

## **GNFAC Avalanche Forecast for Thu Feb 11, 2010**

Good Morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Thursday, February 11, at 7:30 a.m. **Team Bozeman**, in cooperation with the **Friends of the Avalanche Center**, sponsor today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Yesterday morning the mountains near Big Sky, West Yellowstone, and Cooke City received about an inch of snow and winds increased in all areas blowing as hard as 30 mph. This morning temperatures were in the high single digits to low teens F with westerly ridgetop winds blowing 10-20 mph. Today cloudy skies will produce some snow with a bit more falling this evening. Temperatures will only climb to a high of 20 degrees F and winds will continue blowing from the west at 10-20 mph. By tomorrow morning 1-3 inches of snow will accumulate though more should fall Friday as well.

### Snowpack and Avalanche Discussion

*The southern Madison Range, southern Gallatin Range and the Lionhead area near West Yellowstone:*

There are two significant weak layers in the snowpack:

1. Big faceted crystals near the ground.
2. Surface hoar buried 1 1/2 feet deep.

The surface hoar layer does not exist on all slopes but is easy to find in snowpits and produces obvious signs of instability like collapsing, [cracking](#), and very poor stability test results ([video](#)). Large facets near the ground provide a weak foundation for the snowpack on all slopes and should not be trusted. Skiers near Electric Peak in the southern Gallatin Range experienced obvious signs of an unstable snowpack and abandoned their objective for the day. Doug found similar conditions in the southern Madison Range. Snowfall of an inch or two here and there has maintained great riding conditions. Unfortunately this snow plus a bit of wind to blow it onto the lee sides of ridges and gullies has also kept these weak layers near their breaking point. Today any steep slope over 35 degrees and any slope with wind drifted snow has a [\*\*CONSIDERABLE\*\*](#) avalanche danger. Less steep slopes without wind drifted snow have a [\*\*MODERATE\*\*](#) danger.

*Bridger, northern Madison, and northern Gallatin Ranges, mountains around Cooke City and the Washburn Range:*

A similar layer of large faceted crystals exist near the ground in the mountains near Bozeman, Big Sky and Cooke City. In some areas this layer has gained strength. In other areas it remains weak but is not too reactive because these facets have not been heavily stressed by recent snowfall. Yesterday near Big Sky I went riding around Buck Ridge with a forecaster from New Zealand. We found these big facets and did not trust them. Even though many riders have tested steep slopes, we opted for equally good riding on slopes less than 30 degrees.

We also found very small facets and some surface hoar near the snow surface on all aspects. This new weak layer formed within snow that fell over the weekend and was exposed to warm sunny days and clear cold nights early this week. New snow yesterday morning capped and preserved this weak layer. As winds increased

yesterday, they readily transported loose snow and formed fresh wind slabs 6-12 inches thick resting on this new weak layer. On Tuesday, three separate skiers on Saddle Peak in the Bridger Range triggered fresh wind slabs. Stay alert for any wind-blown snow and avoid it. Recent avalanche activity has also occurred on deeper layers in the snowpack on Bridger Peak ([pic1](#), [pic2](#)), north of Ross Peak, and near [Cooke City](#). Today all slopes with wind drifted snow have a **CONSIDERABLE** avalanche danger. All other slopes have a **MODERATE** avalanche danger.

I will issue the next advisory tomorrow morning at 7:30 a.m. If you get out in the backcountry let us know what you find. You can reach us at 587-6984 or email us at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com).

## **8<sup>th</sup> ANNUAL KING AND QUEEN OF THE RIDGE, Saturday, February 13<sup>th</sup>**

The K&Q of the Ridge raises money for avalanche education and has helped us significantly expand our classes in recent years. All three of us will be hiking the ridge for dollars this Saturday. You can sponsor all three of us, just one or donate a flat fee. I'm not sure Doug has many hikes in him, so consider a flat donation for his hikes. Consider sponsoring Eric for each lap, but watch out because he's got quite a few in him. Mail us at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com).

You can also [make a donation to Team Tyler](#) in memory of **Tyler Stetson**. Tyler was killed in an avalanche in Beehive Basin in January 2008. *Team Tyler* is comprised of family and friends who are traveling to Bridger Bowl from all over the country to compete and honor Tyler's life.

### **Avalanche Education**

#### **1. Cooke City Fire Hall**

One Hour Avalanche Awareness Class - Saturday, February 13<sup>th</sup> 6:30 pm to 7:30 pm

#### **2. Bridger Bowl**

AAI Level 1 Avalanche Course - Friday, February 19<sup>th</sup> to Sunday, February 21<sup>st</sup>

[www.americanavalancheinstitute.com](http://www.americanavalancheinstitute.com)

#### **3. Bridger Bowl**

AAI Level 2 Avalanche Course - Monday, February 22<sup>nd</sup> to Thursday, February 25<sup>th</sup>

[www.americanavalancheinstitute.com](http://www.americanavalancheinstitute.com)

#### **4. Moonlight Basin**

Comprehensive avalanche awareness class - Thursday, March 4<sup>th</sup> to Saturday, March 6<sup>th</sup>

[events@moonlight.com](mailto:events@moonlight.com) or 406-993-6026