

## **GNFAC Avalanche Forecast for Sat Dec 24, 2016**

Good Morning and Merry Christmas Eve. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Saturday, December 24<sup>rd</sup> at 7:00 a.m. Today's advisory is sponsored by [Montana Ale Works](#) and **Gallatin Valley Snowmobile Association**. This advisory does not apply to operating ski areas.

### Mountain Weather

Overnight the mountains south of Bozeman picked up 2-5" of snow while the Bridger Range remained dry. At 5 a.m. temperatures are in the teens F and winds are blowing 5-20 mph out of the W-SW with gusts in Hyalite pushing 40 mph. Today, skies will be partly to mostly cloudy and temps will warm into the mid to upper 20s F. Winds will continue to blow 10-25 mph out of the W-SW with stronger gusts possible along the ridgelines. The next storm system arrives this evening. By Christmas morning the mountains will likely have 4-6" of new snow.

### Snowpack and Avalanche Discussion

Cooke City   Southern Gallatin Range

Southern Madison Range   Lionhead area near West Yellowstone

The snowpack doesn't care if you're naughty or nice. If you push it in avalanche terrain today you could end up with a lump of coal in your stocking. The main avalanche concern is the weak layer Grinch living near the base of the snowpack. As time goes on, the Grinch (depth hoar) is becoming less active, but still has the potential to steal Christmas.

The avalanche hazard is moving towards a lower probability, higher consequence situation. Watch for and avoid any slope that has been heavily wind loaded and stay off steep, rocky terrain where it will be easier to impact buried weak layers. Any slide that fails on facets near the ground will likely be large and destructive ([photo](#), [photo](#)).

Fresh wind slabs that formed from the new snow overnight will also be a concern. These will be most prevalent on leeward slopes below ridgelines. Avalanches that originate in the new snow have the potential to step down and trigger larger slides.

Today, human triggered avalanches are likely on wind loaded slopes steeper than 35 degrees which have a [CONSIDERABLE](#) avalanche danger. All other slopes have a [MODERATE](#) avalanche danger.

Bridger Range   Northern Gallatin Range

Northern Madison Range

The Grinch (depth hoar) also lives in the snowpack in the northern ranges, but has been less provoked by lower snow totals. On some slopes there isn't enough of a slab to create problems, but on other slopes the recipe for avalanches exists ([video](#), [video](#)). It's always worth digging a quick snowpit and doing a stability test to assess the strength and distribution of buried weak layers. If a weak layer collapses and fully propagates, it should be treated as a sign of instability and steeper slopes should be avoided ([video](#)).

With a few inches of snow overnight and moderate to strong winds out of the W-SW, fresh wind slabs will also be a problem. I don't expect these wind slabs to be exceptionally large, but they could potentially carry a skier or rider into unfavorable terrain. They could also trigger larger slides on weak snow near the ground.

Although human triggered avalanches are becoming less likely in the northern ranges, they do remain possible and the avalanche danger is rated **MODERATE**.

Alex will issue the next advisory tomorrow morning by 7:30 a.m.

We rely on your field observations. Send us an email with simple weather and snowpack information along the lines of what you might share with your friends: How much new snow? Was the skiing/riding any good? Did you see any avalanches or signs of instability? Was snow blowing at the ridgelines? If you have snowpit or test data we'll take that too, but this core info is super helpful! Email us at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com) or leave a message at 406-587-6984.

### **Upcoming Events and Education**

#### **COOKE CITY**

Tuesday, December 27 and Wednesday, December 28, **Weekly rescue training and snowpack update**, 6-7:30 p.m., Soda Butte Lodge on Tuesday, Field location Wednesday TBA.

Every Friday and Saturday, **Weekly rescue training and snowpack update**, 6-7:30 p.m., Soda Butte Lodge on Friday, Field location Saturday TBA.