

## **GNFAC Avalanche Advisory for Wed Jan 11, 2017**

Good Morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Wednesday, January 11<sup>th</sup> at 7:00 a.m. Today's advisory is sponsored by **Edward Jones** and **Javaman**. This advisory does not apply to operating ski areas.

### **AVALANCHE WARNING**

**ISSUED ON JANUARY 11<sup>th</sup>, 2017 at 6 a.m.**

The Gallatin National Forest Avalanche Center is continuing the Backcountry Avalanche Warning for the mountains around **Cooke City**. Three feet of snow over the past three days combined with strong westerly winds is creating very unstable conditions. 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.

This warning will expire or be updated by 6:00 a.m. on January 12<sup>th</sup>, 2017.

#### Mountain Weather

Since yesterday morning the mountains around Cooke City received 8" of new snow. The mountains around Big Sky and West Yellowstone received 5-7" while the mountains around Bozeman picked up 1-3". At 5 a.m. Bridger Bowl is the cold spot with a temperature of -10 F being recorded at the [Alpine weather station](#). Temperatures in the mountains south of Bozeman range from the single digits to mid-teens F. Winds are currently blowing 10-25 mph out of the W-SW, but gusts upwards of 40 mph were recorded last night. Today, snow will continue in the southern mountains including the Big Sky area where an additional 4-6" will accumulate by tomorrow morning. The mountains near Bozeman will pick up 1-3". Winds will remain out of the W-SW at 10-20 mph and temperatures will warm into the teens to low 20s F.

#### Snowpack and Avalanche Discussion

##### Cooke City

Once again Cooke City is in a league of its own. Over the past 72 hours this area has received nearly 3" of SWE ( [snow water equivalent](#)) totaling roughly 3 feet of snow. This heavy load has been deposited on a weak-old snow surface that formed during the cold snap last week. Yesterday, Doug got fractures to propagate easily in his stability tests on the new snow/old snow interface ( [video](#)). This is an obvious sign of instability and a clear indicator conditions will be touchy on this layer.

In addition to heavy snowfall, strong winds out of the W-SW have formed dense wind drifts on leeward slopes. Today, I expect wind loaded slopes to fail naturally. Weak facets near the ground are also a concern and large avalanches on this layer are possible.

Today, the avalanche danger is rated **HIGH** on all slopes. Avalanche terrain and runout zones should be avoided.

##### Madison Range Southern Gallatin Range

##### Lionhead area near West Yellowstone

Over the past three days the mountains around Big Sky and West Yellowstone have received over a foot of snow totaling 1-1.5" of SWE. The main avalanche concern is the new snow/old snow interface, primarily on wind loaded slopes. Today, I expect wind loaded slopes to fail easily with human triggers.

The story is a little different on non-wind loaded slopes. Yesterday, my partner and I skied near Hebgen Lake and found a mostly non-cohesive snowpack in non-wind loaded terrain ([video](#)). We did not observe any signs of instability and felt comfortable skiing slopes up to 35 degrees. This equation could change today as more snow accumulates. Watch for obvious signs of instability such as cracking and collapsing and avoid steeper slopes where these signs are present. Facets near the ground appear to be getting stronger, but avalanches on this layer can't be ruled out. Slides originating in the new snow have the potential to step down to this layer producing larger and more dangerous slides.

Today, new snow and wind will keep the snowpack on edge making human triggered avalanches likely. For this reason the avalanche danger is rated [\*\*CONSIDERABLE\*\*](#).

### Bridger Range Northern Gallatin Range

Snowfall totals are lower in the mountains near Bozeman, but a few inches of new snow combined with strong westerly winds will make wind slabs the main avalanche concern. Fresh wind slabs will be sitting over a weak, old snow surface making them sensitive to human triggers. In addition to wind loaded slopes, cornices are growing large and touchy. Yesterday, skiers on Saddle Peak had a close call when a large cornice failed nearly missing two skiers. Slides breaking at the ground are less likely but still remain possible.

Today, new snow and wind make human triggered avalanches likely on wind loaded slopes which have a [\*\*CONSIDERABLE\*\*](#) avalanche danger. Non-wind loaded slopes have a [\*\*MODERATE\*\*](#) avalanche danger.

Doug will issue the next advisory tomorrow morning by 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

**Month of January:** Montana Ale Works has chosen the Friends of the Avalanche Center as January's "Round It Up America" recipient. Every time you round-up your bill the change gets donated to the Friends. Pennies equal dollars!

**King and Queen of the Ridge:** A Hike and Ski/Ride-a-Thon fundraising event to support the Friends of the Gallatin National Forest Avalanche Center. Register with Bridger Bowl [HERE](#), make pledges [HERE](#).

### BOZEMAN

**TODAY!** Wednesday, January 11, **Avalanche Conditions and Awareness for Snowmobilers**, 6:30-7:30 p.m., Gallatin Valley Snowmobile Association groomer shed at 4-corners.

Friday and Saturday, January 13 and 14, **Companion Rescue Clinic**, REI Friday 6 p.m., field Saturday TBA. Register here: <https://events.ticketprinting.com/event/21313>.

Tuesday, January 17, **Avalanche Center Forecaster's Social** at Montana Ale Works. A small-plate fare and beer tasting fundraiser for the Friends: \$40.00/person; 2 seatings (5:30 p.m. and 7:00 p.m). Get your tickets [HERE](#).

### **COOKE CITY**

**Weekly rescue training and snowpack update**, 6-7:30 p.m., The Antlers Lodge on Friday, field location Saturday TBA.

### **DILLON**

### **BIG TIMBER**

Tuesday, January 17, **Avalanche Awareness**, 6-7:30 p.m., Sweet Grass County High School.