

## **GNFAC Avalanche Advisory for Thu Feb 9, 2012**

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Thursday, February 9 at 7:30 a.m. Montana Ale Works, in cooperation with the Friends of the Avalanche Center, sponsor today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Winds this morning were blowing 20-30 mph from the W and NW with temperatures in the teens F. Today temperatures will warm into the mid 20s F and winds should calm a little blowing 10-20 mph from the W and NW. Skies will be a mix of sun and clouds and some snow should fall tonight. By tomorrow morning, 1-3 inches should fall mostly in the mountains near Bozeman. Since past weather is often a better predictor of future weather than long range models, check out a comparison of Bridger Range snowfall to other low snowfall years ([graph](#)).

### Snowpack and Avalanche Discussion

The southern Madison and southern Gallatin Ranges, the Lionhead area near West Yellowstone and the mountains around Cooke City:

When the danger is rising, assessing stability is relatively easy. When the danger is decreasing it becomes more difficult especially when the snowpack contains persistent (i.e. long-lasting) layers of faceted snow. Stability can vary drastically between similar slopes and sometimes across the same slope. This variability has increased during the last week.

Yesterday, a regular observer near Cooke City descended a low angle slope with 6 ft of snow. Further down the slope where it steepened, he discovered the snowpack became 3 ft deep. It had a 2 ft thick slab resting on 1 ft of very weak depth hoar. He got off that slope as quickly as possible and felt lucky not to have triggered an avalanche. Without the stress of new snow for the last 6 days, avalanches have become more difficult to trigger, and riding in avalanche terrain requires very careful stability evaluations. Additionally, increased winds have likely formed shallow wind slabs near ridgetops. Triggering one of these fresh wind slabs could trigger a much larger avalanche. Today variable avalanche conditions exist, but overall the avalanche danger is rated [MODERATE](#).

The northern Madison and Bridger Ranges:

Fewer avalanches have occurred in the mountains near Big Sky and Bozeman than mountains further south because there has been less snowfall thus less stress on the snowpack. In many places, cohesive slabs rest on weak faceted snow. While avalanches are not likely, this structure makes human triggered avalanches possible. On Cedar Mountain on Monday, Karl's stability tests did not produce unstable results but he and his partners avoided steep terrain because the snow structure made it possible to trigger an avalanche. Increased winds have likely formed shallow wind slabs near ridge tops. Today slopes steeper than 35 degrees or wind loaded slopes have a [MODERATE](#) avalanche danger. Less steep slopes lacking a wind load have a [LOW](#) danger.

The northern Gallatin Range:

In the northern Gallatin Range, especially in Hyalite Canyon, the snowpack is more stable than other areas. I found stable conditions on Elephant Mountain near Mt Blackmore on Tuesday (video), and many others found the same and skied many steep lines during the last week. The combination of increased winds and a few inches of powder snow has likely formed shallow wind slabs near ridgetops. These wind slabs are the primary avalanche concern making the avalanche danger MODERATE on wind loaded slopes steeper than 35 degrees and LOW on all others.

I will issue the next advisory tomorrow morning at 7:30 a.m. If you have any snowpack or avalanche observations, drop us a line at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com) or call us at 587-6984.

## FUNDRAISING

Thanks to all who attended the 4<sup>th</sup> Annual Montana Ale Works dinner and a special thanks to Chef Roth, Albert, and the entire staff at Ale Works. It was a great evening with great food and drinks that raised \$2100 dollars.

### 10th Annual King and Queen of the Ridge

The 10th Annual King and Queen of the Ridge ski/hike-a-thon will be held at Bridger Bowl this Saturday, February 11. 100% of the proceeds go to the Friends of Gallatin National Forest Avalanche Center to promote avalanche education in southwest Montana. Kids and families are encouraged to hike too! You can help raise money two 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!
2. Sponsor someone. If you don't have someone to sponsor, consider sponsoring the GNFAC since we'll be hiking for dollars. Email us at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com) with a pledge!

Go to [http://bridgerbowl.com/events/view\\_event/81/](http://bridgerbowl.com/events/view_event/81/) for more information and registration forms.

PRIZES INCLUDE: 4frnt skis, two pair of Schnee's Hunter boots, three Mystery Ranch backpacks and three pair of Oboz shoes.

## EDUCATION

### Bozeman

FREE 1-hour Avalanche Awareness at REI on Thursday, February 16 at 6:30 p.m. For more information call REI at 406-587-1938.