

## [GNFAC Avalanche Advisory for Mon Jan 31, 2011](#)

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Monday, January 31, at 7:30 a.m. Northern Lights Trading Company, in cooperation with the Friends of the Avalanche Center, sponsors today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Over the past 24 hours, 2-3 inches of low density snow has fallen in the mountains around Cooke City, while the rest of our advisory area picked up 1-2 inches. Temperatures have been on the decline as a cold arctic air mass continues to work its way into southwest Montana. Currently, mountain temperatures are ranging from -10 F on the ridge at Bridger Bowl to the single digits above zero in the mountains around West Yellowstone. Winds are blowing 10-20 mph out of the WNW producing a very cold wind chill factor. With the cold air settling in, temperatures will work to reach 10 degrees above zero today and winds will stay out of the WNW at 10-15 mph. No new snow is expected over the next 24 hours.

### Snowpack and Avalanche Discussion

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

The lipstick has officially been added to the pig. Over the past 24 hours, 1-3 inches of low density snow has fallen over a variety of snow surfaces - including compressed/recycled powder, sun crusts, wind crusts and everything in-between. The soft, nearly weightless nature of the new snow has not added enough weight to the snowpack to cause widespread problems. However, the new snow will likely bond poorly to the old snow surface, making any steep slope with recently wind deposited snow a potential hazard. Nearly all avalanche activity will stay confined to the new snow - in fact, skiing fresh slough debris may be the best conditions out there today.

A less likely, but not impossible scenario is the release of a deeper hard slab. A pesky trait of hard slabs is they often don't exhibit signs of instability such as cracking or collapsing; they many times surprise release, often catching the person who triggered them off guard. Currently, the most likely areas to find and trigger a hard slab is in places where the snowpack is shallow - mainly around rock outcroppings and highly wind affected areas near ridgelines ([photo1](#), [photo2](#)). Yesterday, skiers in Dudley Creek near Big Sky observed the remnants of a recent slide that broke up to 6 ft deep on a SE facing slope. This slide was likely the result of a hard slab sitting over weak, faceted snow near the ground.

Another problematic trend is the development of weak snow on the surface that has now been capped by the new snow. Surface hoar, near surface facets, and facet-crust combinations have been observed throughout our advisory area. Slopes that have received recent wind loading will likely be sensitive to human triggers, producing heightened avalanche conditions in wind loaded terrain. Also, the new snow itself will be subject to faceting as it gets worked by the cold temperatures over the next few days. This latest round of new snow is not enough to sound the avalanche alarm, but it will likely become a problem for future loads.

For today, human triggered avalanches are possible on wind loaded slopes steeper than 35 degrees where the avalanche danger is rated [MODERATE](#). All other slopes have [LOW](#) avalanche danger.

Doug 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.

West Yellowstone: Beacon Park Operational

Skiing or riding near West Yellowstone? Test your beacon skills at a beacon park near the old airport where you can search for pre-placed beacons switched on/off by a control panel. Look for it by orange snow fence and signage just south of the snow cross track.

#### 9th ANNUAL KING AND QUEEN OF THE RIDGE

The 9th Annual King and Queen of the Ridge will be held at Bridger Bowl on Saturday, February 12. ALL proceeds go to the Friends of the Avalanche Center who use the money to promote avalanche education in southwest Montana. Last winter we taught 64 classes reaching over 4,900 people. You can help raise money to continue this education in 2 ways:

- 1). Get pledges and hike the ridge. You don't have to do 20 laps – you can get flat pledges and hike just once! Or you can test your mettle and try and break John Yarrington's record of 29 laps in 5 hours.
- 2). Sponsor someone. If you don't have someone to sponsor, consider sponsoring the GNFAAC since we'll be hiking for dollars.

Go to [http://bridgerbowl.com/events/view\\_event/81/](http://bridgerbowl.com/events/view_event/81/) for more information and registration forms.

Avalanche Education

February 2, 3, and 5 in Bozeman

Advanced Avalanche Awareness –Wednesday & Thursday 7:00p.m. – 9:30 p.m. at MSU SUB Room 235 with a field day on Saturday at Bridger Bowl. ADVANCED REGISTRATION REQUIRED ([more information](#)) ([Register](#))

February 12 and 13 in Cooke City

Avalanche Workshop for Snowmobilers – Lectures on Saturday 12 p.m. – 4:30 p.m.

field session on Sunday 9 a.m. – 3 p.m.

ADVANCED REGISTRATION REQUIRED ([more information and registration](#))

For additional information and a listing of other avalanche classes, go to:

<http://www.mtavalanche.com/workshops/calendar>