

## **GNFAC Avalanche Forecast for Sun Jan 17, 2010**

Good Morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, January 17, 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

During the past 24 hours a westerly flow has brought cloudy skies, mild temperatures and light precipitation to southwest Montana. A trace of new snow has fallen in the Madison Range and the mountains around Cooke City. This flow will continue throughout the day today, bringing a slight chance of snow to the southern mountains and producing ridgetop winds out of the W-SW at 15-20 mph. Temperatures will stay warmer in the northern ranges with lows in the 20s and highs breaking 40 F degrees. The southern mountains around West Yellowstone and Cooke City will stay slightly cooler with highs around freezing and lows in the teens.

### Snowpack and Avalanche Discussion

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

The Madison Range continues to actively produce avalanches, demonstrating that it holds the weakest snowpack within our advisory area. Two human triggered avalanches occurred outside of the Moonlight Basin ski area on Friday and another human triggered avalanche occurred yesterday on an east facing slope off the ridge that separates Beehive Basin from Middle Bear Basin. This slide occurred at 8,400 ft and broke on a slight convex rollover where the slope went from 30 to 36 degrees. The slab failed on a weak layer of facets 20 inches below the surface and deposited debris 4-6 feet deep ([photo](#)). Also, three separate human triggered avalanches were reported yesterday in the Lionhead area near West Yellowstone. All three avalanches were triggered by snowmobilers with one resulting in a damaged sled.

This type of avalanche activity indicates an obviously weak and unstable snowpack! Buried weak layers remain a persistent problem within our snowpack and they continue to produce good sized avalanches with the right trigger. In addition, strong winds out of the W-SW have developed fresh wind slabs primarily on E-NE facing slopes. These thick, heavy slabs are forming over weak faceted snow and are proving to be sensitive and dangerous. Remember, it does not need to be snowing for the avalanche danger to increase. For today, a **COSIDERABLE** avalanche danger exists on all wind loaded slopes and slopes steeper than 35 degrees. All other slopes have a **MODERATE** avalanche danger.

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

In the mountains near Bozeman and Cooke City the snowpack is slightly stronger. Warmer temperatures and a lack of snow over the past week have allowed for some strengthening to occur. Time along with the weight of nearly 3 feet of snow is finally causing the weak layer of facets near the ground to show some signs of consolidation making failures harder and less likely on this layer.

On Friday Doug and I spent the day in Cooke City examining the snowpack on different aspects and elevations. Our stability tests did show evidence of improvement, but weak facets near the ground were still failing and propagating meaning we are not out of the woods yet. In areas where the pack is shallower or has received recent wind loading the potential for triggering an avalanche still exists. For today, human triggered avalanches remain possible and the avalanche danger is rated **MODERATE**.

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

## **Avalanche Education**

### **Education Calendar**

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

One-hour Avalanche Awareness Class - Saturday, January 16<sup>th</sup> - 6pm to 7pm

#### **2. West Yellowstone, Holiday Inn**

One-hour Avalanche Awareness Class - Saturday, January 16<sup>th</sup> - 7pm-8pm

#### **3. Bozeman**

MMA Teen Avalanche Class: Lecture Thursday, January 21<sup>st</sup> & Field Session Saturday, January 23<sup>rd</sup>. To sign up or get more information, call Erin Taylor Montana Mountaineering Associations at 522-0659

([Info](#))

#### **4. Bridger Bowl**

AAI Level 1 Avalanche Course - Friday, January 22<sup>nd</sup> to Sunday, January 24<sup>th</sup>

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

#### **5. Four Corners Groomer Shack**

RESCUE LECTURE: Tuesday, January 26<sup>th</sup> 7pm. The Gallatin Valley Snowmobile Association is having it annual Chili Feed at 6:30pm in the Groomer Shack at 4 corners.

#### **6. Billings**

Avalanche Awareness and Rescue Class-Wednesday, January 27<sup>th</sup>, 6-9 pm at Beartooth Harley.

#### **7. Big Sky**

Moonlight Basin Avalanche Course: Join Moonlight Basin for a comprehensive, two-day and one evening avalanche awareness class. Thursday, Jan 28<sup>th</sup> 5-9:30pm and Friday and Saturday, Jan 29&30 8am-4pm. Contact: [events@moonlightbasin.com](mailto:events@moonlightbasin.com) or 406-993-6026

#### **8. Bozeman**

BASIC AVALANCHE WORKSHOP: The Friends of the Avalanche Center and ASMSU Outdoor Rec are offering a Basic Avalanche Awareness Class the evenings Wed, Thur, 27 & 28 January with a field day on Saturday, 30 January. \$25 donation. No sign up required. <http://www.mtavalanche.com/education/classes/basic>

#### **9. West Yellowstone, Holiday Inn**

One-hour Avalanche Awareness Class - Saturday, January 30<sup>th</sup> - 7pm to 8pm