

## **GNFAC Avalanche Advisory for Thu Dec 24, 2009**

Good Morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Christmas Eve, Thursday, December 24 at 7:30 a.m. **The Pinhead Classic Telemark Festival**, in cooperation with the **Friends of the Avalanche Center**, sponsor today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Overnight temperatures dropped to near zero degrees F, and winds increased to 15-30 mph from the W and NW. In the Bridger Range at 4 a.m. winds were blowing at all elevations with gusts reaching 47 mph in the base area of Bridger Bowl. In the past 24hrs 4-5 inches of low density snow fell in the mountains near Big Sky and Bozeman. Other areas received 2-4 inches. Today, temperatures will only climb to 10 degrees F, and winds will continue blowing 15-30 mph from the W and NW.

### Snowpack and Avalanche Discussion

*The Gallatin and Madison Ranges, the Lionhead Area near West Yellowstone, the mountains outside Cooke City and the Washburn Range:*

Yesterday's snowfall may not seem like much, but it is a significant load for our weak snowpack. In all areas the snowpack contains obvious layers of very weak faceted snow formed during the second week of December. A slab of cohesive and mostly supportable snow rests on these facets that have been stressed to their breaking point. Yesterday the Big Sky Ski Patrol reported sensitive wind slabs up to 12 inches thick that have likely grown larger and stiffer overnight as winds increased. On wind loaded slopes at the Yellowstone Club, the Ski Patrol triggered several large avalanches that fractured on facets near the ground. Prior to yesterday's storm these slopes had been hammered by explosives with no effect until the additional weight of just a few inches of snow tipped the scales.

The snowpack has given clear warning signs that it is unstable and we have recorded many of these signs in photos and videos at:

Photos: <http://www.mtavalanche.com/photo>

Videos: <http://www.mtavalanche.com/video/youtube>

For today, wind loaded slopes have reached their breaking point and both natural and human triggered avalanches are likely in this terrain where the avalanche danger is rated **HIGH**. Terrain without wind drifted snow has a **CONSIDERABLE** avalanche danger.

### *The Bridger Range:*

Winds have been blowing stronger in the Bridger Range than other areas, and they have been blowing at all elevations. These winds have easily transported yesterday's low density snow and formed stiff wind slabs that will easily fracture under the weight of a skier or rider. These wind slabs will also stress weak, faceted layers in the snowpack. These layers are not as weak as they are in the rest of the advisory area but are still bad and could easily fracture and produce an avalanche several feet deep. For today the avalanche danger is rated **CONSIDERABLE**.

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**

### **1. WEST YELLOWSTONE**

Snowmobilers and Skiers: Saturday, January 2 from 12-5 pm at the Holiday Inn is avalanche lectures. Sunday, January 3 will be an all day field session for both skiers and snowmobilers. \$30 suggested donation. No sign up required. <http://www.mtavalanche.com/education/classes/snowmobilers>

### **2. BOZEMAN**

Level 1: 7-10 January, Montana Outdoor Science School is offering a Level 1 Avalanche Course. Instructors are Angela Patnode and Jay Pape. For more information, contact Montana Outdoor Science School at 406-582-0526.

### **3. BOZEMAN**

Level 1: American Avalanche Institute is offering a Level 1 Avalanche Course January 22-24, 2010 at Bridger Bowl. Get more information and register at: [www.americanavalancheinstitute.com](http://www.americanavalancheinstitute.com)

### **4. FOUR CORNERS**

Rescue Lecture: On Tuesday, 26 January, the Gallatin Valley Snowmobile Association is having it annual Chili Feed at 6:30pm in the Groomer Shack. At 7:00 there's a free Avalanche Rescue Talk. <http://www.mtavalanche.com/workshops/calendar>

### **5. BOZEMAN**

Basic Avalanche Workshop: The Friends of the Avalanche Center and MSU 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>