

## **GNFAC Avalanche Advisory for Sun Jan 10, 2016**

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, January 10, at 6:40 AM. Today's advisory is sponsored by [Grizzly Outfitters](#) in partnership with the **Friends of the Avalanche Center**. This advisory does not apply to operating ski areas.

### Mountain Weather

Yesterday, the mountains picked up a trace to one inch of new snow. This morning, temperatures range from the single digits to low teens F under partly to mostly cloudy skies. Winds are blowing 5-15 mph out of the W-SW with the exception of the Bridger Range where winds are blowing 15-30 mph. Today, temperatures will warm into the mid-teens to low 20s F and skies will remain partly cloudy. Winds will continue to blow 5-15 mph and will shift to the W-NW by this afternoon. Gusts upwards of 30 mph are possible along exposed ridgetops. A dry weather pattern will remain over the area for the next 24 hours.

### Snowpack and Avalanche Discussion

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

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

Buried depth hoar is not a straight forward problem. On some slopes this layer has gained strength and is unlikely to produce avalanches. On other slopes this layer remains weak and capable of propagating a fracture ([video](#)). What makes this problem especially tricky is it often requires finding the right spot on a slope to trigger an avalanche. These spots are known as trigger points, which are commonly found near rocky outcrops, tree islands or areas where the slab margins are thinner. During these types of conditions, it's not unusual for multiple skiers or riders to hit a slope before someone triggers a slide.

On Friday, the fourth snowmobiler up a slope in Tepee Basin found a trigger point and remotely triggered a slab avalanche from low on the slope ([photo](#)). The rider who triggered the slide was not caught, but a party member lower on the slope was hit by the debris which buried his sled. Fortunately nobody was injured.

This incident is bull's eye information that facets near the ground are still capable of producing dangerous avalanches. Impacting this weak layer is becoming difficult due to a dense overlying slab, but as demonstrated by Friday's avalanche, this layer continues to produce unstable conditions ([video](#), [video](#)). The best way to manage the uncertainty of buried depth hoar is to be conservative with your terrain selection and to treat every steep slope as if it could slide.

An additional avalanche problem to look out for today will be wind slabs. This problem is mainly confined to upper elevation slopes leeward to westerly winds. Yesterday, skiers on Saddle Peak triggered pockets of wind drifted snow that broke 1-2 feet deep. With windy conditions in the Bridger Range this morning, I expect wind slabs to be a growing problem in this area. This problem will be most dangerous in steeper and more consequential terrain. Wind slab avalanches also make great triggers for larger slides failing on weak snow near the ground.

Today, heightened avalanche conditions exist and human triggered avalanches remain possible. For this reason the avalanche danger is rated [\*\*MODERATE\*\*](#).

I will issue the next advisory tomorrow morning by 7:30 a.m. If you have any snowpack or avalanche observations to share, drop us a line at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com) or leave a message at 587-6984.

## **EVENTS and AVALANCHE EDUCATION**

*A complete calendar of classes can be found [HERE](#).*

**EVENT in Bozeman:** January 19, 5:30-7 p.m. and 7:30-9 p.m., *Avi Center Beer Social at Montana Ale Works*. This event is a fundraiser for the Friends of the Avalanche Center, \$35. Tickets here: <https://www.ticketriver.com/event/18542>

**EVENT at BRIDGER BOWL:** February 6, *King and Queen of the Ridge*. A day of hiking and skiing the Ridge as a fundraiser for the Friends of the Avalanche Center. Teams and individuals are welcome! More info here: <http://bridgerbowl.com/event/king-and-queen-of-the-ridge>

**Bozeman:** January 13, *Ihr Avalanche Awareness*, REI, 6-7:30 p.m.

**Four Corners:** January 13, *Ihr Avalanche Awareness for Snowmobilers*, GVSA Groomer Building, 7-8 p.m.

**West Yellowstone:** January 9, 23, and 30, *Ihr Avalanche Awareness*, West Yellowstone Holliday Inn, 7-8:30 p.m.

**Livingston:** January 14, *Ihr Avalanche Awareness*, Neptune's Brewery, 6-7:30 p.m.

**Cooke City:** January 16, *Ihr Avalanche Awareness*, Visitor's Center, 6-7:30 p.m.

January 30, *Companion Rescue for Snowmobilers*, <https://www.ticketriver.com/event/18078>

**Dillon:** January 19, *Ihr Avalanche Awareness*, UM Western Library, 6:30-8 p.m.

January 23 and 24, *Intro to Avalanches w/ Field Course*, <https://www.ticketriver.com/event/18441>

### ***ASMSU Intro to Avalanches w/ Field Course***

January 20, 21 and 23 or 24: <https://www.ticketriver.com/event/16861>

The workshops will be held on Wednesday and Thursday evenings, with a field course on either Saturday or Sunday. Different topics will be presented each evening. Topics include: avalanche terrain recognition, the effect weather has on avalanche hazard, the development of the mountain snowpack, decision making skills, and basic search and rescue procedures.

### ***Advanced Avalanche Workshop w/ Field Course***

January 27, 28, and 30: <https://www.ticketriver.com/event/16862>

Course content includes: snowpack metamorphism, the mechanics of avalanche failure and fracture, and decision-making. Different topics are covered each evening session. The field session includes snowpack analysis and avalanche rescue scenarios.