

## **GNFAC Avalanche Forecast for Mon Jan 12, 2015**

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Monday, January 12, at 7:30 a.m. Today's advisory is sponsored by **Gallatin County Search and Rescue** in partnership with the Friends of the Avalanche Center. This advisory does not apply to operating ski areas.

### Mountain Weather

The Bridger Range picked up 4" of snow during the day yesterday while the mountains south of Bozeman picked up 1-2". This morning, mountain temperatures are in the upper teens to low 20s F and winds are light out of the W-SW. A weak ridge of high pressure will build over the region producing calm conditions and partly cloudy skies. Temperatures will warm into the upper 20s F and winds will remain light out of the west. No snow is expected over the next 24 hours.

### Snowpack and Avalanche Discussion

#### Bridger Range

The Bridger Range was favored heavily during this last storm. Over the twelve hour period from 3am to 3pm yesterday, both Brackett Creek Snotel site and Bridger Bowl picked up eight inches of dense snow totaling one inch of SWE. While the Bridgers have a fairly strong snowpack, one inch of SWE in a twelve hour period is a red flag. This rapid and heavy load will stress any weakness existing in the snowpack.

This latest round of snow fell on a variety of snow surfaces ranging from dry powder to a firm ice crust. Our primary area of concern today is avalanches failing on the new snow/old snow interface. On south facing and lower elevation slopes, a thin to moderate ice crust exists. The new snow may bond well to this surface since the storm came in warm and left cold, but there may also be a thin layer of facets on this crust that would make the new snow more reactive to human triggers.

The most likely areas to encounter unstable snow will be in steep, upper elevation terrain leeward to west-northwest winds. Winds were light during the storm, but I'd imagine favored areas below the ridgelines will be holding pockets of new snow well over a foot deep. These areas will likely produce avalanches under the weight of skier or rider.

A secondary concern is that deeper weak layers still hold the potential to produce avalanches and will be stressed by the new snow. Areas with a thinner snowpack, such as the west side of the Bridger Range, will be most susceptible to this problem.

As the snowpack continues to adjust, human triggered avalanches will be likely on steep, wind load slopes which have a **CONSIDERABLE** avalanche danger. All other slopes have a **MODERATE** avalanche danger.

#### Gallatin Range Madison Range Lionhead area Cooke City

Variable conditions exist in the mountains south of Bozeman. Some slopes are strong and stable, while others hold buried persistent weak layers. It has now been multiple days since the last significant loading event, but instability still exists.

Yesterday, Doug rode in Cooke City and observed a few small avalanches that were triggered over the past week ([photo](#)). While these slides are relatively small, they are big enough to carry or potentially bury a skier or rider. It appears that these avalanches failed on a weak layer buried 1-2 ft. deep.

Avalanches failing on facets near the ground also remain a possibility. The likelihood of this happening continues to decrease over time, but it can't be entirely ruled out ([photo](#), [video](#), [video](#)).

The best approach today is to put the shovel in the snow and assess the snowpack structure before committing to steep terrain. If you find a suspect layer, keep slopes angles below 35 degrees or move to an area with a stronger snowpack.

Today, human triggered avalanches are possible and the avalanche danger is rated [MODERATE](#).

Doug 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](mailto:mtavalanche@gmail.com) or call us at 587-6984.

### **AVALANCHE EDUCATION and EVENTS**

Take a look at our [Education Calendar](#) for all our classes being offered.

**1-hour Avalanche Awareness**, Three Forks, 7 p.m., Tonight, Methodist Church Annex.

**Women's Avalanche Awareness w/ Beacon Practice**, Bozeman, 6:30- 8 p.m., Tuesday, January 13, Beal Park.

**1-hour Avalanche Awareness**, 4 Corners, 7 p.m., Wednesday, January 14, GVSA Groomer Shed.

**1- hour Sidecountry Avalanche Awareness**, Bozeman, 6:30-8 p.m., Wednesday, January 14, REI.

**Companion Rescue Clinic**, Cooke City, 9 a.m.-3 p.m. on Sunday, January 18. More details and registration: <https://www.ticketriver.com/event/13990>

**Introduction to Avalanches with Field Course**, MSU Bozeman, evening lectures 7-9:30 p.m. Wednesday and Thursday, January 21 and 22, with an all-day field session on Saturday or Sunday (your choice). Get more information and register here: <https://www.ticketriver.com/event/13090>

**Advanced Avalanche Workshop with Field Course**, MSU Bozeman, evening lectures 7-9:30 p.m. Wednesday and Thursday, January 28 and 29, with an all-day field session on Saturday. Get more information and register here: <https://www.ticketriver.com/event/12445>

The **Friends of the Avalanche Center** and **Montana Ale Works** are hosting an *Avalanche Forecaster's Beer Social Fundraiser* the evening of January 27<sup>th</sup>. Get more information and buy tickets here: <https://www.ticketriver.com/event/14010>