

## **GNFAC Avalanche Forecast for Sun Jan 12, 2014**

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, January 12 at 7:30 a.m. [Grizzly Outfitters](#) in partnership with the [Friends of the Avalanche Center](#) sponsors today's advisory. This advisory does not apply to operating ski areas.

### **AVALANCHE WARNING**

The Gallatin National Forest Avalanche Center is issuing a **Backcountry Avalanche Warning for the southern Gallatin Range, Southern Madison Range, Lionhead area near West Yellowstone and Cooke City**. Heavy snowfall over the past three days has created highly unstable conditions. In addition to the new snow, strong winds have transported snow onto leeward slopes causing additional stress. Weak facets near the ground will be unable to support this new load making both natural and human triggered avalanches likely. **The avalanche danger is rated [HIGH](#) on all slopes in the southern Gallatin Range, southern Madison Range, Lionhead area near West Yellowstone and Cooke City**. Very dangerous avalanche conditions exist. Travel in avalanche terrain is not recommended and avalanche runout zones should be avoided.

### Mountain Weather

What a storm! Over the past 24 hours the mountains around Cooke City have received well over a foot of snow totaling 1.5 inches SWE (snow water equivalent). The mountains around West Yellowstone including the southern Madison Range received close to a foot of snow totaling 1 inch of SWE while the mountains around Bozeman and Big Ski picked up around three inches of snow totaling .3 inches of SWE.

The one element that has not been spared is WIND! Consistent winds of 20-30 mph out of the west-southwest have been blowing all night with gusts close to 50 mph being recorded in most locations. Today, winds will decrease slightly, but will pick back up this afternoon.

This morning temperatures are in the mid-teens to low twenties F under partly to mostly cloudy skies. Precipitation has shut off, but there is an increasing chance of mountain snow showers later in the day. Highs will warm into the upper twenties F and winds will continue to blow 20-40 out of the west-southwest. 1-2 inches of snow is possible in the northern mountains and 3-5 inches in the southern mountains by tomorrow morning.

### Snowpack and Avalanche Discussion

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

[Lionhead area near West Yellowstone](#)

The snowpack is coming unglued. If there was ever a day to stay out of the backcountry - today is it. I recommend watching football, reading a book or going to the movies - in other words stay out of avalanche terrain.

Over the past three days [Madison Plateau](#) Snotel site has recorded 1.6 inches of [SWE](#) while [Carrot Basin](#) Snotel site in the southern Madison Range is up to 1.8 inches of SWE. This rapid and heavy load has been deposited on a weak and fragile snowpack.

The new snow alone is enough to create highly unstable conditions - this combined with hurricane force winds makes natural and human triggered avalanches likely on all slopes. It will be possible to trigger avalanches from a distance and in low angle terrain with larger slopes above. All avalanche terrain including avalanche runout zones should be avoided.

Today, travel in avalanche terrain is not recommended and the avalanche danger is rated [\*\*HIGH\*\*](#) on all slopes.

### Cooke City

The mountains around Cooke City have a stronger snowpack than the mountains around West Yellowstone. However, even the strongest snowpack can be broken. Over the past three days this area has received close to three feet of snow totaling nearly three inches of SWE – a massive load for any snowpack to bear.

Yesterday, a skier observed widespread natural avalanche activity; bull's eye data the snowpack is unstable. If the snowpack cannot support the weight of new snow, there is no question it can't support the weight of a skier or rider.

Today, the avalanche danger is rated [\*\*HIGH\*\*](#) on all slopes. Natural and human triggered avalanches are likely and avalanche terrain including avalanche runout zones should be avoided.

### Bridger Range Northern Gallatin Range

#### Northern Madison Range

The mountains around Bozeman and Big Sky have not received as much snow as down south, yet natural and human triggered avalanches continue to occur. Yesterday, while checking out the human triggered slide that took place in Beehive Basin on Friday ([photo](#), [video](#)), Mark and I observed a large natural slide that ripped out on the west facing side of the basin ([photo](#)). This slide occurred minutes before we arrived and was the result of heavy wind loading.

Skiers in Hyalite also observed recent avalanche activity up Flanders Drainage yesterday. One avalanche produced a crown nearly eight feet deep. We received very few reports from the Bridger Range, likely due to the wild conditions. Check out this crazy [video](#) from the ski resort. If conditions were too dangerous to ride the chairs, I'm guessing they were too dangerous to ski in the backcountry.

The problem is – facets near the ground remain weak and unable to support the load of new and wind-blown snow. This layer formed over a month ago and is showing very few signs of getting stronger. The issue now is – this layer is now getting buried deeper and avalanches are becoming larger and more dangerous.

Any slope that has received a recent wind load (which is most slopes) will be the most susceptible to producing avalanches.

Today, natural and human triggered avalanches are likely on wind loaded slopes which have a [\*\*HIGH\*\*](#) avalanche danger. Non-wind loaded slopes have a [\*\*CONSIDERABLE\*\*](#) avalanche danger.

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.

### **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**

January 13, 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](#).