

## **GNFAC Avalanche Advisory for Sun Jan 1, 2012**

This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on New Year's Day, Sunday, January 1 at 7:30 a.m. This advisory is sponsored by Cooke City Motorsports 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 continuing a Backcountry Avalanche Warning for the entire advisory area including the Bridger, Gallatin and Madison Ranges, the Lionhead area near West Yellowstone and the mountains around Cooke City. Heavy snowfall and high winds in the last 48 hours created large loads which fell onto an extremely weak snowpack and are causing widespread avalanches. Today the avalanche danger is **HIGH** on all slopes. Areas of unstable snow exist. Human triggered avalanches are very likely. Avalanche terrain, including avalanche runout zones, should be avoided.

### **AVALANCHE FATALITY**

I am saddened to report that a snowmobiler was killed in an avalanche yesterday outside Cooke City. The snowmobiler triggered and was buried on a northeast facing slope in Fisher Creek which broke one to four feet deep and 3-400 feet wide. He was dug up within 10-12 minutes, but did not survive. Eric and his partner witnessed the avalanche and assisted in the rescue. All of us at the Avalanche Center send our deepest sympathies to family and friends. Additionally, last night Eric informed me that a cross country skier was caught and buried south of Cooke City. More details are forthcoming on both these incidents.

### **Mountain Weather**

Yesterday was a beautiful sunny day, and so will today. Without any new snowfall, mountain temperatures hovered in the single digits as winds blew out of the west to southwest at 20-30 mph with gusts of 40-60 mph seen early yesterday morning. Today, westerly winds at 15-20 mph will continue as temperatures climb into the low twenties. No new snow is expected for the next several days.

### **Snowpack and Avalanche Discussion**

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

There are times when the avalanche danger is difficult to assess, and other times when it is easy. Today it's easy because we are surrounded by signs of instability. Extensive natural and human triggered slides were seen in all ranges yesterday. Recent wind-loading will only exacerbate the instability. Backcountry travelers will be able to trigger large avalanches from flat terrain as fractures propagate far and wide. We have very dangerous avalanche conditions, and slopes as well as runout zones should be avoided. In the last 24 hours:

1. A snowmobiler avalanche fatality occurred outside Cooke City.
2. Mark and I were able to remotely trigger avalanches up to 800 feet away near Hebgen Lake in the southern Madison Range.
3. Road cuts along Highway 191 avalanched; a low elevation warning of widespread instability.

4. Both the Yellowstone Club and Big Sky Ski Patrols triggered many large slides during avalanche control. Dozens of avalanches broke at the ground, some for their second time after reloading.
5. A snowmobile guide was in awe at extensive natural avalanche activity in the Teepee Creek area. Nearby another snowmobiler saw many slides on different aspects in Carrot Basin.
6. The bowl to the south of Saddle Peak in the Bridger Range slid naturally.

[Nine photos](#) from yesterday document these instabilities.

Most avalanches are breaking on a thick layer of loose facets (depth hoar) near the ground. These grains weakened over the past month and could not support the new snow. Although natural avalanche activity will likely subside today, it still remains very likely you can trigger an avalanche. There are slopes, most notably in the northern Gallatin Range, where you could find safer conditions. But we are including this area in our Avalanche Warning because of highly unstable snows on Mt. Ellis, up Little Bear Canyon and likely other spots too.

For today, the avalanche danger is rated [HIGH](#). Travel in avalanche terrain is not recommended. Wind-loaded slopes should be avoided at all costs. Winds may reload slopes that already avalanched and they may slide again; a dangerous attribute to thick layers of depth hoar.

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.

## STORM TOTALS

Precipitation totals ([SWE](#)) on Saturday morning were:

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)

## 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).