

## **GNFAC Avalanche Forecast for Wed Dec 21, 2011**

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, December 21 at 7:30 a.m. This advisory is sponsored by **Mystery Ranch** in partnership with the **Friends of the Avalanche Center**. This advisory does not apply to operating ski areas.

### Mountain Weather

It started snowing in the mountains around midnight which will continue today. At 6 a.m. the Gallatin and Madison Ranges (Bozeman to West Yellowstone) are showing 5-6 inches of light powder with Cooke City getting 2-3 inches and the Bridger Range 1-2 inches. Mountain temperatures are in the teens with northwest winds averaging 10-15 mph and gusts into the 20s. Snowfall will end later today with an additional six inches falling at the higher elevations.

### Snowpack and Avalanche Discussion

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

**If the storm continues as predicted, the avalanche danger will rise. We have a weak snowpack and the new snow will likely be the first real test of its integrity.**

Throughout southwest Montana, this new snow is falling onto either a thin (<2 feet), weak snowpack made up almost entirely of facets, or a thicker snowpack (>2 feet) with two weak layers: facets buried a few inches under the surface and another near the ground.

In the Bridger Range we've gotten reports of a thin snowpack consisting of facets. Skiers around [the Throne](#) and Flathead Pass found lots of weak snow that will quickly become unstable as it gets loaded.

In the Madison and southern Gallatin Ranges from the mountains around Big Sky to West Yellowstone, the snowpack is also thin and weak. I was in Beehive Basin north of Big Sky on Sunday, to the south on [Buck Ridge](#) yesterday and in the Taylor Fork and Bacon Rind areas last week. I dug many snowpits and found large-grained, unsupportable facets throughout, which explained why I was sinking to ground every time I stepped out of my skis or off my snowmobile.

In the mountains around Cooke City and the northern Gallatin Ranges, the snowpack is three feet deep in most areas. A layer of facets near the ground is slowly gaining strength, but should not be discounted. Another prominent weak layer in the snowpack is small-grained faceted snow or surface hoar found a few inches under the snow surface. Yesterday a skier triggered a small slide on a near surface weakness outside Cooke City ([photo](#)).

The snowpack will not tolerate much of a snow load. Although the current (6 a.m.) 4-6 inches of 5% density snow is not enough to tip the scales, continued snowfall today will ripen the slopes for avalanches. Right now the avalanche danger is rated **MODERATE**, but another 4-6 inches would ramp up the danger towards **CONSIDERABLE** and possibly even **HIGH** if we get an especially robust snowfall.

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](mailto: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.