

Risky Business

Factors to consider when riding in the backcountry

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Snowmobiling in mountains is risky business. Once a rider leaves the groomed trail and enters the uncontrolled and unpredictable backcountry he/she immediately becomes exposed to a variety of hazards. One of the inherent risks of backcountry snowmobiling is the possibility of triggering or being caught in an avalanche. Avalanche prone terrain often offers exciting riding opportunities, so it is imperative that riders acquire proper skills to assess both terrain and snowpack in order to 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 it is evaluated before being ridden.

It is common for riders to trigger slides, get caught and even die in an avalanche while riding small slopes. Riders often get in trouble on small slopes while trying to avoid larger slopes due to high avalanche danger. Small slopes are especially dangerous when they are connected to terrain traps like abrupt transitions, gullies, creek beds and road cuts. When riding in the backcountry, 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, constantly changing and extremely unpredictable. A quickly changing snowpack creates 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 to ride next to a recent avalanche or on slopes with a similar aspect and elevation to slopes with recent avalanche activity. Other obvious signs of instability are cracking and collapsing of the snowpack. 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 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, the most challenging part of the equation. Paying attention to signs of instability and following the three principal rules of 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 consequences of an avalanche incident.

The bottom line is that 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. The knowledge acquired in an avalanche class can play a vital role in avalanche safety. That knowledge can save your life and the life of your partners. To get a complete schedule of avalanches classes visit mtavalanche.com.