

## **GNFAC Avalanche Forecast for Sat Jan 7, 2017**

Good Morning. This is Alex Marienthal with the Gallatin National Forest Avalanche Advisory issued on Saturday, January 7<sup>th</sup> at 6:45 a.m. Today's advisory is sponsored by [\*\*Mystery Ranch\*\*](#) and [\*\*Spark R&D\*\*](#). This advisory does not apply to operating ski areas.

### Mountain Weather

Temperatures this morning are below zero F around West Yellowstone and Cooke City, and single digits to low teens F elsewhere. Wind has been out of the west to southwest at 10-20 mph with gusts up to 30 mph. The mountains have not received any new snow since Tuesday. Today, temperatures will be in the teens F and wind will be out of the southwest at 15-20 mph. Cloud cover will increase through the day and the mountains will have 2-3" of new snow by tomorrow morning.

### Snowpack and Avalanche Discussion

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

[Lionhead area near West Yellowstone](#) [Cooke City](#)

The snowpack throughout the advisory area has multiple layers of weak sugary snow. Yesterday at Buck Ridge we found a weak snowpack and saw evidence of avalanches that broke on facets near the ground within the past week ([video](#)). Weak facets at the base of the snowpack are buried by 2-6 feet of snow and avalanches on this layer remain possible. Additionally, recent cold temperatures formed weak snow near the surface of the snowpack. Where snow depth is shallow (2-3 feet) the entire snowpack is faceted, sugary and weak. This weak snow will struggle to support new snow and wind slabs during the forecasted storm.

Without recent snow and wind-loading it is more difficult to trigger an avalanche on facets near the ground. Although these avalanches are less likely they present a tricky situation. The probability is low, but consequences are high. Obvious signs of instability are infrequent, and multiple riders could travel over an unstable snowpack before the slope is triggered by an unlucky rider. These large avalanches are more likely in terrain where slab thickness varies over a short distance ([video](#)). Dig a hole to look for weak snow before committing to steep terrain, and consider the consequences of a large avalanche.

Wind slabs are also possible today and will be easier to trigger where recently formed over weak snow near the surface. These slabs are likely near ridgelines and below convex slopes and cliff bands. Wind loaded slopes will be the most likely place to trigger an avalanche due to thick slabs and more weight over buried weak layers. Small slabs can be deadly in high consequence terrain and can trigger larger, more destructive avalanches.

Today wind-loaded slopes and slopes steeper than 35 degrees have a [\*\*MODERATE\*\*](#) avalanche danger. Less steep, non-wind loaded slopes have a [\*\*LOW\*\*](#) avalanche danger.

Sadly, there have been [\*\*six avalanche fatalities\*\*](#) over the past four weeks in the western U.S. Many of these have been experienced backcountry skiers, and occurred during various levels of danger. Cautious route finding, careful snowpack assessment, and conservative decision making are still essential despite decreased danger. The season is young, the snowpack is shallow and weak, and uncertainty is high. When uncertainty in snow stability is high, lower the consequences of the terrain.

I 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

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

Wednesday, January 11, **Avalanche Conditions and Awareness for Snowmobilers**, 6:30-7:30 p.m., Gallatin Valley Snowmobile Association groomer shed at 4-corners.

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](#).

#### COOKE CITY

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

#### 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.