

GNFAC Avalanche Advisory for Fri Dec 31, 2010

Good Morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Friday, December 31, at 7:30 a.m. Alpine Orthopedics, in partnership with the Friends of the Avalanche Center, sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Happy New Year's Eve! It's cold this morning and shouldn't warm up much until next year. Since yesterday only a trace to two inches of new snow fell. Temperatures were in the negative teens F this morning though a bit warmer near West Yellowstone with winds blowing 5-15 mph from the eastern half of the compass. Mostly cloudy skies will prevent much warming and temperatures should rise to near 0 F. Light winds will blow 5-10 mph and shift to the north.

Snowpack and Avalanche Discussion

The northern Madison Range:

Stability issues in the new snow will slowly diminish, but we remain concerned about a layer of surface hoar buried about 2 ft deep. While this layer does not exist on every slope, it is more widespread in the mountains near Big Sky than any other area. To further complicate matters, this layer showed some initial signs of strengthening on Tuesday along Buck Ridge, and a skier on Yellow Mountain yesterday also saw a glimmer of hope. However, this information is not bull's eye data for today and should be stored for later use. The key data to remember are:

1. We have a widespread weak layer.
2. It was heavily stressed by recent snow and needs time to adjust.
3. This weak layer has given strong warning signs like collapsing and cracking in Beehive prior to this storm as well as an avalanche at Moonlight Basin at the end of the storm.

One more thing: Just as a New Year's Eve party can make things a little wild and crazy, a big storm can make the snowpack get a little wild and produce a few surprising avalanches. At the Yellowstone Club yesterday, on an E facing slope without skier compaction near 8500 ft, the ski patrol triggered a large avalanche which broke on some facets near the ground. It started in terrain with slope angles in the mid 30's but propagated into terrain with slope angles in the mid 20's.

This avalanche does not indicate the widespread presence of facets near the ground, but it reminds us to use a little patience after a big storm, carefully evaluate the snowpack and pay attention to bull's eye information. For today the avalanche danger is rated [CONSIDERABLE](#).

The Bridger, southern Madison and entire Gallatin Ranges, the Lionhead area near West Yellowstone, the mountains around Cooke City and the Washburn Range:

The rest of the advisory area has only isolated areas with persistent weak layers. The most notable are the Bacon Rind area, Flathead Pass and S and W facing slopes on the west side of the Bridger Range. Otherwise, the primary concern is the interface between the new snow and the old snow surface. During the storm on Wednesday, ski patrollers at Bridger Bowl as well as skiers on Saddle Peak very easily triggered new snow avalanches with ski cuts. Further south near Hebgen Lake, Doug and I saw signs of this new snow instability in

very minor cracking around our skis, but felt totally safe skiing non wind affected slopes less than 35 degrees. Yesterday near Mt Blackmore, a skier found a mostly stable snowpack except at the interface between the new and old snow which had not yet bonded well.

For today, human triggered avalanches confined to the new snow are likely on slopes steeper than 35 degrees, and the avalanche danger on these slopes is CONSIDERABLE. A few degrees less steep can make all the difference, and slopes less than 35 degrees have a MODERATE avalanche danger.

I will issue the first advisory of 2011 tomorrow morning at 7:30 a.m. If you have any snowpack or avalanche observations, drop us a line at mtavalanche@gmail.com or call us at 587-6984.

Avalanche Education

Avalanche Awareness for Snowmobilers and Skiers, West Yellowstone, Holiday Inn;

Lectures: TOMORROW, January 1 from 12-5 p.m.; Field: Sunday, January 2 all day. No Registration Required. ([more information](#))

There are many upcoming avalanche classes in the month of January. Check them on our education page at: <http://www.mtavalanche.com/workshops/calendar>