

## GNFAC Avalanche Forecast for Fri Feb 10, 2012

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Friday, February 10 at 7:30 a.m. A Montana FWP Recreation Trails Grant sponsors today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Early yesterday most places received a dusting of snow. Near Cooke City 2-3 inches of snow fell with amounts up to 6 inches reported at higher elevations. Winds have been generally calm, blowing 10-15 mph this morning from the western half of the compass with some gusts in the 20's. Temperatures were in the high teens F and should climb into the mid 20s F today. Winds shouldn't change much and snowfall today will produce 2-4 inches by tomorrow morning. The weather pattern for the next few days looks promising with calm winds and light snowfall that could slowly improve skiing and riding conditions.

### Snowpack and Avalanche Discussion

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

Now is a tough time. The snowpack has demonstrated its ability to produce avalanches including one seen yesterday in Sheep Creek near Cooke City ([photo](#)), but avalanche activity has subsided after nearly a week with no new snow.

- The tricky part: The odds of triggering an avalanche vary from slope to slope especially near Cooke City. Some slopes will be covered with tracks while others may produce an avalanche.
- Scary situation: The snowpack has a history of producing avalanches after receiving just a few inches of new snow.
- Two basic snowpack structures: In one case a supportable slab rests on weak facets in the middle of the snowpack. In the other a supportable slab rests on weak depth hoar closer to the ground. In both cases, triggering an avalanche usually requires finding a spot where the slab is slightly thinner and you can impact the weak layer. These spots can be near the bottom of a slope, on the edges of a slope, or even in the middle near rocks or trees.

The snowpack has been teetering near its breaking point. With a little snow yesterday and a little more coming today, it's a good time to be conservative. The odds of triggering an avalanche are difficult to assess, but we know these are dangerous avalanche conditions requiring careful stability evaluations and conservative decisions. For today, the avalanche danger is [CONSIDERABLE](#) on slopes steeper than 35 degrees and [MODERATE](#) on less steep slopes.

The northern Madison and Bridger Ranges:

The primary reason the avalanche danger is lower in the northern Madison Range and the Bridger Range is that these areas have received less snow in recent weeks. With less snow there have been fewer avalanches. Unfortunately most slopes have a slab of snow (usually 1-2 ft thick) resting on small, near surface facets which rest on depth hoar. See Doug's [video](#) last week from Saddle Peak which is still relevant today. On Monday on Cedar Mountain near Big Sky, Karl and his partners avoided steep terrain even though they got stable results in stability tests. We don't base decisions entirely on stability tests, and they made decisions based

on the snowpack structure. This structure remains unchanged, and human triggered avalanches are possible. For today, the avalanche danger is [MODERATE](#) on slopes steeper than 35 degrees and [LOW](#) on less steep slopes.

#### The northern Gallatin Range:

In the northern Gallatin Range, especially in Hyalite Canyon, there has been little snow in the last week and the snowpack is generally stronger. I found stable conditions on Elephant Mountain near Mt Blackmore on Tuesday ([video](#)). Many others found the same and skied steep lines during the last week. Isolated spots may have shallow, unstable wind slabs; otherwise generally safe avalanche conditions exist and the avalanche danger is [LOW](#).

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](#)

##### TOMORROW: 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.