

## **GNFAC Avalanche Advisory for Sun Dec 5, 2010**

Good Morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, December 5, at 7:30 a.m. The **Bountiful Table**, in cooperation with the **Friends of the Avalanche Center**, sponsor today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

A ridge of high pressure is currently sitting over southwest Montana producing clear skies and calm conditions. No new snow has fallen over our advisory area in the past 24 hours. Presently mountain temperatures are in the high teens to low twenties F and winds are light out of the W at 5-10 mph. Today clear skies and lots of sun will allow mountain temperatures to climbing into the 30's and winds will stay calm out of the W. Stable weather will persist over our area for the next 24 hours.

### Snowpack and Avalanche Discussion

#### *The mountains around Cooke City and the Washburn Range:*

Since Thursday, over a foot and a half of snow has fallen in the mountains around Cooke City. This latest storm came in warm and laid down a dense layer of 10% snow, putting a fast and heavy load on the snowpack. On top of the abundant snowfall came strong W-SW winds, which heavily loaded leeward slopes. These slopes will likely produce avalanches under the weight of skier or rider.

On Friday, a skier on Henderson Bench experienced whoomping and cracking on wind loaded slopes and witnessed shooting cracks as far as twenty feet in front of his skis, a sure sign of instability. This individual mentioned that these signs of instability were isolated events and did not occur on all slopes. These observations show that while non-wind loaded slopes seem relatively stable; slopes that have received wind loading are being pushed to the breaking point. Something to keep in mind if riding around Cooke City is that a large percentage of slopes in this area are affected by wind.

Today dangerous avalanche conditions exist on all wind loaded slopes and the avalanche danger is rated **CONSIDERABLE**. All slopes that have not received wind loading have a **MODERATE** avalanche danger.

#### *The Bridger, Gallatin and Madison Ranges and the Lionhead area near West Yellowstone:*

Calm winds and clear skies over the past 24 hours have helped the snowpack adjust under its most recent load. However, not all slopes are created equal. Slopes that have received wind loading will be more likely to produce avalanches than slopes that have not. Yesterday a skier driving home from Bohart Ranch witnessed a slide happening on the south face of Saddle Peak south of Bridger Bowl. It is unclear whether this slide was human triggered, but it was most likely an area of wind deposited snow that produced the avalanche. On Wednesday near Hyalite Peak, a group of skiers spotted several natural avalanches involving fresh wind slabs on northerly aspects, and two of them stepped down to deeper layers in the snowpack.

On Friday, I skied in the northern Bridger Range and found a layer of weak faceted crystals 11 inches above the ground ([photo](#)). This layer propagated fractures in stability tests and made me re-evaluate my skiing options for the day ([video](#)). Yesterday, I skied just north of Bridger Bowl on a slope with similar aspect and elevation as Friday's outing and found a deeper, more stable snowpack which produced minimal failures during stability tests ([video](#)). Mark also found a strong and well structured snowpack south of Big Sky while working with the

Yellowstone Club Ski Patrol on Friday. This is a great example of spatial variation, and shows that similar slopes, even in the same range, can have different snowpacks.

Today heightened avalanche conditions exist on specific terrain features, mainly wind loaded slopes near ridelines and the avalanche danger is rated **MODERATE**.

I 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.

### **Upcoming Avalanche Education**

1hr Avalanche Awareness - Tue, December 7, 6:30pm – 7:30pm @ REI Bozeman

Join Lucas Zukiewicz from the Montana Snow Survey for a FREE presentation/discussion on the SNOTEL system in SW Montana. The discussion will cover how to access SNOTEL information and interpret the data for snow and weather conditions. Sat, December 11, 7:30pm -8:30pm at World Boards

This year REI has chosen Friends of GNFAC as their charity of choice. By making a donation through REI you can help The Friends continue to support the Avalanche Center and promote avalanche education throughout southwest MT.