

It is not uncommon for riders to trigger slides, get caught or even die in an avalanche while riding small slopes. Ironically, riders often get in trouble on small slopes while trying to avoid larger slopes due to high avalanche danger. Small slopes become especially dangerous when they are associated with terrain traps, i.e. abrupt transitions, gullies or creek beds. Even road cuts can produce dangerous avalanches. When riding in the backcountry, it is a safe practice to treat all steep slopes as if they could avalanche.

In conjunction with terrain assessment, snowpack stability must be evaluated. This is a very tricky component to backcountry riding. The snowpack is dynamic and constantly changing, making it extremely unpredictable. A quickly changing snowpack equates to high spatial variability, meaning one slope may be safe to ride while a similar slope nearby may be unstable.

The most obvious sign of an unstable snowpack is recent avalanche activity. It is not safe practice to ride next to a recent avalanche or on slopes with a similar aspect and elevation to slopes with recent avalanche activity. If avalanche activity is not present, obvious signs of instability such as cracking and collapsing are clear signs that the snowpack is unstable. If Mother Nature is not providing noticeable signs of instability, digging snowpits on the slope you plan to ride will provide a window into the snowpack's structure.

However, digging multiple pits is not always an easy task when the miles are adding up. If there is unstable snow, the probability of a snowmobiler triggering a slide increases with the amount of terrain a rider covers.

Once terrain and snowpack have been assessed, exposure to potential avalanche risk comes down to personal decision making, which can be the most challenging part of the equation. Paying attention to obvious signs of instability and following the three principal rules to backcountry travel - everyone carries rescue gear and knows how to use it, only one rider on the slope at a time and watching your partner from a safe location - will dramatically decrease the chances of an avalanche incident.

The bottom line is – if an avalanche incident has occurred mistakes have been made. Following the three principle rules of backcountry travel are essential, but the best approach to avalanche safety is to avoid avalanches all together. Taking an avalanche class and getting educated plays a vital role in avalanche safety. To get a complete schedule of avalanches classes visit mtavalanche.com.