

Inside Stevens

Saturday, January 26, 2008

Avalanche Control

For those of you who might not know us, I would like to introduce myself Patty Morrison and my co-worker, Jon Andrews. Together we make up the Snow Safety team at Stevens Pass. We are also known as the Avalanche Forecasters and work within the Pro Patrol Department. Jon is the Lead Forecaster having twenty years experience. I'm in my ninth year in this role and fifteenth on the Stevens Pass Patrol.

Stevens Pass is a Class A avalanche area, which means over 200 slide paths within a ski area boundary and is the highest rating category in the U.S. The resort being on the crest to the Cascade Range has weather patterns that can change rapidly, which in turn, can rapidly change the condition of the snow pack creating potential avalanches or very different snow conditions from just moments before. Needless to say, these changes keep Jon and I on our toes and quite busy throughout the winter season. In fact, we have a very active avalanche control program that monitors hourly weather and snow pack information. We look at how the new snow and weather conditions are affecting the snow pack as to whether an avalanche hazard may be developing or not. We also conduct avalanche control mitigation, to help minimize the avalanche potential to the skiing public. We do this by using explosives as well as ski cutting techniques. Basically, we create controlled avalanches to remove the hazard.

During a storm cycle we try to predict the need for morning avalanche control the afternoon prior. On an avalanche control day, our day begins around 2:00am. First we start by the challenge of figuring out what side of the highway we are on, as we are driving to work. Many times we are ahead of the DOT plow drivers and at 2:30 am the road conditions can be at their worst. Once at work, (it's now 3:00am), we check the remote telemetry on the computer that gives us an hourly update on the temperatures, wind, and precipitation amounts. Then we hop on a snow mobile and head to the snow study plot to take manual weather and snow observations. We do this because over the years, we have learned that electronics are not perfect and manual snow and weather measurements are still the most reliable source of information. Even getting to the lower study plot can be a challenge if the snow is deep and the groomers aren't around that area yet.

From all the gathered information, we then make the final determination whether we should do avalanche control or not. If not, we call all the patrollers at their homes by 4:30am and tell them to show for work at 7:30 instead of 6:15am.

If we do choose to do control, we have the next four and a half hours to get the avalanche hazard taken care of so the lifts will be open by 9:00am. In those four and a half hours, we run to the explosives cash and load up six cases of hand charges weighing 2 pounds each. We then have a couple of patrollers come in and help arm the charges with caps and fuses. Next, one of us, usually Jon, will ride the snow mobile up to the top of Skyline lift and shoot an Avalauncher round into Bobby Chute, to see what kind of results we might get, (test shot). This also protects the patrollers that will be going under that slide path on their way to do their specific control routes. While Jon is up there, I will be organizing who will be doing what on the twelve control routes that need a minimum of two patrollers per route. By 6:15am, at least twenty-five of us will gather for a quick

meeting to talk about the avalanche hazard and weather conditions and then head to the make-up room to load up our packs with explosives. We are all usually on the lifts no later than 6:45am.

Once the actual avalanche control begins, the control teams will get to the top of the mountain via the lifts as well as hiking. Keep in mind; this can be a lot of work in deep snow conditions. Then through the use of explosives and ski cutting the teams mitigate the avalanche hazard. Along with doing our specific routes, Jon and I will keep track of how everybody is doing via radio communications. If all goes well, control will be done by 9:00am and the lifts are open to the public. However, there are times when the conditions are more challenging than others which can cause some delays. Or in the worst case scenario, we will even have areas closed for the day, because conditions were too severe to perform avalanche control.

Once we have decided that the avalanche hazard has been mitigated and skied around to see some of the avalanche results, Jon and I will head back to patrol base to wrap things up and start the paper work process. On a typical avalanche control day, we have been working non-stop for six and a half to seven hours. All in a days work...

Have a great day.

Patty Morrison
Avalanche Forecaster
Stevens Pass Pro Patrol