

GNFAC Avalanche Forecast for Sat Feb 18, 2012

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on, Saturday, February 18 at 7:30 a.m. Montana FW&P Recreation Trails Grant, in partnership with the Friends of the Avalanche Center, sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Since yesterday morning a trace to one inch of snow has fallen over the mountains of our advisory area. Currently, mountain temperatures are in the teens and winds are blowing out of the WSW at 10-20 mph. Today, temperatures will warm into the 20s F and winds will shift to the WNW blowing 15-25 mph. An approaching cold front will produce an increased chance of snow showers by this afternoon. 3-5 inches will likely accumulate in the mountains by tomorrow morning.

Snowpack and Avalanche Discussion

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

Winter is doing its best to make an appearance. Fresh snow has fallen nearly every day this past week, making riding conditions some of the best of the year. As the snow gradually piles up, the snowpack is working to support the new load.

Although snow totals over the past week have been respectable, the light-dry nature of the snow has amounted to less than 1" of [SWE](#) in most areas. While this snowfall has not added a tremendous amount of stress to the snowpack, it has provided enough ammunition for moderate winds to build fresh wind slabs ([photo](#)). These wind slabs are today's primary avalanche concern.

The most likely areas to find and trigger pockets of windblown snow will be the leeward side of upper elevation ridgelines. Cornices are a good clue as to which direction the wind has been blowing and slopes below cornices should be avoided ([photo](#)). Yesterday, Mark was in Cooke City and found wind loaded slopes, specifically those with a southerly aspect to be the most unstable. A facet crust combination about a foot below the surface provided the proper structure for wind slabs to move. A skier in Hyalite found similar conditions on Thursday.

Recently formed wind slabs should stay manageable in size. I don't expect areas of windblown snow to propagate across entire ridgelines. However, it does not take a large slide to produce severe consequences.

A secondary concern is avalanches breaking on deeper layers in the snowpack. Yesterday, my partner and I toured to [Ernie Miller Ridge](#) from [Bacon Rind](#). We found a poor snowpack structure and received unstable results during stability tests ([photo](#), [snowpit](#)). Triggering an avalanche on deeper layers will require finding the right combination of a strong slab resting over a thin weak section of the snowpack. The most likely areas to find this condition would be in steep, upper elevation, rocky terrain.

Today, human triggered avalanches are likely on wind loaded slopes steeper than 35 degrees which have a [CONSIDERABLE](#) avalanche danger. Less steep, non wind loaded slopes have a [MODERATE](#) avalanche danger.

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.

NRCS Snowpack Summary Graphs

For the current state of our snowpack depth (about 70% of average on the Gallatin), check out these two graphs generated by NRCS ([graph 1](#), [graph 2](#)).

EDUCATION

West Yellowstone – Saturday, February 18

FREE 1-hour Avalanche Awareness for snowmobilers at the Holiday Inn. 7-8 p.m. in the room next to the bar.