

## **GNFAC Avalanche Advisory for Sat Dec 31, 2011**

Happy New Year's Eve. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Saturday, December 31 at 7:30 a.m. This advisory is sponsored by Montana FWP Recreation Trails Grant in partnership with the Friends of the Avalanche Center. 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 entire advisory area including the Bridger, Gallatin and Madison Ranges, the Lionhead area near West Yellowstone, the mountains around Cooke City. Heavy snowfall, high winds and an extremely weak snowpack are causing unstable conditions. Avalanches were occurring prior to last night's storm. More are expected. Today the avalanche danger is **HIGH** on all slopes. Areas of unstable snow exist. Natural and human triggered avalanches are likely. Avalanche terrain including avalanche runout zones should be avoided.

### **Mountain Weather**

2011 goes out with a bang with snowfall measured in feet not inches. Since yesterday morning the mountains around Cooke City received 2 feet of snow. The mountains near West Yellowstone, the southern Madison Range, and the Bridger Range received 1 foot of new snow. Yes, that's right the Bridgers got snow! The mountains near Big Sky and Hyalite Canyon received 6-9 inches of new snow. Strong winds continued as well and were blowing 20-40 mph this morning. They were blowing from the SW yesterday afternoon and shifted to the NW this morning. Temperatures were in the low teens F.

Snowfall ended this morning, and today skies will slowly clear allowing some sunshine. Winds will blow 15-20 mph from the WNW with gusts 30-35 mph. Temperatures may drop a bit more into the single digits F.

### **Snowpack and Avalanche Discussion**

The Bridger, Madison and Gallatin Ranges, the Lionhead area near West Yellowstone and the mountains around Cooke City:

Avalanches were occurring yesterday prior to last night's snowfall which started wet and heavy. With nearly a foot of new snow in most areas and 2 feet near Cooke City, more avalanches will occur today. Snowfall amounts may vary with elevation as it was raining yesterday below 7000ft, but the snowpack doesn't care whether it rained or snowed because it all adds weight. More weight means more stress. More stress on the snowpack means more avalanches. Precipitation totals (**SWE**) for the last 72 hours are:

- Cooke City – 4 inches of water (~ 4 feet of snow)
- West Yellowstone – 2 inches of water (~ 2 feet of snow)
- Taylor Fork – 1.9 inches of water (~ 19 inches of snow)
- Hyalite – 1.4 inches of water (~ 14 inches of snow)
- The Bridger Range – 1.5 inches of water (~15 inches of snow)
- Big Sky ~ 1.6 inches of water (~16 inches of snow)

Yesterday the Yellowstone Club Ski Patrol and the Big Sky Ski Patrol triggered large avalanches that broke near the ground. Some of these broke on slopes that had already avalanched weeks ago, and one broke as a patroller approached the slope before he deployed an explosive. These slides indicate that the snowpack was finally

pushed to its breaking point.

Eric was near Lulu Pass outside Cooke City yesterday where he triggered a small slope and observed lots of collapsing and cracking. A skier near Miller ridge remotely triggered a small slide then observed a much larger natural avalanche nearby ([photo](#)). Near West Yellowstone, a skier north of town remotely triggered a small avalanche ([photo](#)) and a snowmobiler south of town observed collapsing and cracking and a few natural avalanches.

In Hyalite Canyon, the snowpack has generally been stronger, and just before Christmas it was able to support the load of 15 inches of snow (about 1 inch of [SWE](#)) with few avalanches. Last night's snowfall and recent high winds will still mean you should be very cautious and I do expect some avalanche activity in that area. HOWEVER, many other places in the northern Gallatin Range like Mt Ellis have a very weak snowpack. Let's not forget about the Bridger Range. The snowpack is very, very weak and it received a rapid heavy load last night. There should be many avalanches in the Bridgers today.

For today, very dangerous avalanche conditions exists and travel in avalanche terrain or avalanche runout zones is not recommended. Natural avalanches are likely and human triggered avalanches are very likely and a [HIGH](#) danger exists on all slopes.

Eric 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.

## EVENTS/EDUCATION

To check out all our education programs: <http://www.mtavalanche.com/workshops/calendar>

### BOZEMAN

[Women's 1-hour Avalanche Awareness Lecture.](#) Wednesday, January 4, 6:30- 8 p.m. at REI.

[Snowmobiler Introduction to Avalanches with Field Course.](#) Lectures on Saturday, January 7, with an all day field session Sunday, January 8. Advanced registration IS REQUIRED.

[1-hr Avalanche Awareness Lecture.](#) Wednesday, January 11, 6:30-7:30 p.m at REI.

### BIG TIMBER

[1-hr Avalanche Awareness Lecture.](#) Tuesday, January 10, 7-8 p.m at Big Timber High School.

### HELENA

[1-hr Avalanche Awareness Lecture.](#) Thursday, January 12, 6:30-8:30 p.m at Exploration Works.

### CODY, WYOMING

[Snowmobiler Introduction to Avalanches with Field Course.](#) Lectures on Saturday, January 14 at Mountain Valley Motorsports with an all day field session near Cooke City on Sunday, January 15. Advanced registration IS REQUIRED.

### BILLINGS

Snowmobiler Introduction to Avalanches with Field Course. Lectures on Tuesday, January 24 from 6-9 p.m at Hi-Tech Motor Sports with an all day field session in Cooke City on Sunday, Jan 29. PRE-REGISTER BY JAN 23 at Hi-Tech!! Register with Sharon at 406-652-0090; [hitech@hi-techmotorsports.com](mailto:hitech@hi-techmotorsports.com).