

## **GNFAC Avalanche Advisory for Sun Dec 13, 2015**

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, December 13, at 7:30 a.m. Today's advisory is sponsored by [Alpine Orthopedics](#). This advisory does not apply to operating ski areas.

### Mountain Weather

At 5 a.m. a trace to one inch of new has fallen in the mountains around Big Sky and West Yellowstone. Temperatures range from the mid-teens to low 20s F and winds are blowing 15-30 mph out of the W-SW with gusts near 50 mph being recorded around Big Sky. Today will be a transition day as a strong winter storm moves into the area. Moderate to strong W-SW winds will continue to impact the area and temperatures will warm into the mid to upper 20s F. Light snow will begin to fall by late morning and will increase as the day progresses. The mountains will likely see 1-3 inches of new snow by this evening. Snowfall increases tonight with another 4-6 inches possible by tomorrow morning. Snow will continue tomorrow with another 4-6 inches possible during the day. This storm has the potential to dump a foot or more by Tuesday morning.

### Snowpack and Avalanche Discussion

#### **SNOWPACK AND AVALANCHES**

Cooke City Madison Range Southern Gallatin Range

##### Lionhead area near West Yellowstone

Today, wind loaded slopes will be the main avalanche concern in the mountains around Big Sky, West Yellowstone and Cooke City. Moderate to strong winds out of the W-SW will transport available snow, producing a fresh batch of wind slabs. These wind slabs will be adding stress to weak-faceted snow near the ground, which will make them susceptible to human triggers. Approach all wind loaded slopes with caution today and pay close attention to changing conditions. Strong winds combined with new snow can load slopes very quickly, rapidly increasing the avalanche danger.

Although wind loaded slopes are the main concern, it will be possible to trigger avalanches in non-wind loaded terrain. Weak faceted snow near the ground continues to show signs of instability ([photo](#)). Yesterday, riders in Carrot Basin in the southern Madison Range got unstable results in stability tests ([photo](#)). This snowpack structure is consistent with what Karl Birkeland found in Telemark Meadows on Friday and also what Alex and I found on Buck Ridge ([video](#), [video](#)). With such a weak snowpack structure, it won't take much new snow to tip the scales and produce avalanches.

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

If new snow and strong winds continue through the day, the avalanche danger could rise to [HIGH](#) on wind loaded slopes by this afternoon.

Bridger Range Northern Gallatin Range

The snowpack in the Bridger Range and northern Gallatin Range is bit more stable. This is mainly due to the lack of snow over the past week. However, it will be possible for skiers or riders to trigger older wind slabs near the ridgelines. This instability will be confined to upper elevation terrain leeward to west-southwest winds. The likelihood of triggering a wind loaded slope will increase throughout the day as new snow and wind impact the area. Again – pay close attention to changing conditions and don't be afraid to change plans if instability is on the rise.

Today – human triggered avalanches are possible on wind loaded slopes which have a **MODERATE** avalanche danger. Non-wind loaded slopes have a **LOW** avalanche danger. The avalanche danger could rise to **CONSIDERABLE** on wind loaded slopes by this afternoon.

### **Ice Fest Report:**

The snowpack in Hyalite is variable and contains unstable pockets where wind slabs rest over weak-faceted snow (**video**). If you experience signs of instability such as shooting cracks, I recommend descending or finding an alternative route. Even small avalanches can pose a significant threat in the high consequence terrain around Hyalite.

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

### **EVENTS and AVALANCHE EDUCATION**

A complete calendar of classes can be found **HERE**.

**Bozeman**: December 15, Tuesday, *Avalanche Awareness and Beacon 101*, Beall Park, 6-8 p.m.

**Bozeman**: December 16, Wednesday, *MAP Brewing Fundraiser*, \$1 pint donated to the Friends of the Avalanche Center

**Cooke City**: December 23, *Avalanche Awareness*, Cooke City Visitor's Center, 6-7:30 p.m.

**West Yellowstone**: *Snowmobiler Introduction to Avalanches with Field Course*

December 17 and 18, 2015: <https://www.ticketriver.com/event/17356>