

## **GNFAC Avalanche Advisory for Sat Jan 17, 2015**

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Saturday, January 17, at 7:30 a.m. Today's advisory is sponsored by [\*\*J.A. Gear\*\*](#) and [\*\*Alpine Orthopedics\*\*](#). This advisory does not apply to operating ski areas.

### Mountain Weather

Over the past 24 hours the mountains around Cooke City picked up seven inches of new snow. The mountains around West Yellowstone and Big Sky picked up 2-4 inches while the mountains around Bozeman remained mostly dry. Currently, mountain temperatures range from the teens to low twenties F and winds are blowing 15-30 mph out of the W-SW. Today, a weak ridge of high pressure will produce mostly clear skies and calm conditions. Temperatures will warm into the upper 20s to low 30s F. This period of nice weather will be short lived as another storm system approaches from the west. By this evening skies will become mostly cloudy and winds will gradually increase. The mountains south of Bozeman could see 1-3 inches of new snow by tomorrow morning with higher amounts likely by tomorrow evening.

### Snowpack and Avalanche Discussion

#### Cooke City

Yesterday's storm dropped seven inches of new snow totaling .5 inches of SWE in the mountains around Cooke City. Winds were strong during the storm blowing predominately out of the west-southwest. Skiers up Hayden Creek south of town observed active wind transport during much of the day yesterday.

While the snowpack around Cooke City is generally strong, this latest round of snow and wind will whip up a fresh batch of wind slabs. This problem will be most widespread in upper elevation terrain leeward to west-southwest winds. I don't expect fresh wind slabs to break far and wide, but they could produce enough volume to carry or potentially burry a skier or rider. Be especially wary of this problem when skiing or riding in steep, high consequence terrain.

An additional problem will be a layer of surface hoar now capped by the new snow. It's likely this layer was destroyed in many areas by strong winds, but it surely survived on some protected slopes. I don't expect this layer to be a major problem today, but it will be a growing concern as the mountains receive more snow.

Today, human triggered avalanches are likely on steep, wind loaded slopes which have a [\*\*CONSIDERABLE\*\*](#) avalanche danger. The avalanche danger is rated [\*\*MODERATE\*\*](#) on non-wind loaded slopes steeper than 35 degrees and [\*\*LOW\*\*](#) on less steep terrain.

#### Bridger Range   Gallatin Range   Madison Range

#### Lionhead area near West Yellowstone

The primary avalanche problem today will be wind slabs ([\*\*photo\*\*](#)). This problem is most prevalent in the mountains around West Yellowstone and Big Sky, which received a few inches of new snow over the past 24 hours. Fresh wind slabs will be relatively small in size and should be easy to recognize and avoid.

Aside from issues in the new snow, the snowpack is looking strong. There still exists a slight possibility of avalanches failing on buried persistent weak layers mid-pack and near the ground, but this threat continues to decrease over time. Our field days in the Bridger Range and southern Madison Range on Thursday, and our visit to Bacon Rind on Wednesday showed that the snowpack continues to gain strength ([video](#)).

The few inches of new snow that fell south of Bozeman may have capped a fresh layer of surface hoar ([photo](#)). It won't be much of a problem today, but will be something to keep an eye out for as we get more snow.

Today, human triggered avalanches are possible on slopes steeper than 35 degrees which have a **MODERATE** avalanche danger. Less steep slopes have a **LOW** avalanche danger.

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

### **AVALANCHE EDUCATION and EVENTS**

Take a look at our [Education Calendar](#) for all our classes being offered.

**Companion Rescue Clinic**, Cooke City, 9 a.m.-3 p.m. on Sunday, January 18. More details and registration: <https://www.ticketriver.com/event/13990>

**Introduction to Avalanches with Field Course**, MSU Bozeman, evening lectures 7-9:30 p.m. Wednesday and Thursday, January 21 and 22, with an all-day field session on Saturday or Sunday (your choice). Get more information and register here: <https://www.ticketriver.com/event/13090>

**Advanced Avalanche Workshop with Field Course**, MSU Bozeman, evening lectures 7-9:30 p.m. Wednesday and Thursday, January 28 and 29, with an all-day field session on Saturday. Get more information and register here: <https://www.ticketriver.com/event/12445>

The **Friends of the Avalanche Center** and **Montana Ale Works** are hosting an *Avalanche Forecaster's Beer Social Fundraiser* the evening of January 27<sup>th</sup>. Get more information and buy tickets here: <https://www.ticketriver.com/event/14010>