

## **GNFAC Avalanche Advisory for Sat Dec 6, 2014**

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Saturday, December 6 at 7:30 a.m. Today's advisory is sponsored by [Montana Ale Works](#) in partnership with the **Friends of the Avalanche Center**. This advisory does not apply to operating ski areas. Bridger Bowl is now open for the season and uphill travel is not allowed.

### Mountain Weather

Winter has taken a brief hiatus making way for almost spring like conditions. At 4 a.m. temperatures are in upper 20s to low 30s F and winds are blowing 10-20 mph out WSW with stronger gusts along the ridgelines. Today, temperatures will warm into the upper 30s F under partly cloudy skies and winds will gradually increase out of the WSW. A weak weather disturbance will move into the area this evening producing mostly cloudy skies, stronger winds and a slight chance of snow. The mountains around Big Sky, West Yellowstone and Cooke City will likely see an inch of snow by tomorrow morning.

### Snowpack and Avalanche Discussion

#### Cooke City

The mountains around Cooke City have the deepest snowpack in our forecast area. Currently, [Fisher Creek Snotel](#) site has a settled base depth of four feet. This thick blanket of snow consists of multiple layers. The upper and middle portions of the pack are comprised of layers that are well bonded and strong; creating a thick and dense slab. This slab is resting on a layer of weaker, faceted crystals that exist about a foot off the ground.

This persistent weak layer exists on all aspects and elevations and has produced unstable results in stability tests over the past few days. This same layer was responsible for an avalanche [fatality](#) and full burial that occurred last week. As the slab grows in thickness and density, cracking/collapsing are becoming less present and it's becoming harder to initiate a fracture in this layer. However, if a skier or rider does manage to impact this layer, it's still capable of producing large and dangerous avalanches.

For this reason - human triggered avalanches remain likely on slopes steeper than 35 degrees which have a **[CONSIDERABLE](#)** avalanche danger. Less steep slopes have a **[MODERATE](#)** avalanche danger.

#### Bridger Range Gallatin Range Madison Range Lionhead area near West Yellowstone

Warm weather and the lack of snow has helped weak layers near the ground gain strength ([video](#)). The one exception to this positive trend is upper elevation slopes facing the north half of the compass. On these slopes, faceted snow formed in early November is weaker and more developed than on southerly aspects. High north facing slopes also have a thicker slab sitting on these facets providing a better recipe for avalanches.

Yesterday, I travelled to the Yellowstone Club and investigated the snowpack with the YC Ski Patrol. There has been no control work done this season and we experienced a pure backcountry snowpack. We dug snowpits on a NE facing slope around 9,300 ft. and consistently got unstable results in our stability tests ([snowpit](#)). However, it was taking hard force to get columns to fail, which is a good indicator that avalanches are becoming harder to trigger. These conditions are consistent with those found in Beehive and Middle Basin over the past few days.

As warm and mostly dry conditions prevail, it will become increasingly difficult to trigger avalanches. However, buried facets continue to make human triggered avalanches possible and the avalanche danger is rated **MODERATE**.

I 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.

Have a Smartphone or Tablet? The Friends of the Avalanche Center just published two FREE apps so you can get the latest avalanche information, videos and photos: [iOS 8 GNFAC App](#); [Android app](#)

### **AVALANCHE EDUCATION and EVENTS**

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

**Avalanche Awareness (1-hour), Wednesday, December 10, 6:30 p.m. at REI, Bozeman**

**Avalanche Awareness (1-hour), Thursday, December 11, 6 p.m. at Summit Motorsports, Bozeman**

**Weather Workshop, Thursday, December 11, 6:30 p.m. at REI, Bozeman**

**Fundraiser at Katabatic Brewing, Tuesday, December 16, 4-8 p.m., Livingston**

**Avalanche Awareness and Beacon Practice, Wednesday, December 17, 6:30-8:30 p.m. at Beall Park, Bozeman**

**Snowmobiler Introduction to Avalanches with Field Course**

West Yellowstone: Dec 18 and 19, 2014: <https://www.ticketriver.com/event/12955>

Five hours of lectures are followed by a full day field course. Topics covered include: avalanche terrain recognition, the affect weather has on avalanche hazard, the development of the mountain snowpack, decision making skills, and basic search and rescue procedures.