

## **GNFAC Avalanche Advisory for Mon Dec 5, 2011**

Good morning. This is Eric Knoff with early season avalanche information issued on Monday, December 5th at 7:30 a.m. This bulletin is sponsored by Outlaw Partners and Alpine Orthopedics. 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

A ridge of high pressure sitting over the Pacific Northwest is producing a northerly flow over the region. As a result, cold-clear conditions exist over southwest Montana. Currently mountain temperatures are ranging from 5-15 below zero and winds are light out of NNW at 5-15 mph. Today, temperatures will hike into the low teens and winds will continue to blow out of the NNW at 5-15 mph. Dry and warmer conditions will remain over southwest Montana through Tuesday.

### Snowpack and Avalanche Discussion

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

The northern Gallatin Range has received more snow over the past few days than any other range in our forecast area. A total of .6 inches of [SWE](#) has fallen since Friday totaling close to six inches of snow. This new load will be adding stress to a layer of weak faceted crystals near the ground. Although recent reports have suggested that the pack in the northern Gallatin Range is slowly gaining strength, it is still set up to produce avalanches.

Avoiding steep slopes, specifically slopes that have been wind loaded, will be the best way to avoid triggering a slide.

The mountains around Cooke City have a similar structure to the northern Gallatin Range. Snow depths of 3-4 feet can be found on most slopes above 8,000 ft. Weak facets near the ground are located beneath a supportable 2-3 foot slab. Multiple human triggered avalanches in the mountains around Cooke City have shown that this snowpack structure is capable of producing avalanches ([photo](#)).

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

The best way to describe the snowpacks of the Bridger, Gallatin and Madison Ranges is variable. Yesterday, Doug and I traveled to the Lionhead area near West Yellowstone and were troubled by what we found. What was a thin but strong snowpack a little more than a week ago has been reduced to a collection of non-cohesive faceted crystals ([video](#)). Unfortunately, this seems to be the direction the snowpack is heading.

On Saturday I hiked around Bridger Bowl and found a similar set up. On the same day Mark traveled into the [Taylor Fork](#) area in the southern Madison Range and found a deeper snowpack, but one that still showed signs of weakness ([snowpit](#)). Without a significant load, the snowpack in these ranges continues to grow weaker, but not necessarily more unstable. This will all change when we get more snow.

For now, it's important to remember that thin snowpacks are often dangerous snowpacks. Not only are avalanches a legitimate concern, but buried objects such as rocks and stumps can also pose a serious hazard.

Doug will issue the next bulletin Wednesday morning. We will begin daily advisories with [danger ratings](#) when we get more snow. 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>

### BOZEMAN

1. Avalanche Awareness Lecture, Wednesday, December 7, REI.
2. Avalanche Awareness Lecture, Thursday, December 8, 406 Brewery.

### 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.