

GNFAC Avalanche Advisory for Wed Dec 14, 2011

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, December 14 at 7:30 a.m. This advisory is sponsored by Yellowstone Club Community Foundation in partnership with the Friends of the Avalanche Center. This advisory does not apply to operating ski areas.

Mountain Weather

Ask and you shall receive. Four to six inches of low density snow fell in the northern mountains early this morning. The Club got four while Bridger Bowl measures six. The southern ranges got two to four inches. Winds are westerly and averaging 10-15 mph with occasional gusts to 30 mph, except on the ridge at Bridger Bowl where they are blowing 30-45 mph. Mountain temperatures are in the teens. Another inch or two will fall this morning before tapering off. This afternoon skies will turn partly cloudy and westerly winds will lessen to 10-20 mph.

Snowpack and Avalanche Discussion

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

The snow that fell this morning was low density powder ranging from 4-6%. It did not add a lot of weight to the snowpack (.1-.3 inches of [SWE](#)) except near the ridgelines in the northern mountains where wind drifts formed. A blanket of surface hoar covered much of southwest Montana before this snowfall ([photo](#)). It's now buried, preserved as a weak layer and obvious marker in our future snowpit walls. On many slopes this surface hoar formed on top of such a weak snowpack that it won't matter much: weak snow on top of weak snow. Around Hyalite and Cooke City and Taylor Fork, the snows are deeper with the weakest layer in the snowpack being a layer of facets near the ground. The buried surface hoar in these zones will likely be an additional problem as the winter progresses.

Yesterday I went to Bacon Rind in the southern Madison Range. Surface hoar blanketed everything ([photo](#)) and you can even hear it tinkling as [skis sliced through it at the end of the video](#). Thin snowpacks are weak. The new snow was not enough to make the weak snow unstable. The only exception to this would be on wind-loaded slopes in the northern mountains where it would be possible to trigger small wind drifts.

Yesterday, Eric and a partner took a ten mile tour from Big Creek up and over Hyalite Peak in the northern Gallatin Range. He did not find signs of instability and only saw one older crown line in the distance on a wind-loaded slope. The snowpack structure is our main stability concern. Denser slabs are sitting on top of unbonded facets. Although these facets may be gaining some strength you'll want to evaluate these slopes by digging to the ground.

For today, the avalanche danger is conservatively rated [MODERATE](#) on recently wind-loaded slopes AND on slopes with a snowpack thicker than two feet deep. Facets near the ground are not our friend.

On slopes that have less than two feet of snow, the danger is [LOW](#). Although these snowpacks are weak, they will not become unstable until we get more snow.

If you like looking at snowpits, scroll through our [Snowpit Profiles page](#) to get an idea of the weak snow structure we are talking about. If the layers in the diagram were building blocks, they would soon topple over as

more blocks get added.

Mark 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.

EVENTS/EDUCATION

To check out all our education programs: <http://www.mtavalanche.com/workshops/calendar>

ANACONDA TONIGHT

1-hour Avalanche Awareness Lecture. Wednesday, December 14, 7-8 p.m. at the Metcalf Building.

WEST YELLOWSTONE

[Snowmobiler Introduction to Avalanches with Field Course](#). Lectures on Thursday, December 15 with an all day field course on Friday, December 16. Advanced registration is NOT required, but encouraged.

BOZEMAN

Women's 1-hour Avalanche Awareness Lecture. Wednesday, January 4, 6:30- 8 p.m. at REI.

[Snowmobiler Introduction to Avalanches with Field Course](#). Lectures on Saturday, January 7, with an all day field session Sunday, January 8. Advanced registration IS REQUIRED.

CODY, WYOMING

[Snowmobiler Introduction to Avalanches with Field Course](#). Lectures on Saturday, January 14 at Mountain Valley Motorsports with an all day field session near Cooke City on Sunday, January 15. Advanced registration IS REQUIRED.