## **GNFAC** Avalanche Forecast for Sat Jan 9, 2016

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Saturday, January 9, at 6:51 AM. Today's advisory is sponsored by the <u>Katabatic Brewery</u> and <u>Bridger Bowl</u>. This advisory does not apply to operating ski areas.

## Mountain Weather

Overnight the mountains around Big Sky picked up 2-4 inches of new snow, while all other areas picked up 1-2 inches. At 4 a.m. temperatures range from the single digits to low teens F and winds are blowing 5-15 mph out of the W-NW. Today, a weak northerly flow aloft will continue to produce a slight chance of mountains snow showers, but no real accumulation is expected. Highs today will warm into the mid-teens to low 20s F and winds will continue to blow 5-15 mph out of the W-NW with some stronger gusts possible along the ride tops. No significant snowfall is expected over the next 24 hours.

Snowpack and Avalanche Discussion

Bridger Range Madison Range Gallatin Range

Lionhead area near West Yellowstone Cooke City

Assessing stability can be difficult with the current snowpack situation. Signs of instability such as cracking and collapsing along with recent avalanche activity have been declining, which has allowed skiers and riders to feel more comfortable traveling in avalanche terrain. However, a layer of depth hoar buried deep in the pack still exists throughout our forecast area and remains a problem.

Yesterday, a snowmobiler riding in Teepee Basin in the southern Madison Range remotely triggered a large slide

(**photo**). He was the third rider to ascend the slope and triggered the slide roughly half way up his climb. The slope he was climbing was not steep enough to avalanche, but it was attached to larger-steeper slope above. He was able to impact the weak layer which propagated upslope, releasing a large slab avalanche from the steeper terrain. The rider who triggered the slide continued his climb and was the not caught. However, a party member located lower on the slope was hit by the slide which completely buried his sled. Fortunately, the rider that was hit was not buried and uninjured.

This incident is bull's eye information that weak facets near the ground are still capable of producing large and dangerous avalanches. Impacting this weak layer is becoming more difficult due to the dense overlying slab, but as demonstrated yesterday, this layer still has the capability of propagating a fracture (video, video). A tricky part about the current snowpack situation is the increasing level of variability (video). On some slopes the facets near the ground are getting stronger, while on others they remain weak and nasty. The best way to manage this problem 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 will be wind slabs. This problem is mainly confined to upper elevation slopes leeward to westerly winds. Fresh wind slabs may be resting over a layer of near surface facets, which will make them especially touchy to human triggers (**video**). Triggering a wind slab has the potential to

step down to weak snow near the ground, producing a larger and more dangerous avalanche.

Today, weak layers and wind slabs make human triggered avalanches possible and 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 or leave a message at 587-6984.

## **EVENTS and AVALANCHE EDUCATION**

A complete calendar of classes can be found <u>HERE</u>.

**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: TONIGHT, Companion Rescue Clinic, REI, Fri 6-8p.m., Sat 10a.m.-2p.m.

January 13, *1hr Avalanche Awareness*, REI, 6-7:30 p.m.

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

<u>West Yellowstone</u>: January 9, 23, and 30, *1hr Avalanche* Awareness, West Yellowstone Holliday Inn, 7-8:30 p.m.

Livingston: January 14, *1hr 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, *1hr 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

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.