

GNFAC Avalanche Advisory for Wed Dec 28, 2011

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, December 28 at 7:30 a.m. This advisory is sponsored by **Planet Natural** and **Lone Peak Brewery**. This advisory does not apply to operating ski areas.

Mountain Weather

This morning is warm and windy with fresh snowfall in the southern mountains. Four inches has fallen near Cooke City with 1-2 inches accumulating from the Yellowstone Club to West Yellowstone. Mountain temperatures are in the mid to high 20s as westerly winds average 30-40 mph with gusts hitting 50 mph. The jet stream will keep winds strong and create favorable dynamics for snowfall. By morning there could be 1-2 inches in the northern mountains and 6-8 inches in the southern ranges.

Snowpack and Avalanche Discussion

The Madison and southern Gallatin Ranges, the Lionhead area near West Yellowstone:

The entire Madison Range, southern Gallatins and mountains outside West Yellowstone have a weak snowpack. From the Lionhead area to slopes at Bacon Rind/Taylor Fork all have a snowpack of sugary, loose snow **capped with one or two layers of surface hoar**. The grain type is irrelevant. The avalanche concern is that there are multiple weak layers that will break with a new snow load. The mountains surrounding Big Sky are not much better. We found weak snow structure in Beehive Basin on Monday as we investigated Friday's skier triggered slide (**video**) (**photo 1**, **photo 2**). Since it is still possible to trigger avalanches throughout southwest Montana, the avalanche danger is rated **MODERATE** on all slopes. In the next 24 hours more snowfall is expected in the southern mountains which could quickly elevate the avalanche danger to **CONSIDERABLE**.

The mountains around Cooke City:

The snowpack is relatively strong in the mountains around Cooke City. Faceted grains near the ground are bonding together and our primary weak layer would be close to the surface: small-grained facets that may be sitting on an ice crust, especially on southerly aspects. Additionally, new snow from last night will be blown into wind pillows. More snow is predicted which would bump up the danger, so be mindful as you ride or ski in the snowy weather. For today, the avalanche danger is **MODERATE** but could certainly rise to **CONSIDERABLE**.

The Bridger Range and northern Gallatin Range:

In the northern Gallatin Range, especially in Hyalite Canyon, the snowpack is strong and has good stability. While there are still islands of weak snow, like Mount Ellis where Eric found 85 cm of facets, avalanche activity and other signs of instability have been minimal since the previous storm seven days ago. Slopes that were wind-loaded and have thick drifts could still be triggered, but overall the snowpack is mostly stable.

The Bridger Range also has a snowpack that is mostly stable, but for a very different reason—it has thin coverage of loose, faceted grains, but no slab on top of it. The Bridger Bowl Ski Patrol dropped a huge cornice yesterday without triggering an avalanche, a good sign of stability on that specific slope, but overall buried facets are not to be trusted. For today, any wind-loaded slope will have a **MODERATE** danger while all other slopes have a **LOW** danger.

SPECIAL NOTE: The difference between a Moderate and Considerable danger is substantial. During Considerable danger it becomes possible to find natural avalanche activity while human triggered avalanches are likely. “Likely” is not a good thing with avalanches. If you were “likely” to win the lottery, you would play every day.

Mark 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.

EVENTS/EDUCATION

To check out all our education programs: <http://www.mtavalanche.com/workshops/calendar>

BOZEMAN

[Women's 1-hour Avalanche Awareness Lecture.](#) Wednesday, January 4, 6:30- 8 p.m. at REI.

[Snowmobiler Introduction to Avalanches with Field Course.](#) Lectures on Saturday, January 7, with an all day field session Sunday, January 8. Advanced registration IS REQUIRED.

[1-hr Avalanche Awareness Lecture.](#) Wednesday, January 11, 6:30-7:30 p.m at REI.

BIG TIMBER

[1-hr Avalanche Awareness Lecture.](#) Tuesday, January 10, 7-8 p.m at Big Timber High School.

HELENA

[1-hr Avalanche Awareness Lecture.](#) Thursday, January 12, 6:30-8:30 p.m at Exploration Works.

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.