

GNFAC Avalanche Forecast for Wed Dec 23, 2009

Good Morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, December 23 at 7:30 a.m. **Bridger Bowl**, in cooperation with the **Friends of the Avalanche Center**, sponsor today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

At 6 a.m. the southern mountains have an inch of new snow with closer to three in the north. Ridgetop winds are currently blowing 15-20 mph out of the west to northwest and will continue today. An arctic airmass will further intrude into our region and drive temperatures to below zero tonight and drop another 1-2 inches of snow this morning. The northwest flow should deliver even higher amounts in the Bridger Range, but maybe it's just wishful thinking on my part. This moist system will depart later today leaving us with sunny skies and warming, seasonal temperatures through the weekend.

Snowpack and Avalanche Discussion

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

Yesterday, Mark and I rode into Buck Ridge. We saw crown lines on many aspects that likely slid late last week. The crowns were only 6-12" thick and were reminiscent of the avalanche activity I saw in Taylor Fork on Sunday (see video). The snowpack from Big Sky southward mostly consists of facets. Some facets are big, some are small; some layers are thick, others are thin and sandwiched between denser slabs. Regardless, all the facets are weak and even failed under the relatively light load of a few inches of snow. They're also persistent. A slope can avalanche, get reloaded with the next storm and avalanche again on the same layer. The bottom line: We've got a problem.

Video on Taylor Fork avalanches: <http://www.youtube.com/watch?v=WbJHo-yfCeA>

We've observed natural avalanche activity, cracking and collapsing and persistent weaknesses in the snowpack. Our stability tests are not showing any strengthening. Mark and I had a column fall over as we cut it yesterday. Like an ICU patient shuffling with a walker, the snowpack can barely support its own weight. For today, human triggered avalanches are likely and the avalanche danger is rated **CONSIDERABLE**.

The Bridger and northern Gallatin Ranges:

The instabilities in the Bridger and northern Gallatin Ranges have not been as obvious as the other areas since they have not gotten snowfall. Today will change that. With 2-3 inches on the ground this morning and the forecast calling for more snow, the avalanche danger could rise throughout the day. Weak, faceted snow between denser wind crusts are breaking clean in our stability tests. Eric was on Saddle Peak yesterday and was able to get fractures to propagate in his snowpit. One was two feet under the surface and will take a large load to trigger; the other was a few inches from the top and will likely fracture with the new windblown snow today. Over the past few weeks our observations and tests have been consistent, which increases our confidence level. Consequently, for today the avalanche danger is rated **CONSIDERABLE** on all wind-loaded slopes and **MODERATE** on all others. If snowfall continues throughout the day the danger will climb too.

Mark 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.

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

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>