

## **GNFAC Avalanche Forecast for Fri Dec 18, 2009**

Good Morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Friday, December 18 at 7:30 a.m. **Big Sky Ski Patrol**, 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, Lone Peak picked up 3 inches of new snow while the rest of our mountains got 1-2 inches. Overnight west to southwest winds decreased to 15-20 mph and temperatures are currently in the teens. Today will be mostly sunny with mountain temperatures reaching into the 20s again. Winds will remain light out of the west and no snowfall is expected.

### Snowpack and Avalanche Discussion

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

The southern mountains will get a reprieve today from all the new snow. Cooke City has gotten hammered with close to 3 feet falling in a week (photo link below). Around West Yellowstone half that amount fell, which is still significant. The snowpack is weak and faceted and is straining under this new snow burden. To exacerbate the situation, winds blew hard out of the west and loaded many slopes above treeline. On Monday in the Lionhead area, Karl and I saw avalanches and also got widespread collapsing and cracking. Yesterday, one of our trusted observers in Cooke City saw recent avalanche activity and reported the snowpack to be "super sensitive" as he skied, i.e. lots of collapsing and cracking.

Further south in Yellowstone NP avalanche control teams released many moderate to large avalanches on Sylvan Pass. Although outside our forecast area, they found similar snow structure and instability. Given the recent snows, strong winds and obvious signs of instability, for today the avalanche danger is rated **HIGH** on all wind-loaded slopes and **CONSIDERABLE** on all others.

*The northern Madison Range:*

The mountains around Big Sky have weaker, more unstable snows than the adjacent ranges to the north. On Wednesday, a snowmobiler triggered a small avalanche on Slatt's Hill on Buck Ridge (photo link below) from 30 feet away. It ran on faceted, sugary grains underlying a wind slab. Remotely triggering a slide is a crystal clear sign of instability. The Ski Patrols at Big Sky and Moonlight Basin also continue to get avalanches two feet deep on avalanche control. The faceted snow in this area became weaker and more unstable from all the cold weather and is challenging the pros. It does not bode well for the backcountry when professionals with explosives are having a hard time taming the avalanche dragon. For today, the avalanche danger is rated **CONSIDERABLE** on all slopes.

The Big Sky Ski Patrol wrote a detailed account of a recent avalanche which caught two skiers on Lenin. You can read it on the Accidents page: <http://www.mtavalanche.com/accident/09/12/18>

*The Bridger and northern Gallatin Ranges:*

The Bridger and northern Gallatin Ranges have weak snow within a foot of the snow surface. On Wednesday, Mark was able to intentionally trigger a slide on Mt. Blackmore. This was next to the slide which caught a skier last Saturday. Check out the photos and video links below.

In the Bridger Range the situation is tenuous. Weak, faceted snow is underlying compacted hard slabs a foot thick in much of the range. A team of us left Bridger Bowl and dug a snowpit on the west side of the range and two pits on the east face of Saddle Peak. I was not happy with what we found. Our stability tests are all showing clean, fast fractures propagating on these sugary grains under the hard wind slab. We dug pits in different locations and found similar results. This gave us confidence that things are sketchy over a wide area. It will take a large load of snow to get these slopes to avalanche; however, an unlucky skier could trigger a slide if he hit a weaker, thinner part of the slab. Tracks on a slope are not a sign of stability. And skier compaction will not help this type of snow structure since the weak snow underlies a supportable slab. Check out our video and photos for a graphic representation.

Recent avalanche activity and poor stability test scores are indicating a **CONSIDERABLE** avalanche danger on all wind-loaded terrain. All other slopes have a **MODERATE** danger.

**VIDEOS:**      **Saddle Peak** instability: <http://www.youtube.com/watch?v=538ihUeQaxU>

**Mt. Blackmore** avalanche: <http://www.youtube.com/watch?v=BmXFbnlBVK4>

**PICTURES** of Saddle Peak, Cooke City, Slatt's Hill and others: <http://www.mtavalanche.com/photo>

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](mailto:mtavalanche@gmail.com).