

## **GNFAC Avalanche Advisory for Thu Dec 10, 2015**

Good morning. This is Alex Marienthal with the Gallatin National Forest Avalanche Advisory issued on Thursday, December 10, at 7:30 a.m. Today's advisory is sponsored by [Mountain Valley Motorsports of Cody](#) and [Buck Products](#). 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 around Cooke City**. The avalanche danger is rated **HIGH** on all slopes. A foot of dense snow with strong winds fell onto a weak and unstable snowpack. Snowfall and winds are expected to continue today. Natural and human triggered slides are likely. Avalanche terrain and avalanche runout zones should be avoided.

### Mountain Weather

Temperatures this morning are in the teens F, and winds last night were westerly between 20 and 30 mph with gusts up to 60 mph. The mountains near Cooke City received 7-9" of snow and the mountains south of Bozeman and near Big Sky received 2-3" of snow. Less than one inch of snow fell in the Bridger Range and mountains near West Yellowstone. Temperatures today will reach the low 30s F. Wind will be westerly at 20-30 mph with gusts up to 50 mph. The southern ranges will receive 3-4" of snow today with an additional 1-2" tonight, and the northern mountains will get 2-3" by morning.

### Snowpack and Avalanche Discussion

#### Cooke City

Snowfall started yesterday afternoon and by 11 p.m. SNOTEL recorded .9" of **SWE** (at least 7-9" of dense snow). We have not gotten data since then, but assume even more snow has fallen. Winds gusted into the 50s from the SW. Since Monday night the mountains received 2.3" of SWE, which is a lot of weight. This snow fell onto a weak and faceted snowpack. Cracking, collapsing and small avalanches were reported yesterday ([photo](#)) and last night's snow will create dangerous avalanche conditions. For today, I expect natural avalanches and the avalanche danger is rated **HIGH** on all slopes.

#### Madison Range   Gallatin Range   Lionhead area near West Yellowstone

The new snow added .2-.3" of SWE to the snowpack near Big Sky and south of Bozeman. Strong winds over the last few days have transported snow and formed slabs on a weak snowpack. The Big Sky and Yellowstone Club ski patrols have been able to trigger avalanches that stepped down into older layers of weak snow. Results from ski areas this time of year are a good indicator of backcountry stability. These weak layers exist from Hyalite to West Yellowstone ([video](#)). Yesterday, a skier in the Northern Madison Range observed shooting cracks and reported unstable results in stability tests. Avalanches will be possible to trigger where wind slabs rest above weak faceted snow. The avalanche danger today is **CONSIDERABLE** on all wind loaded slopes and **MODERATE** everywhere else.

#### Bridger Range

Wind in the Bridger Range has not been transporting snow, and above freezing temperatures helped strengthen the facets and old wind slabs. Weak faceted snow still exists, and is weaker at higher elevations, but without

recent loading I expect only isolated instabilities on small terrain features. Today the avalanche danger is **LOW**. Triggering an avalanche is still possible, and even a small slide can have high consequences above cliffs or other terrain traps.

### **Ice Fest Report:**

The snowpack in Hyalite is variable and contains unstable pockets where wind slabs rest over weak snow ([video](#)). At the first sign of shooting cracks I recommend descending. Even tiny avalanches can sweep climbers off cliffs or hit people below.

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

### **EVENTS and AVALANCHE EDUCATION**

A complete calendar of classes can be found [HERE](#).

**Helena:** TONIGHT!!, Thursday, *Avalanche Awareness*, The Basecamp, 6-7:30 p.m.

**Bozeman:** December 15, Tuesday, *Avalanche Awareness and Beacon 101*, Beall Park, 6-8 p.m.

**Bozeman:** December 16, Wednesday, *MAP Brewing Fundraiser*, \$1 pint donated to the Friends of the Avalanche Center

**Cooke City:** December 23, *Avalanche Awareness*, Cooke City Visitor's Center, 6-7:30 p.m.

**West Yellowstone:** *Snowmobiler Introduction to Avalanches with Field Course*

December 17 and 18, 2015: <https://www.ticketriver.com/event/17356>

Five hours of lectures are followed by a full day field course. Topics include: avalanche terrain recognition, the affect weather has on avalanche hazard, the development of the mountain snowpack, decision making skills, and basic search and rescue procedures.