

GNFAC Avalanche Advisory for Thu Dec 13, 2012

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Thursday, December 13 at 7:30 a.m. Today's advisory is sponsored by the Montana FWP Recreation Trails Grant. This advisory does not apply to operating ski areas.

Mountain Weather

Since yesterday morning the Bridger Range received 11 inches of heavy snow (1" of SWE). The northern Gallatin Range including Hyalite Canyon only received 2-3 inches of snow. All other areas including those near Big Sky, West Yellowstone and Cooke City received 10-12 inches of light snow (0.6-0.7" of SWE). Temperatures this morning were in the low to mid teens F and should rise into the 20's F today. Winds were averaging 10-15 mph from the SSW with gusts of 20 mph and should remain about the same. Today the sun may appear near Bozeman and Big Sky, and 1-2 inches of snow should fall near Cooke City and West Yellowstone.

Snowpack and Avalanche Discussion

[Bridger Range](#) [Madison Range](#) [Gallatin Range](#)

[Lionhead area near West Yellowstone](#)

Yesterday's storm deposited nearly a foot of new snow in most places. Winds have not been too strong and deep powder exists on many slopes. Although many slopes have strong stable snow, I am very worried because we have been finding other slopes that do not. These slopes contain weak faceted layers near the ground, and/or surface hoar and other facets in the middle of the snowpack. There are 3 red flags:

1. The existence of these persistent weak layers.
2. Stability tests that propagate a crack through these weak layers.
3. The stress of new snow.

It is hard to predict where these layers exist and digging a snowpit or multiple snowpits is essential ([where to dig snowpits video](#)). Yesterday, Doug and Karl went to the Bacon Rind area of the southern Madison Range and found a layer of buried surface hoar ([video](#)) similar to one I found in the Taylor Fork area one week ago. Surface hoar is a particularly dangerous weak layer because it will often exist on one slope but not another. I was in Beehive Basin yesterday where my partner and I found stable slopes but also found slopes that I would not ski because they had the three red flags.

Although winds have not been too strong, they have formed some wind slabs that a skier or rider could trigger. Fortunately these exist in typical locations and are easy to avoid. One problem not common to this area is loose snow sloughs. Eric and his partners skied north of Bridger Bowl yesterday where they felt comfortable skiing steep slopes, but they also triggered a large loose snow slough. Although this hazard is somewhat easy to mitigate and may not bury a person, it can easily push someone down a slope and cause injuries. Another group nearby saw several similar sloughs release naturally.

Today heightened avalanche conditions exist on specific terrain and human triggered avalanches are definitely possible. For these reasons the avalanche danger is rated [MODERATE](#), but this rating is only a starting point. Enjoy the powder but adjust this danger rating for EVERY slope you encounter. I am certain that some

slopes have a higher danger and others have a lower danger.

[Cooke City](#)

The mountains near Cooke City mostly lack faceted layers in the snowpack except on isolated slopes, and few avalanches have been observed. The primary problems are wind slabs and loose snow sloughs and the primary red flag is simply a lot of new snow. Be conservative and have patience. The long term prospects for stability look very good. For now, just like other parts of the advisory area, heightened avalanche conditions exist on specific terrain and human triggered avalanches are definitely possible making the avalanche danger [MODERATE](#).

I will issue the next advisory 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.

NEW TO THE AREA?

Check out our [Place Names Map](#) which shows common names of popular backcountry areas.

EDUCATION

Snowmobiler Introduction to Avalanches with Field Course in West Yellowstone on December 20 and 21. Sign up for this class [HERE](#).