

GNFAC Avalanche Advisory for Mon Dec 28, 2009

This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Monday, December 28, at 7:30 a.m. **Pinhead Classic Telmark 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

A split jet stream has produced a large high pressure system that has now encompassed the entire state of Montana. High pressure systems involve large masses of air that rotate clockwise (in the northern hemisphere) and result in sinking air and stable conditions. High pressure traps cold air in the valleys and keeps warmer air aloft making for striking temperature inversions. This trapped cold air can produce dense valley fog and even light precipitation in the valleys as moisture is condensed out of the air.

Southwest Montana will remain under high pressure for at least the next 24 hours making for clear skies and calm conditions. Winds will be light along the ridgetops at 5-10 mph out of the S-SE. Valley temperatures will remain cold with lows in the single digits and highs around twenty. In the mountains, temperatures will feel almost tropical with highs in the upper twenties to low thirties and lows around ten degrees. It looks like we will be moving into an unsettled weather pattern starting Wednesday and continuing into the latter part of the week.

Snowpack and Avalanche Discussion

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

Slabs sitting over weak, faceted snow continue to be a constant problem from the northern Madison and Gallatin Ranges all the way to Cooke City. A rider in the Taylor Fork on Saturday experienced cracking and collapsing and even got small chunks of snow to move on low angle slopes. These are obvious signs of instability that are not to be ignored. Unfortunately, signs of instability will not always be this noticeable. When dealing with a weak, unpredictable snowpack such as the one we have now, each individual slope should be evaluated before being ridden on.

Doug was riding in Cooke City yesterday and witnessed numerous human triggered avalanches and experienced cracking and collapsing as he toured on low angle slopes. One slope that avalanched and caught a rider had 10-20 tracks on it when it slid. This is a perfect example that tracks on a slope can not guarantee stability. It's important to be wary around rock outcroppings and places where the snowpack will be thinner. These areas are likely trigger points that will fail and potentially pull out larger areas around them.

See Pictures of Avalanche: <http://www.mtavalanche.com/images/09/crown-butte-avalanche-2>

See Video: http://www.youtube.com/watch?v=4CPi1i8qr7o&feature=player_embedded

Just because the weather has improved doesn't mean the avalanche hazard has. Always travel one at a time on steep slopes and make sure everyone in the party has rescue gear and knows how to use it.

For today, human triggered avalanches are likely and the avalanche danger is rated **CONSIDERABLE**.

The Bridger Range:

Quiet weather has helped stabilize the snowpack in the Bridgers. A lack of significant snowfall over the past few weeks has left the pack weak but not terribly unstable. In most places there is not enough weight to propagate a fracture and produce a slab avalanche, though avalanches are still possible on steep wind loaded slopes.

A new arising problem in the Bridger Range is the weak snow that is forming at or near the new snow surface. Low density snow from our last snow event combined with warm days and cold clear nights is a perfect formula for producing both surface hoar and near surface facets. Both of these fast forming weak layers can easily be preserved under future new snow and have the potential to be a hazard in the snowpack for weeks. With a snowier pattern in the forecast this will be something to look out for.

For today, a **MODERATE** avalanche danger exists on all slopes.

Doug 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>