

GNFAC Avalanche Advisory for Sat Jan 14, 2012

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Saturday, January 14 at 7:30 a.m. This advisory is sponsored by Gallatin County Search and Rescue in partnership with the Friends of the Avalanche Center. This advisory does not apply to operating ski areas.

Mountain Weather

This morning in the northern areas near Bozeman and Big Sky, mountain temperatures were in the low 20s F and winds were blowing 20-40 mph from the W. Further south near West Yellowstone and Cooke City, temperatures were in the low teens F and winds were blowing 10-20 mph from the SW. Today will warm into the high 20s F and winds will increase ahead of an approaching cold front. Next week may get snow every day. While no snow will fall by tomorrow morning, we will see Tom Brady and the Patriots crush the Broncos this evening.

Snowpack and Avalanche Discussion

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

During the last two weeks, avalanche conditions have become more variable, and some slopes are more prone to producing avalanches than others. Slopes that are more likely to produce an avalanche have:

- Wind deposited snow from Tuesday night's storm or other wind slabs. These wind slabs, whether new or old, can help propagate a fracture in the weak snow underneath them. Karl describes this situation in a [video](#) from the Bridger Range. Eric found a similar situation along Buck Ridge just south of Big Sky yesterday ([photo](#)), and snowmobile guides also found it near Cabin Creek ([photo](#)).
- Steeper slope angles near 38 degrees. With each increasing degree of steepness, the odds of triggering an avalanche increase. The difference between a 33 degree slope and a 37 degree slope is huge even though both are avalanche terrain.
- High elevation, rocky slopes usually above treeline. These areas usually have variable snow depths, wind slabs, and lots of potential trigger points.

Although conditions are variable, the snowpack throughout the advisory area is about 3-5 feet deep. In all cases where a slab is present, stability tests are producing clean fractures about 15-30 inches deep (in the middle of the snowpack). These tests are breaking on either surface hoar, a thin layer of near-surface facets near an ice crust, or on top of a thick layer of depth hoar.

Hyalite Canyon deserves special mention because it has more stable conditions than other areas. Recent wind slabs could produce an avalanche, and some slopes have a layer of near-surface facets that could also produce an avalanche ([video](#)). However, very few avalanches have occurred in this area, and skiers have been able to find many stable slopes. These facts, though, are not a free pass to ski any slope without careful evaluation.

Because the snowpack is not stressed by recent snow, the odds of triggering an avalanche have decreased. Unfortunately the layering of the snowpack has all the ingredients for an avalanche and human triggered avalanches are definitely possible. Today the avalanche danger is rated [**MODERATE**](#).

Eric 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.

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 19th, 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.