

## **GNFAC Avalanche Forecast for Wed Nov 30, 2011**

Good morning. This is Doug Chabot with early season avalanche information issued on Wednesday, November 30 at 7:30 a.m. This bulletin is sponsored by Montana Fish, Wildlife and Parks. Please remember that uphill traffic is not allowed at Big Sky or Moonlight Basin Ski areas. Uphill traffic is permitted at Bridger Bowl, but backcountry snow conditions exist.

### Mountain Weather

Over the last few days mountain temperatures have been warmer than average and reached into mid to high 30s as westerly winds blew 10-25 mph. Always ahead of the curve, Cooke City got two inches of snow last night. This afternoon will be stormy and remind us that winter has not forsaken us. Arriving from the northwest, a cold front will produce snow in the mountains. By late tonight I'm expecting six to eight inches of new snow with temperatures dropping into the single digits to low teens. Winds will increase from the northwest today with gusts reaching 40-50 mph tonight. Tomorrow looks to be cold and partly cloudy.

### Snowpack and Avalanche Discussion

#### The northern Gallatin Range and mountains around Cooke City:

Only two ranges in our forecast area have a deep snowpack: the northern Gallatin Range and mountains around Cooke City, which both have three to four feet of dense, supportable snow. Unfortunately, it's all overlying a foundation of weaker, faceted crystals. Outside Cooke City last weekend we investigated a [snowmobiler triggered avalanche on Crown Butte](#) and a [natural slide on Fisher Peak](#). Both avalanches broke on a layer of unbonded, grainy snow. Dig a hole to the ground and you will find these loose crystals. With a similar snow structure, recent avalanche activity and poor stability test scores, if today's storm materializes I expect to see natural avalanche activity in both the northern Gallatin Range and mountains around Cooke City tomorrow. Even without new snow it would be possible to trigger an avalanche today, but with it, the likelihood of avalanches will only increase, especially on slopes with fresh wind drifts.

#### The Bridger, southern Gallatin and entire Madison Ranges:

The Bridger, southern Gallatin and entire Madison Ranges have [bony and irregular snow cover](#). Some slopes have dense, strong snow while others have layers of weak facets and a few are still dirt. Any new snowfall will make it harder to determine which is which. Yesterday my partner and I toured, hiked and kick-turned to and from [Sacajewa Bowl in the northern Bridger Range](#). The adjective "bony" may even be exaggerating how good it was. On one slope, all within a 100 foot traverse, we found dirt, dense wind pack and large facets. Without new snow, the chance of triggering a slide is minimal, but this will change quickly when we get snowfall. We will be forced to dig, or at least swipe our hand or poke our ski pole to the ground to determine if weak facets are underlying the storm snow, which is a potentially dangerous combination. Any "whumphs" or cracks underfoot or under track are a red flag that slopes steeper than 30 degrees are unstable.

Mark will issue the next bulletin on Friday morning.

We are one or two snow storms away from issuing daily advisories, which is when we'll include avalanche danger ratings. For now, any snowpack or avalanche information is especially valuable. If you get out, please drop us a line at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com) or leave us a message at 587-6984.

## EVENTS/EDUCATION

For more information and to sign up for the multi-day courses in Bozeman, Livingston and West Yellowstone, go here: <http://www.mtavalanche.com/education/classes/workshops>

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

### TONIGHT

Introduction to Avalanches with Field Course at MSU. Tonight and tomorrow evening lectures with a field course on Saturday, December 3. Advanced registration NOT required, but encouraged.

### BOZEMAN

1. Avalanche Awareness Lecture, Tuesday, December 6, 406 Brewery.
2. Avalanche Awareness Lecture, Wednesday, December 7, REI

### BILLINGS

Avalanche Awareness Lecture, Tuesday, December 6, Beartooth Harley.

### LIVINGSTON

Snowmobiler Introduction to Avalanches with Field Course. Wednesday, December 7, and Thursday, December 8 evening lectures with a field course on Sunday, December 11. Advanced registration IS REQUIRED.

### WEST YELLOWSTONE

Snowmobiler Introduction to Avalanches with Field Course. Thursday, December 15 all day lecture with a field course on Friday, December 16, <sup>and</sup> Thursday, December 8 evening lectures with a field course on Saturday, December 10. Advanced registration is NOT required, but encouraged.