

## **GNFAC Avalanche Advisory for Mon Jan 2, 2017**

Good Morning. This is Alex Marienthal with the Gallatin National Forest Avalanche Advisory issued on Monday, January 2<sup>nd</sup> at 7:15 a.m. Today's advisory is sponsored by [Yellowstone Club Community Foundation](#) and the [Pinhead Classic](#). This advisory does not apply to operating ski areas.

### Mountain Weather

The mountains got 1-2" of low density new snow over the past 24 hours. Temperatures at 4 a.m. are in the single digits to teens below zero F. Wind overnight was out of the south-southeast at 10-20 mph and shifted easterly at 5-10 mph this morning. Temperatures will reach the single digits above and below zero F today then drop to the teens below zero F tonight. Wind will remain easterly at 5-15 mph. Skies will be mostly cloudy with light snow showers. The mountains will have a trace to 2" of new snow by morning with highest amounts in the southern ranges.

### Snowpack and Avalanche Discussion

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

#### Lionhead area near West Yellowstone

Throughout the advisory area layers of sugary weak snow form the foundation of the snowpack. Slabs of snow 3-7 feet thick rest over these weak layers, which broke and caused large avalanches through December. A natural avalanche was observed yesterday in the Northern Gallatin Range. Last week, snowfall and heavy wind-loading triggered large natural avalanches near Cooke City ([photo](#), [photo](#), [photo](#)). These avalanches broke deep in the snowpack on heavily wind loaded, east to north facing slopes. It is possible for a snowmobiler or skier to trigger one of these large avalanches today.

Without recent heavy snowfall and wind-loading it will be difficult to trigger one of these large slabs, but doing so will have high consequences ([photo](#)). Weak snow near the ground has adjusted to the weight of overlying slabs and will show few obvious signs of instability such as recent avalanches or cracking and collapsing. Stability tests show stronger and stable results and avalanches may be triggered after multiple tracks are placed on a slope. Doug explains this complex setup in his [video](#) from Cooke City yesterday. Slopes that have a deep slab above this weak layer, like near Cooke City, might be triggered from a shallow spot in the snowpack.

Recent observations near Beehive ([video](#)), Hebgen, Taylor Fork ([video](#)), and on the Football Field near Saddle Peak ([video](#)) show many slopes where weak snow at the base of the snowpack does not have a deep, cohesive enough slab above to produce an avalanche. However, some slopes still have the perfect recipe for an avalanche, particularly where wind-loaded with thicker slabs and more weight over weak facets near the ground.

Moderate winds overnight drifted low density snow into wind slabs that are possible to trigger today. These slabs are likely small, but they could be dangerous if triggered above a terrain trap, or they could trigger a larger avalanche. Easterly winds might have formed these slabs in unusual places. Avoid or minimize time on steep wind loaded slopes ([photo](#)), and carefully assess the snowpack if you plan to travel on slopes steeper than 35 degrees. Large avalanches are possible today and the avalanche danger is [MODERATE](#).

Doug will issue the next advisory tomorrow morning by 7:30 a.m.

We rely on your field observations. Send us an email with simple weather and snowpack information along the lines of what you might share with your friends: How much new snow? Was the skiing/riding any good? Did you see any avalanches or signs of instability? Was snow blowing at the ridgelines? If you have snowpit or test data we'll take that too, but this core info is super helpful! Email us at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com) or leave a message at 406-587-6984.

### Upcoming Events and Education

**Month of January:** Montana Ale Works has chosen the Friends of the Avalanche Center as January's "Round It Up America" recipient. Every time you round-up your bill the change gets donated to the Friends. Pennies equal dollars!

#### BOZEMAN

Wednesday, January 4, **Avalanche Awareness**, 6-7:30 p.m. @ REI

Tuesday, January 10, **Women's Avalanche Awareness and Beacon Practice**, 6-8 p.m., Beall Park

Friday and Saturday, January 13 and 14, **Companion Rescue Clinic**, REI Friday 6 p.m., field Saturday TBA. Register here: <https://events.ticketprinting.com/event/21313>

Tuesday, January 17, **Avalanche Center Forecaster's Social at Montana Ale Works**. A small-plate fare and beer tasting **fundraiser for the Friends**: \$40.00/person; 2 seatings (5:30 p.m. and 7:00 p.m.). Get your tickets [HERE](#).

#### GREAT FALLS

Friday, January 6, **Avalanche Awareness**, 6-7:30 p.m., Hi-Line Climbing Center

#### WEST YELLOWSTONE

Saturday, January 7, **Avalanche Awareness, 7-8 p.m., Holiday Inn West Yellowstone**

#### DILLON

Tuesday, January 10, **Avalanche Awareness**, 6-7:30 p.m., UM-Western Library

#### COOKE CITY

**Weekly rescue training and snowpack update**, 6-7:30 p.m., The Antlers lodge on Friday, field location Saturday TBA.