

## **GNFAC Avalanche Advisory for Fri Dec 2, 2016**

Good Morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Friday, December 2<sup>nd</sup> at 7:30 a.m. Today's advisory is sponsored by [Grizzly Outfitters](#) in partnership with the Friends of the Avalanche Center. This advisory does not apply to operating skier areas.

### **AVALANCHE WARNING**

The Gallatin National Forest Avalanche Center is issuing a Backcountry Avalanche Warning for the Bridger Range and Northern Gallatin Range. Heavy snow has added weight and stress to weak and unstable snowpack. The avalanche danger is rated **HIGH** on all slopes. Natural and human triggered avalanches are likely today. Avalanche terrain and avalanche runout zones should be avoided. This warning will either expire or be updated by 6:00 a.m. on December 3<sup>rd</sup>, 2016.

#### Mountain Weather

A favorable northwest flow produced heavy snow in the northern mountains. The Bridger Range and Northern Gallatin Range (Hyalite) are reporting 8-12 inches overnight with higher amounts likely at upper elevations. The mountains around Big Sky (northern Madison Range) picked up 3-5 inches. The mountains around Cooke City and West Yellowstone were not favored by this storm. These areas picked up a trace to 1 inch. At 5 a.m. snow is tapering off and temperatures range from the single digits to low teens F. Winds are blowing 5-15 mph out of the W-NW. Today, skies will gradually clear and highs will warm into the teens to mid-20s F. Winds will remain light to moderate out of the W-NW. No significant snowfall is expected today, but snow showers could redevelop by tomorrow morning.

#### Snowpack and Avalanche Discussion

##### Bridger Range Northern Gallatin Range

What a pleasant surprise! The mountains around Bozeman got hammered with snow overnight.

Shower Falls Snotel site in the northern Gallatin Range is showing 12" of new snow totaling close to 1" of SWE. Brackett Creek Snotel site in the Bridger Range is recording 7" of new snow totaling .3" of SWE. The weather stations at Bridger Bowl are currently down, but I wouldn't be surprised if snow totals are +12" in the upper elevations of the Bridger Range.

This rapid and heavy load has been deposited on a weak and unstable snowpack ([video](#)). Yesterday, the Bridger Bowl Ski Patrol reported widespread cracking and collapsing. This is bull's eye information the snowpack structure is poor and will be unable to support the new load. Today, natural and human triggered avalanches will be likely. Travel in avalanche terrain is **not** recommended.

Today, the avalanche danger is rated **HIGH** on all slopes.

##### Northern Madison Range

The mountains around Big Sky did not get hit as hard, but they did receive a respectable amount of snow. Weather stations at Big Sky and the Yellowstone Club are reporting 3-5" of new snow. I wouldn't be surprised if snow totals were higher in favored locations.

The snowpack around Big Sky is weak, but should be able to handle this load reasonably well. Fortunately, winds have been calm, which will help keep avalanche activity to a minimum. However, wind loaded slopes do exist, mainly in alpine terrain. These slopes will be sensitive to human triggers. Winds have primarily blown out of the west-northwest making slopes facing east through south most susceptible to wind loading.

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

Southern Madison Range   Southern Gallatin Range

Lionhead area near West Yellowstone   Cooke City

This southern mountains picked up very little snow out of this storm. Currently, the mountains around Cooke City have 18" to 24" of settled snow on the ground ([video](#), [photo](#)). Without a recent loading event, this snow has had time to settle and adjust. It has been over a week since avalanches have been reported around Cooke City, which is a good indicator the snowpack becoming more stable. However, weak snow does exist in the pack and I would continue to approach steep slopes with caution. We lack sufficient data in this area making it difficult to put out an accurate danger rating.

The mountains around West Yellowstone have the least amount of snow in the advisory area. The shallow pack is weak but not necessarily unstable. Wind loaded slopes directly below ridgelines will be the most prone to producing unstable conditions. Without a wind load, the snowpack is not cohesive enough to produce avalanches ([video](#)).

I will issue the next advisory tomorrow morning at 7:30 a.m. If you have any snowpack or avalanche observations please drop us a line at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com) or leave a message at 406-587-6984.

### [Upcoming Events and Education](#)

#### **BOZEMAN**

6 December, **Avalanche Awareness**, 6-7:30 p.m. at MSU with Backcountry Squatters Ski Club, SUB Procrastinator Theater.

7 December, **Avalanche Awareness**, 6-7:30 p.m. at REI.

15 December, **Avalanche Awareness and Beacon Practice**, 6-8 p.m. at Beall Park.

#### **BUTTE**

**TOMORROW!** 1 December, **Snowmobiling In and Identifying Avalanche Terrain**, 6-7 p.m. at Redline Sports

#### **HELENA**

8 December, **Avalanche Awareness**, 6-7:30 p.m. at The Basecamp.

#### **WEST YELLOWSTONE**

15 and 16 December, **Snowmobile Introduction to Avalanches w/ Field Day**, West Yellowstone Holiday Inn Conference Hotel. More info and sign up [HERE](#).

## **COOKE CITY**

Every Friday and Saturday, **Weekly rescue training and snowpack update**, Cooke City Chamber of Commerce on Friday 6-7:30 p.m. and field location TBA for Saturday.

## **BILLINGS**

15 December, **Snowmobiling In and Identifying Avalanche Terrain**, 6-8 p.m., location TBA