

## **GNFAC Avalanche Forecast for Sat Feb 4, 2017**

Good Morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Saturday, February 4<sup>th</sup> at 7:00 a.m. Today's advisory is sponsored by [Yellowstone Arctic Yamaha and Yamaha Motor Corp](#) in partnership with the [Friends of the Avalanche Center](#). This advisory does not apply to operating ski areas.

### Mountain Weather

Over the past 24 hours the mountains around Cooke City and West Yellowstone received 8-10" of new snow. The southern Madison Range picked up 4-5" while the mountains around Big Sky and Bozeman squeezed out a trace to 1". Currently, it's still snowing in the southern ranges and temps are in the high teens to mid-20s F. Winds are blowing 15-30 mph out of the W-SW with a few ridgetop gusts breaking 40 mph. Today, light snow will continue in the southern ranges with 1-3" possible by this afternoon. No new snow is expected around Big Sky and Bozeman. Highs today will warm into the mid to upper 20s F and winds will continue to blow 15-30 out of the W-SW. Snow tapers off tonight in the south, but another round of moisture will move into the area Sunday night and Monday.

### Snowpack and Avalanche Discussion

Cooke City Southern Madison Range Southern Gallatin Range

#### Lionhead area near West Yellowstone

The southern ranges picked up a healthy shot of snow over the past 24 hours. [Madison Plateau](#) Snotel site near West Yellowstone is showing 8-10" of new snow totaling 1" of SWE (snow water equivalent). [Fisher Creek](#) Snotel near Cooke City is recording 6-8" of snow totaling .8" of SWE and [Carrot Basin](#) in the southern Madison Range is showing 4-5" of snow totaling .5" of SWE. This new snow was accompanied by strong winds out of the W-SW. Today, wind loaded slopes will be the most prone to human triggered avalanches. Slopes below ridgelines and on the leeward side of cross-loaded terrain features will be likely areas to find fresh wind slabs. These fresh slabs will be sensitive to human triggers and should be avoided.

Outside of wind loaded slopes, a few different weak layers have the potential to produce avalanches in non-wind loaded terrain. In the mountains near West Yellowstone, a buried layer of surface hoar is capped by over a foot of snow. This layer doesn't exist on all slopes, which makes it tricky. It's worth digging a quick snowpit to look for this layer before committing to steeper terrain. In the mountains around Cooke City, a thin layer of facets sitting on top of an ice crust can be found on south facing slopes. Yesterday, Doug got this layer to propagate in stability tests on a south facing slope below Daisy Pass. Given the heavy amount of new snow over the past 24 hours, careful snowpack evaluation is essential before skiing or riding any steep slope.

Today, dangerous avalanche conditions exist and the avalanche danger is rated [\*\*CONSIDERABLE\*\*](#) on all slopes.

Bridger Range Northern Madison Range

Northern Gallatin Range

The northern ranges picked up a healthy shot of wind minus the new snow. Yesterday, Alex and I ventured into Hyalite and observed active wind loading in upper elevation terrain. We saw a few small natural avalanches below the ridgelines, but these were isolated in nature and small in size. Today, warmer temps and the lack of new snow will make wind slabs a bit stubborn. However, wind loaded slopes still hold the potential to fail under the weight of skier or rider and should be approached with caution.

A secondary concern will be weak layers buried about a foot below the surface. Yesterday, we found a thin layer of facets sitting over an ice crust on a SE facing slope. This layer did not propagate in stability tests, but we both felt it could produce avalanches with a heavier load ([video](#)). Another layer of concern is buried surface hoar. Doug found this layer on Mt Ellis on Thursday ([video](#), [photo](#)). This layer is not widespread, but should be looked for before committing to steeper slopes.

Today, wind slabs and weak layers make human triggered avalanches possible and the avalanche danger is rated **MODERATE**.

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

**Correction:** On Tuesday's Advisory we wrote that three climbers fell down a couloir on Abiathar Peak when the cornice they were standing on broke. This is incorrect. They were only feet away from the ridgeline when they triggered a very small (6" thick by 5' wide) wind slab that knocked them off balance and sent them tumbling 800' down the couloir.

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**

**Beacon Training Park at Beall:** Open and free to the public for avalanche beacon practice seven days a week from 9 a.m. to 8 p.m., southeast corner of Beall Park in Bozeman.

### **BOZEMAN**

February 7, **Sidecountry and Avalanche Awareness**, 6-7:30 p.m., Beall Park.

February 8, **1-hr Avalanche Awareness**, 7-8 p.m., Roskie Hall, Montana State University.

February 10 and 11, **Companion Rescue Clinic**, REI and field day, more info and register [here](#).

### **WEST YELLOWSTONE**

February 4 and 11, **1-hr Avalanche Awareness**, 7-8 p.m., West Yellowstone Holiday Inn.

### **COOKE CITY**

**Weekly rescue training and snowpack update**, 6:30-7:30 p.m., Cooke City Super 8 on Friday, Lulu Pass Road for field location Saturday (Look for the [yellow sign](#)).

### **DILLON**

February 4 and 5, **Intro to Avalanches with Field Day**, More info and sign up [HERE](#).

## **ENNIS**

February 17, **1-hr Avalanche Awareness**, 6-7 p.m.