

## **GNFAC Avalanche Forecast for Mon Feb 22, 2010**

Good Morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Monday, February 22, at 7:30 a.m. **Bountiful Table**, in cooperation with the **Friends of the Avalanche Center**, sponsor today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

A strong ridge of high pressure has moved into southwest Montana creating clear, calm, and cold conditions. Currently temperatures are in the single digits above or below zero with ridgeline winds picking up to 15-25 mph out of N-NW. This dominating ridge of high pressure will remain over our area for the remainder of the day making for clear skis and beautiful winter weather.

### Snowpack and Avalanche Discussion

*The Bridger Range, Northern Madison and northern Gallatin Ranges, the mountains around Cooke City and the Washburn Range:*

It has taken some time, but the snowpack in the Bridger Range has finally started to relax and adjusted to the heavy load it received throughout this past week. Over the past seven days the Bridger Range received nearly three feet of snow equaling close to three inches of water while the northern Gallatin and Madison Ranges along with the mountains around Cooke City picked up twelve to fifteen inches of snow equaling just over an inch of water. This significant difference in load created a significant difference in the behavior of the snowpack. In the Bridger Range, deep slab avalanches failed on facets near the ground leaving behind a swath of destruction and large crown faces 4-6 feet deep ([photo](#)). In the mountains around Cooke City and the northern Gallatin and Madison Ranges, avalanches failed on near surface facets and surface hoar 1 to 2 feet below the surface making for smaller but still dangerous avalanches.

Over the past few days the snowpack has time to adjust balancing out the differences between these different areas. In the Bridgers buried facets remain a problem as they do in the northern Gallatin and Madison ranges and mountains around Cooke City. The Bridger Rang also has a layer of buried surface hoar 1.5 to 2 feet below the surface giving the Bridgers near surface instabilities similar to the mountains around Big Sky and Cooke City. On Thursday I skied in Beehive Basin where I witnessed recent avalanche activity and experienced cracking and collapsing on steep SE facing slopes. During the same day two human triggered avalanches took place on Wilson Peak that also occurred on SE facing slopes. Yesterday, the Yellowstone Club Ski Patrol sent in a picture of a human triggered avalanche that occurred near Cedar Mountain.

Doug and I skied in the Bridger Range yesterday where we examined a large human triggered avalanche near Flathead Pass that happened this past Friday. We also found a layer of buried surface hoar to be sensitive and reactive during stability tests ([video](#)). With ridgetop winds starting to pick up out of the W-NW, wind loading will start to add additional stress to these buried weak layers. Given the similarities of the snowpack in the northern ranges, a similar approach and level of caution should be applied when skiing or riding in these different areas. Although the snowpack has had a few days to rest, instabilities still exist and human triggered avalanches remain probable. For today the avalanche danger is rated **CONSIDERABLE** on all slopes steeper than 35 degrees and **MODERATE** on all slopes less than 35 degrees.

*The southern Madison, southern Gallatin Ranges and the Lionhead area near West Yellowstone:*

The snowpack in the southern ranges is uncharacteristically shallow for this time of year. This is good and bad for riding conditions. It is good in the sense that there is not a huge load sitting over weak facets near the ground. This has allowed skiers and riders to test larger slopes without many problems. However, a shallow snowpack means a weaker snowpack and not everyone has tested slopes successfully. Last Tuesday a snowmobiler was caught and buried in the Lionhead area when he triggered an avalanche that failed on facets that formed over a shallow rock band ([video](#)). Surface hoar 1.5 to 2 feet below the surface continues to show up in snowpits and produces clean shears with light force during stability tests. This intermittent weak layer will not be found on all slopes, but will most likely show up on shady slopes protected from sun and wind ([photo](#)). As more skiers and riders test bigger slopes, the odds of losing the gamble continue to rise. For today, human triggered avalanches are probable on all slopes steeper than 35 degrees and the avalanche danger is rated **CONSIDERABLE**. The avalanche danger is rated **MODERATE** on all slopes less than 35 degrees.

Doug will issue the next advisory tomorrow morning at 7:30 a.m. If you get out in the backcountry let us know what you find. You can reach us at 587-6984 or email us at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com).

## **Avalanche Education**

### **1. Bridger Bowl**

AAI Level 2 Avalanche Course - Monday, February 22<sup>nd</sup> to Thursday, February 25<sup>th</sup>

[www.americanavalancheinstitute.com](http://www.americanavalancheinstitute.com)

### **2. Moonlight Basin**

Comprehensive avalanche awareness class - Thursday, March 4<sup>th</sup> to Saturday, March 6<sup>th</sup>

[events@moonlight.com](mailto:events@moonlight.com) or 406-993-6026