

## **GNFAC Avalanche Advisory for Mon Jan 13, 2014**

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Monday, January 13 at 7:30 a.m. [Gallatin River Lodge](#) and [World Boards](#) sponsors today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Over the past 24 hours the mountains around Cooke City received 6 inches of new snow while the mountains around Big Sky picked up 4-5 inches. The Bridger Range and Mountains around West Yellowstone picked up 2-3 inches of new snow. At 4 a.m. temperatures are in the mid-teens to low twenties F and westerly winds are cranking 25-35 mph with stronger gusts reaching over 40 mph. Today, snow will taper off and temperatures will warm into the upper twenties to low thirties F. Strong winds will impact the area throughout the day blowing 25-35 mph out of west-northwest with stronger gusts reaching upwards of 50 mph. A ridge of high pressure will begin to build this evening producing calmer and drier conditions tomorrow.

### Snowpack and Avalanche Discussion

#### Bridger Range Gallatin Range Madison Range

#### Lionhead area near West Yellowstone

We are in the midst of a very impressive avalanche cycle. Heavy snow and strong winds have pushed weak, faceted layers near the ground past their breaking point on many slopes - this in turn has produced widespread natural and human triggered avalanches.

Below are a few of the more notable avalanche events that have occurred over the past few days:

- On Friday, a motorist was nearly hit by a slide that crossed the road on Montana Highway 287 near Quake Lake in the Southern Madison Range.
- On Friday, a skier triggered a large slide on an east facing slope in Beehive Basin in the Northern Madison Range ([photo](#), [video](#)).
- On Saturday, heavy snow and strong winds produced numerous natural avalanches in the Cooke City area.
- On Sunday, Doug and I rode into the Lionhead area near West Yellowstone and observed a large natural slide that occurred directly below the ridge. This slide broke 2-6 feet deep and failed on facets near the ground ([photo](#), [video](#)).
- On Sunday, skiers observed a massive full depth avalanche that had occurred on the east face of Mt. Blackmore in the northern Gallatin Range. This slide took the entire winter snowpack and snapped mature trees in its path ([photo](#)).
- On Sunday, a snowmobiler remotely triggered an avalanche from almost 400 feet away on Slatts Hill in the Buck Ridge area of the northern Madison Range. The crown of this slide broke up to 6 feet deep and occurred on a heavily wind-loaded slope.
- On Sunday, a skier observed natural avalanche activity on the south shoulder of Saddle Peak in the Bridger Range ([photo](#)).

Recent avalanche activity is the number one sign the snowpack is unstable. Without a break in the weather, buried weak layers will remain stressed from new and wind-blown snow.

Today, relentless winds out the west will continue to strip some slopes and heavily load others. Slopes below ridgelines or on the leeward side of cross loaded terrain features will be likely areas to produce avalanches.

It's hard to imagine slopes not being affected by the wind, but they do exist. With such a weak snowpack, it will be possible to trigger avalanches on non-wind loaded slopes. Pay close attention to your slope angle and always be thinking about the consequences of an avalanche.

Today, very dangerous avalanche conditions exist on wind loaded slopes which have a **HIGH** avalanche danger. Slopes without a wind load have a **CONSIDERABLE** avalanche danger.

### Cooke City

The mountains around Cooke City remain a moisture vacuum – sucking every bit of snow out of each passing storm. The four day snow total for this area is impressive. Fisher Creek Snotel site has recorded over three inches of SWE (snow water equivalent) since last Thursday totaling close to three feet of snow. This abundant amount of snow has been accompanied by fierce westerly winds.

Although the snowpack in this area is stronger, the sheer volume of snow will produce dangerous avalanche conditions. Today, the primary avalanche concern will be wind loaded slopes. With such an intense wind event, there will be very few slopes that have not been affected.

Wind loaded slopes will not be confined to upper elevation terrain. It will be possible to trigger wind slabs in the trees and along cross loaded terrain features on mid elevation slopes. These types of conditions can produce unusual avalanches, especially in unassuming terrain.

Today, the avalanche danger is rated **HIGH** on all wind loaded slopes. Non-wind loaded slopes have a **CONSIDERABLE** avalanche danger.

Doug 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.

### **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.

### **MONTANA ALE WORKS FUNDRAISER DINNER**

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>

### **EVENTS/EDUCATION**

Today, DILLON: Monday, 7-8 p.m., School of Outreach, **1-hour Avalanche Awareness** lecture.

January 15, BOZEMAN: Wednesday, 6:30-7:30 p.m., MSU Procrastinator Theater, **Sidecountry IS Backcountry** lecture.

January 16, BOZEMAN: Thursday, 6-8 p.m., Beall Park, **1-hour Avalanche Awareness and Transceiver Practice**.

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 Saturday 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](#).