

## **GNFAC Avalanche Advisory for Mon Feb 1, 2010**

Good Morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Monday, February 1, at 7:30 a.m. **Big Sky Ski Patrol**, 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 cold winter storm system has impacted southwest Montana depositing 8-10 inches of new snow in the Bridger Range with 5-7 inches falling throughout the rest of the advisory area. Winds have picked up overnight and have been constant along the ridgetops at 20-30 mph out of the W-NW. Snow and winds will decrease throughout the day and temperatures will be on the cooler side with highs in the twenties and lows in the single digits.

### Snowpack and Avalanche Discussion

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

Soft and favorable riding conditions continue to lure skiers and snowmobilers into the backcountry like moths to a flame. Unfortunately, a cohesive slab 1-3 feet thick sitting over weak faceted snow near the ground along with an active layer of surface hoar two feet below the surface has created dangerous avalanche conditions. What makes these conditions so dangerous is the slab is now strong enough to support a skier or snowmobiler in most areas creating a false sense of stability. These unstable and unpredictable conditions have been the culprit of many human triggered avalanches over the past week with latest being a snowmobiler triggered avalanche in the Lionhead area on Saturday.

Yesterday, Doug, Allan and I toured around the Hebgen Lake area and found plenty of weak and unstable snow. We dug a snowpit on an east facing slope at 9,000 ft and found weak sugary facets near the ground and a thin layer of surface hoar roughly two feet below the surface. During an ECT stability test we got both weak layers to fail and propagate simultaneously, a very bad sign. We also conducted a rutschblock test that failed on the surface hoar layer and produced a clean shear with a very low score ([see video](#)). These obvious signs of instability prompted us to ski the most conservative lines possible until we were clear from avalanche terrain. With 5-7 inches of new snow in the past 24 hours we can expect this weak and fragile snowpack to be pushed closer to the brink.

Today, a **CONSIDERABLE** avalanche danger exists on all wind loaded slopes and slopes steeper than 35 degrees. On slopes that have not received wind loading and are less than 35 degrees the avalanche danger is rated **MODERATE**.

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

Stability has improved in the mountains near Bozeman and Cooke City, and many skiers and snowmobilers have found reasonably stable slopes and good riding conditions. With 8-10 inches of new snow in the Bridgers and 5-7 inches the northern Gallatin Range and mountains around Cooke City riding conditions will be excellent, but the possibility of triggering an avalanche remains very real. With winds blowing out of the W-NW at 25 mph along the ridgetops, areas of wind drifted snow will form quickly and will easily fail under the weight of a skier or rider. Although these pockets of instability may not be enormous they have the ability to knock you off your feet and drag you into rocks or trees. Another area of concern is a layer of buried facets that exists 2-3 ft below

the snow surface. This layer was responsible for a human triggered avalanche this past Thursday in the northern Bridgers. Although this layer may not be as active, the avalanches that do fail on this layer will be large and destructive.

Today, a **CONSIDERABLE** avalanche danger exists on all wind loaded slopes while a **MODERATE** avalanche danger exists on all non wind loaded slopes.

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).

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

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 myself 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 CALENDAR**

#### **1. Bozeman**

Advanced Avalanche Workshop: The Friends of the Avalanche Center and ASMSU Outdoor Recreation are offering an Advanced Avalanche Workshop on the evenings of February 3 & 4 with a field day on Saturday, February 6. ADVANCED REGISTRATION IS REQUIRED. For more information or to register contact: [friendsofgnfac@gmail.com](mailto:friendsofgnfac@gmail.com)