

## **GNFAC Avalanche Advisory for Fri Jan 17, 2014**

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Friday, January 17 at 7:30 a.m. **Montana Import Group**, in partnership with the **Friends of the Avalanche Center**, sponsors today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

A ridge of high pressure will bring warm, sunny weather today and through the weekend. This morning mountain temperatures were in the 20s F with the mountains near Cooke City in the low teens F. A few valley locations like West Yellowstone had temps in the single digits F. Winds were blowing 10-15 mph gusting to 30 mph from the WNW. Today will be a lot like yesterday but maybe a little warmer and winds will remain unchanged.

### Snowpack and Avalanche Discussion

Bridger Range Gallatin Range Madison Range

#### Lionhead area near West Yellowstone

Yesterday I was fooled by the snowpack when we unintentionally triggered an avalanche by dropping a cornice above the Dogleg Chute just north of Bridger Bowl. We found stable snow in several snowpits and hadn't seen or heard of any recent avalanche activity. Feeling good about stability, and just before we started to ski, we dropped a piece of cornice. When it triggered a large avalanche my jaw dropped and I wanted to throw up. This slide broke on facets about a foot above the ground which were obvious in the crown ([video](#), [photos](#)). It was triggered near a thin spot in the slab ([crown snowpit](#), [trigger point snowpit](#)).

From Bozeman to Big Sky to West Yellowstone, this faceted layer is widespread. There are two problems with this layer. (1) It is now buried 3-4 feet deep or more and capped by a supportable slab of snow. This slab means avalanches on this layer will be large; however, they are also getting harder to trigger. (2) This layer is slowly gaining strength. Unfortunately it is gaining strength at different rates on different slopes. Yesterday we found many places where this layer was very strong and not a concern. 30 feet away from the avalanche we triggered, this layer wouldn't even break in stability tests.

In some places like Lionhead this layer is very weak and obvious on many slopes. Several avalanches were triggered on this layer on Tuesday on Lionhead ([photo](#)). Another occurred near Cabin Creek on Wednesday ([photo](#)). In other places like the Bridger Range, it is strong on some slopes and weak on others. Good places to find it are steep, rocky areas like this [one](#) at Big Sky. Assume this layer exists until proven otherwise by overwhelming evidence. Even then, be weary and choose slopes that won't carry you into trees, over rocks, or into gullies if they slide. Also, avoid hard wind slabs formed early this week. These wind slabs alone can produce an avalanche.

For today, the avalanche danger is rated **CONSIDERABLE** on all wind-loaded slopes AND on all slopes steeper than 35 degrees. Lower angled slopes without a wind-load have a **MODERATE** danger.

#### Cooke City

The mountains near Cooke City have consistently received more snow than other areas (no surprise). While this area had a layer of facets that produced many avalanches in December, it is now buried deeply, gained significant strength, and not much of a concern. The main problem is simply that a lot of snow has fallen in the last week. This new snow has given recent winds plenty of ammo to form fresh wind slabs and drifts. These wind slabs are the primary avalanche problem in this area. Today the avalanche danger is rated **CONSIDERABLE** on all wind-loaded slopes. Slopes without a wind-load have a **MODERATE** danger.

Eric 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.

### **MONTANA ALE WORKS FUNDRAISER DINNER, Wednesday, January 22**

On Wednesday, January 22, Montana Ale Works is hosting the 6th Annual Fundraiser Dinner for the Friends of the Avalanche Center. Chef Roth is creating an elegant, multiple course menu. His culinary creation will be paired with wines from the Ale Works cellar. Seating is limited to 40. Get your tickets early.

<https://www.ticketriver.com/event/9572>

### **BACKCOUNTRY SKIERS AND RIDERS NEEDED FOR MSU SURVEY**

This project aims to collect GPS location information and survey responses from backcountry skiers and riders to better understand what types of terrain decision we make. The focus is on backcountry skiers and riders of all abilities and experience. You need not be an expert backcountry skier to participate in this research. For more information and to sign up: [www.montana.edu/snowscience/tracks](http://www.montana.edu/snowscience/tracks)

### **ANDROID APP**

If you have an android phone or tablet, you can download our new free app. It's a slick way to get the advisory. [Search Google Play for GNFAC](#). An iOS version is coming soon. Stay tuned.

### **EVENTS/EDUCATION**

**TOMORROW, January 18, COOKE CITY: Saturday, 6-7 p.m., Community Center, 1-hour Avalanche Awareness lecture.**

January 18 & 19, BOZEMAN: Saturday, 12-4:30 p.m. Bozeman Public Library; Sunday, all day in the field, **Snowmobiler Introduction to Avalanches with Field Course**. Pre-registration is required:

<https://www.ticketriver.com/event/8565-bozeman--snowmo-intro-to-avalanches-w-field>

January 22,23 & 25, BOZEMAN: Wednesday and Thursday 7-9:30 p.m.; all day Sunday in field, **Introduction to Avalanches with Field Course**. Pre-registration is required: <https://www.ticketriver.com/event/7113>

January 22 & 23 & 26, BILLINGS and COOKE CITY: Wednesday and Thursday 6-9 p.m.; all day Sunday in field, **Snowmobiler Introduction to Avalanches with Field Course**. Pre-registration is required:

<https://www.ticketriver.com/event/9380>

January 25, WEST YELLOWSTONE: Saturday, 7-8 p.m. at Holiday Inn, **1-hour Avalanche Awareness lecture.**

More information our complete calendar of events can be found [HERE](#).