

GNFAC Avalanche Advisory for Tue Feb 7, 2012

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Tuesday, February 7 at 7:30 a.m. **Gallatin Valley Snowmobile Association** and **Citizens for Balanced Use**, in cooperation with the **Friends of the Avalanche Center**, sponsor today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Yesterday, a few flurries, clouds and colder temperatures were a reminder that winter has not completely forsaken us. This morning, mountain temperatures are in the high single digits as light winds blow out of the southeast. Today, skies will become mostly sunny, temperatures will rise into the high teens and southeast winds will blow 10-20 mph.

Snowpack and Avalanche Discussion

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

There are always zones of thin snow cover, but this season they have greater significance since we are able to trigger avalanches from these shallow spots. Deep in the snowpack near the ground are weak, faceted crystals draped like a blanket over most slopes. These facets link thin slopes to thicker ones. More importantly, they allow us to trigger avalanches from thin spots where our body weight adds enough stress to initiate cracks, collapse the weak layer and propagate fractures across the slope. Eric unintentionally triggered a large avalanche on Friday outside Cooke City on Mt. Abundance when this happened ([video](#), [photo](#)). On Sunday, I investigated a large natural avalanche on Lionhead, likely triggered from a thin spot also ([video](#), [photo](#)).

It is not always obvious where these thin zones are, but as the snowpack adjusts to its load signs of instability are not obvious and we can be fooled into thinking slopes are more stable than they really are. It's tricky and dangerous times. Multiple people have been highmarking or skiing steep slopes without triggering a slide, but it would be wrong to confuse luck with a skilled assessment.

The fact that Eric got surprised with the instability is enough for me to be a little extra conservative. Recent avalanche activity and a persistent, widespread weak layer add seriousness to our decisions. Furthermore, some slopes in the southern Madison Range are plagued by a layer of feathery surface hoar crystals buried a foot deep creating instability too. For today, the avalanche danger is rated **CONSIDERABLE** on slopes steeper than 35 degrees and **MODERATE** on less steep. A Moderate rating is not a green light; it means triggering avalanches is still possible.

The Bridger, northern Madison and northern Gallatin Ranges:

No new snow and no recent wind-loading is allowing the snowpack to stabilize in our northern mountains. Every day without a load is another day of deflating avalanche danger. However, because buried facets underlie many slopes, it can only deflate so much and slopes with layers of weak snow topped with a denser slab could still avalanche. Yesterday, skiers on Mt. Ellis found this weak snow surviving, as did Karl near Cedar Mountain. Slopes steeper than 35 degrees or any slope with a hard wind slab has a **MODERATE** avalanche danger since they are susceptible to avalanching from a human-trigger. Less steep slopes without a wind slab have a **LOW** avalanche danger.

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 or call us at 587-6984.

FUNDRAISING

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 with a pledge!**

Go to http://bridgerbowl.com/events/view_event/81/ for more information and registration forms.

PRIZES INCLUDE: 4 front 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.