

## **GNFAC Avalanche Advisory for Sun Jan 15, 2012**

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, January 15 at 7:30 a.m. This advisory is sponsored by Montana Ale Works in partnership with the Friends of the Avalanche Center. This advisory does not apply to operating ski areas.

### Mountain Weather

Warm and windy conditions are currently in place ahead of an approaching cold front. At 4 am this morning winds are blowing steady at 25-35 mph out of the WNW with gusts reaching into the 50s. Mountain temperatures are in the mid to high 20s under mostly clear skies with the exception of Cooke City where a 1-2 inches of snow has fallen overnight. A significant change in weather will take place as the day progresses. A cold front will arrive by early afternoon creating mostly cloudy skies, falling temperatures and an increasing chance of snow showers. By tomorrow morning temperatures will be in the single digits and 2-4 inches will likely accumulate in the mountains.

### Snowpack and Avalanche Discussion

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

Today, triggering an avalanche will be like the Giants beating the Packers – it's not highly likely but it is possible. Can you put a number – 1 in 10, 1 in 100, 1 in 1000 – on your odds of triggering a slide? No. But there are a few simple decisions that can be made to help stack the odds in your favor and keep the chances of triggering a slide to a minimum.

1. Stay off slopes that have received wind deposited snow, most specifically, upper elevation slopes below ridelines or slopes on the leeward side of sub-ridges. These areas likely have a thick cohesive slab resting over weak faceted snow. These wind slabs, whether new or old, can propagate a fracture and produce an avalanche ([video](#)).
2. Avoid slopes steeper than 35 degrees. While steep slopes offer some of the best riding opportunities, they are also the most likely to produce an avalanche.
3. Carefully evaluate shallow and rocky terrain. These areas usually have variable snow depths, wind slabs and lots of potential trigger points.

One factor that makes stability assessment difficult is conditions vary widely from slope to slope. Yesterday, Mark and I rode into Cabin Creek and Tepee Basin in the southern Madison Range. We received unstable results during stability tests on one slope, while another appeared to be more stable. I found similar conditions around Buck Ridge on Friday ([photo](#)). Also, skiers outside of Cooke City triggered a small slide on a SE facing slope and reported cracking and collapsing yesterday, obvious signs of instability.

Hyalite Canyon deserves special mention because it has more stable conditions than other areas. However, recent wind slabs and a layer of near-surface facets 2 feet below the surface could produce avalanches under the weight of a skier or rider ([video](#)).

Although the odds of triggering an avalanche have decreased over time, the weak structure of the snowpack continues to make human triggered avalanches 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 have any snowpack or avalanche observations, drop us a line at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com) or call us at 587-6984.

#### Beacon Parks

The Friends of the Avalanche Center installed a Beacon Training Park outside West Yellowstone last Friday. It's located south of town on the main snowmobile trail. Stop by and do a quick practice before heading off into the mountains!

#### Events/Education

##### Bozeman

[20/20 Hindsight - Lessons from recent accidents](#). Tuesday, January 17th, 6:30-7:30 p.m. at Montana Import Group

##### Cooke City

[1-hr Avalanche Awareness Lecture](#). Saturday, January 14, 5-6:00 p.m. at Cooke City Community Center.

##### Cody, Wyoming

[Snowmobiler Introduction to Avalanches with Field Course](#). Lectures on Saturday, January 14 at Mountain Valley Motorsports with an all day field session near Cooke City on Sunday, January 15. Advanced registration IS REQUIRED.

##### Great Falls

[1-hr Avalanche Awareness Lecture](#) Thursday, January 19<sup>th</sup>, 7-8 pm at Greenup Performance

##### Billings

[Snowmobiler Introduction to Avalanches with Field Course](#). Lectures on Tuesday, January 24 from 6-9 p.m. at Hi-Tech Motor Sports with an all day field session in Cooke City on Sunday, Jan 29. PRE-REGISTER BY JAN 23 at Hi-Tech!! Register with Sharon at 406-652-0090; [hitech@hi-techmotorsports.com](mailto:hitech@hi-techmotorsports.com).