

## **GNFAC Avalanche Advisory for Mon Dec 5, 2016**

Good Morning. This is Alex Marienthal with the Gallatin National Forest Avalanche Advisory issued on Monday, December 5<sup>th</sup> at 7:15 a.m. Today's advisory is sponsored by [\*\*Cooke City Super 8/Bearclaw Bob's\*\*](#) and [\*\*Wisetail\*\*](#). This advisory does not apply to operating ski areas.

### **AVALANCHE WARNING**

The Gallatin National Forest Avalanche Center is issuing a Backcountry Avalanche Warning for the mountains near Cooke City, the Lionhead area near West Yellowstone, Southern Madison Range, and Southern Gallatin Range. Heavy snow and strong wind has added weight to a 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.

### Mountain Weather

Over the past 24 hours the mountains near Cooke City received 14" of new snow, with reports of over 2 feet since Saturday. The mountains near West Yellowstone and south of Big Sky got 8-12" of new snow, the Hyalite area received 7", Big Sky got 3-5", and the Bridger Range got 2-3". Wind has been out of the west-northwest with speeds blowing 15-25 mph and gusts between 35 and 50 mph. Temperatures this morning are in the single digits F and will reach the low teens F today. Wind will remain out of the west-northwest with speeds between 10-20 mph. The mountains could get another 2-4 inches of snow before skies clear this afternoon.

### Snowpack and Avalanche Discussion

#### Cooke City

The mountains near Cooke City received over 1.5" of snow water equivalent ([\*\*SWE\*\*](#)) in the last 48 hours. This new snow and strong wind rapidly loaded an unstable snowpack. Prior to this load, buried weak layers and signs of instability such as cracking, collapsing, and natural avalanches were observed. A skier triggered a small, but potentially deadly avalanche yesterday ([\*\*photo\*\*](#)). This avalanche failed within the new snow and shows that avalanches are likely today. The avalanche danger is [\*\*HIGH\*\*](#) on all slopes. Steep terrain and avalanche runout zones should be avoided.

#### Lionhead area near West Yellowstone

#### Southern Madison Range   Southern Gallatin Range

The mountains near West Yellowstone and south of Big Sky harbored a shallow snowpack prior to yesterday's storm ([\*\*video\*\*](#), [\*\*photo\*\*](#)). Data from this area is limited, but this shallow, early season snowpack is likely weak and unable to support the 1.5" of [\*\*SWE\*\*](#) that fell since Saturday. Avalanches are likely today and avalanche Danger is rated [\*\*HIGH\*\*](#). Avoid riding on or beneath steep terrain.

#### Northern Gallatin Range   Northern Madison Range

## Bridger Range

The mountains near Bozeman and Big Sky received .2-.5 inches of [SWE](#) since yesterday. This snow will not greatly increase instability except where the wind drifted snow into deeper, stiffer slabs and added more weight to buried weak layers. An avalanche cycle occurred a few days ago in the Bridger range, in which many slides failed on facets on the ground ([photo](#)). Skiers near Bridger Bowl yesterday found unstable stability test results on this weak layer. This is similar to what Doug and I found ([video](#)), and what Eric found on Saturday. As Eric mentioned in his [video](#), some slopes are stable and some are not, so do your homework (i.e., dig a hole) before committing to steep terrain. Observations indicate the higher you go, the weaker the instability is, so don't be fooled by the snowpack at lower elevations.

Skiers in Beehive and Hyalite mentioned a similar poor snowpack structure, with facets near the ground and unstable test results. Doug triggered a small wind slab in Hyalite on Saturday, and retreated from an ice climb ([video](#), [photo](#), [photo](#)). This slide showed the power of wind-loading as a foot of new snow was drifted into 3-4 foot slabs.

The avalanche danger today is rated [CONSIDERABLE](#) on recently wind-loaded slopes, and [MODERATE](#) elsewhere. Evaluate terrain and snowpack carefully and avoid slopes with recent wind load.

Doug will issue the next advisory tomorrow morning at 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

### 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.

### 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