

## GNFAC Avalanche Forecast for Sun Feb 7, 2010

Good Morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, February 7, at 7:30 a.m. **K2 Café & Deli** in cooperation with the **Friends of the Avalanche Center**, sponsor today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

In the past 24 hours 2-3 inches of new snow fell in the Bridger Range while the rest of the advisory area picked up an additional trace to one inch. Winds have been relatively light out of the W-NW blowing at 5-10 mph. Today, a weak ridge of high pressure will bring mostly sunny skies and calm conditions to southwest Montana. Temperatures will remain average for this time of year with highs in the upper 20's and lows in the teens. The ridge will begin to break down this evening, bringing a slight chance of snow showers tonight into Monday.

### Snowpack and Avalanche Discussion

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

The snowpack in the southern mountain ranges resembles a game of Jenga; pull out the wrong piece and it may all come crashing down. Currently it is difficult to know exactly which piece is holding the slope together and which piece can cause catastrophic failure. With an abundance of weak facets near the ground and a slab 2-4 feet thick balancing precariously over them, the formula for a game ending scenario has been created. To make matters more insecure, a patchy layer of surface hoar now sits 1-2 ft below the surface and has the potential to initiate fractures and produce large avalanches.

As the slab sitting over the existing weak layers becomes thicker, finding a trigger point that will produce an avalanche becomes more difficult, but the risk of starting and being caught in an avalanche still remains. The raising of confidence that accompanies improving stability can often be misleading, and may guide backcountry enthusiasts into dangerous and harmful situations. The safest approach during these conditions is to rely on safe backcountry practices that leave the widest possible margin for error. Careful terrain evaluation, clear communication between group members and good judgment all play a crucial role in maximizing the odds of staying safe in the backcountry.

Today, some slopes may stay in place under the weight of a skier or rider, but many will not. For this reason, slopes steeper than 35 degrees have a **CONSIDERABLE** avalanche danger. On slopes less than 35 degrees the avalanche danger is rated **MODERATE**.

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

The snow keeps piling up in the northern ranges and mountains around Cooke City. In the past 48 hours 7 inches of new snow has fallen in the Bridger Range and mountains around Cooke City with 2-4 inches falling in the northern Gallatin and Madison Ranges. This gradual process of adding a few inches here and a few inches there is exactly the kind of loading the snowpack enjoys. The one gray area that comes with incremental loading is it becomes difficult to know exactly how much weight has been added to the snowpack over an extended period of time. It would be no surprise to see avalanches if 12 inches of snow fell in a day, but would it be likely to see avalanches if 12 inches fell over a week? The answer is-maybe. This depends heavily on the snowpack structure. Because we have weak faceted snow making up the base our snowpack, the structure is less than ideal

making the likelihood of avalanches much greater.

Yesterday, my partner and I skied into the northern Madison Range and found a less than perfect snowpack ([video](#)), but one that seems to be on the mend. Facets near the ground were still producing shears on stability test, however these shears were not as clean as they were two weeks ago and were taking much more force to initiate. We did not experience any signs of instability such as cracking and collapsing and we saw no recent signs of avalanche activity. This does not mean you can throw caution to the wind. Yesterday in Cooke City and observer witnessed a human triggered avalanche that took place on a steep north facing slope ([photo](#)). Although this avalanche wasn't huge it is a perfect example that instabilities still exist and human triggered avalanches are possible. For this reason the avalanche danger is rated **MODERATE**.

I 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).

### **Monday, February 8: MONTANA ALE WORKS BENEFIT DINNER**

Mark your calendars: Montana Ale Works is hosting a benefit dinner for the Friends of the Avalanche Center on Monday evening, February 8<sup>th</sup>. Chef Roth Jordan has assembled an amazing five course menu themed "Mountains of the World" with foods from Chile, Montana, France, New Zealand and Germany. Dinner is limited to 40 seats with the first course served at 6:30 p.m. Tickets to this event are \$75, all inclusive, and available at Montana Ale Works. More information is available on our [calendar](#) or by calling 587-7700.

### **8<sup>th</sup> ANNUAL KING AND QUEEN OF THE RIDGE**

The 8<sup>th</sup> Annual King and Queen of the Ridge will be held at Bridger Bowl on Saturday, February 13<sup>th</sup>. ALL proceeds go to the Friends of the Avalanche Center who use the money to promote avalanche education in southwest Montana. Last winter we taught 62 classes reaching over 4,300 people. You can help raise money to continue this education in 2 ways:

- 1). Get pledges and hike the ridge. You don't have to do 20 laps - you can get flat pledges and hike just once! Or you can test your mettle and try and break John Yarrington's record of 27 laps in 5 hours.
- 2). Sponsor someone. If you don't have someone to sponsor, consider sponsoring Mark, Eric or Doug since we'll be hiking for dollars.

You can go to [http://www.bridgerbowl.com/events/view\\_event/15/](http://www.bridgerbowl.com/events/view_event/15/) for more information and registration forms.

### **Avalanche Education**

**More information about these classes are listed at:** <http://www.mtavalanche.com/workshops/calendar>

#### **1. Cooke City Fire Hall**

1 Hour Avalanche Awareness Class - Saturday, February 13<sup>th</sup> 6:30 pm to 7:30 pm

#### **2. Bridger Bowl**

AAI Level 1 Avalanche Course - Friday, February 19<sup>th</sup> to Sunday, February 21<sup>st</sup>

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

### **3. 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)

### **4. 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