

# **GNFAC Avalanche Advisory for Sun Dec 25, 2016**

Good Morning and Merry Christmas. This is Alex Marienthal with the Gallatin National Forest Avalanche Advisory issued on Sunday, December 25<sup>th</sup> at 7:15 a.m. Today's advisory is sponsored by [\*\*Spark R&D\*\*](#) and [\*\*Bridger Bowl\*\*](#). This advisory does not apply to operating ski areas.

## Mountain Weather

It is a white and wintry Christmas. At 4 a.m. the mountains near Bozeman and Big Sky received 1-2" of new snow, the southern Madison Range and West Yellowstone got 3-5" of snow, while Cooke City got a lump of coal (0"). Temperatures this morning are in the single digits to teens F. Wind yesterday was 15-20 mph with gusts of 30-40 mph. Wind this morning decreased to 0-5 mph out of the north to northeast and will remain northerly at 5-15 mph today. Temperatures will drop to the single digits F this afternoon. The mountains will get 2-4" of snow by tonight.

## Snowpack and Avalanche Discussion

### **Southern Madison Range** **Southern Gallatin Range**

#### **Lionhead area near West Yellowstone**

Over the last 48 hours the mountains south of Big Sky and near West Yellowstone received 6-8" of snow equal to .8" of [\*\*snow water equivalent\*\*](#) (SWE). Moderate southeast wind yesterday formed drifts of snow over a weak snowpack. These wind slabs could be up to a foot thick and carry a skier or rider into undesirable terrain, or trigger an avalanche deeper in the snowpack.

A layer of weak sugary facets exists near the base of the snowpack throughout the advisory area. New snow and wind-loading will increase the chances of triggering a large and destructive avalanche on this weak layer today. Obvious signs of instability may not be present, and an avalanche on this weak layer might not be triggered by the first rider on a slope. Look for this sugary weak layer in a snowpit before committing to steep terrain.

Today, wind loaded slopes have a [\*\*CONSIDERABLE\*\*](#) avalanche danger and other slopes have a [\*\*MODERATE\*\*](#) avalanche danger. Cautious route finding is essential. Avoid steep wind loaded slopes and minimize exposure to terrain traps such as trees, cliffs, and gullies.

### **Bridger Range** **Northern Gallatin Range** **Northern Madison Range**

#### **Cooke City**

The mountains near Bozeman, Big Sky, and Cooke City have received less snow over the past 48 hours, but a weak layer of facets near the ground still exists. Avalanches on this layer are possible to trigger and could be large and destructive ([\*\*photo\*\*](#), [\*\*photo\*\*](#)). Careful snowpack and terrain evaluation is essential.

On Friday I found this weak snow in Hyalite ([\*\*video\*\*](#)), and Eric found similar weak, but not unstable conditions at Mt. Ellis on Thursday ([\*\*video\*\*](#)). This weak layer has adjusted to the weight of thick overlying slabs on some slopes, and lacks enough of a slab to be unstable on other slopes. However, there are still slopes with the perfect

recipe to trigger an avalanche on this layer. Avoid recently wind loaded slopes, and assess this layer in a snowpit before committing to steep terrain.

New snow and moderate wind make wind slabs possible to trigger today. Wind out of the east and north could form drifts in unusual places along ridgelines, below cliffs and on convex terrain. Today, avalanches are possible to trigger and the avalanche danger is **MODERATE**.

Have a safe and merry Christmas. I will issue the next advisory tomorrow morning by 7:30 a.m.

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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.

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### [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.