

## **GNFAC Avalanche Advisory for Fri Feb 1, 2013**

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Friday, February 1 at 7:30 a.m. The **Montana FWP Recreation Trails Grant** sponsors today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

*Yesterday* an additional 8 inches of dense snow fell in the Bridger Range; 4-6 inches fell near Hyalite, Big Sky and Cooke City; and 2-3 inches fell near West Yellowstone. *This morning* temperatures were in the high teens and low 20s F with winds blowing 10-15 mph from the west and gusting 20-30 mph. *Today* temperatures may drop a few degrees and winds will ease just a little shifting to the WNW. Snowfall will end around midday with 1-3 inches accumulating in most areas. By late afternoon a few rays of sunshine may break through the clouds making way for more sunshine this weekend.

### Snowpack and Avalanche Discussion

#### Bridger Range Northern Gallatin Range

During the last three days, 3.5 feet of snow fell in the Bridger Range (2-3 inches of snow water equivalent) and 2 feet fell in the northern Gallatin Range (2 inches of SWE), thus a lot of weight was added to the snowpack. Temperatures have gone up and down since Tuesday creating different layers of new snow with varying densities. Additionally, strong W and NW winds blew on Wednesday and Thursday transporting snow onto the lee sides of ridges and gullies. On most slopes the main concern will be avalanches breaking within layers of the new snow ([video](#)).

A scarier and longer lasting problem exists on slopes that had a thin snowpack ([2.5 deep or less](#)) prior to this week's snowfall. The snowpack on these slopes weakened and faceted during dry, cold weather in January and is now struggling to support the heavy load of new snow. These slopes exist at lower elevations like Mt Ellis where Eric found very unstable conditions yesterday and experienced widespread collapsing and [cracking](#). These slopes also exist at higher elevations like some SW aspects ([snowpack photo](#)) on the W side of the Bridger Range.

For today, with a lot of new, heavy snow and more falling this morning, I'm staying conservative and rating the danger **HIGH** on wind loaded slopes. Human triggered avalanches are just as likely on all other slopes which have a **CONSIDERABLE** avalanche danger.

#### Madison Range Southern Gallatin Range

#### Lionhead area near West Yellowstone

During the last three days, 1.5 feet of snow fell near Big Sky and 1 foot fell near West Yellowstone. These areas also received plenty of wind and ski patrols have triggered avalanches breaking within the new snow. Another problem is several layers ([video](#), [photo](#)) of weak facets (and some surface hoar - [photo](#)) buried 1.5-2 feet deep under the new snow. These layers have been most reactive in stability tests on S aspects where a skier experienced collapsing and cracking on [Cedar Mountain](#) yesterday. These layers also exist on N aspects and with so much new snow, I would be worried on these aspects as well today. New snow, wind, and buried weak layers mean dangerous avalanche conditions exist today and the avalanche danger is rated **CONSIDERABLE**.

## Cooke City

During the last three days, 1.5 feet of snow fell near Cooke City although we received reports of 2+ feet of new snow in some areas. With strong winds blowing during the last 2 days and temperatures rising and falling during the storms, there are several different layers in the new snow. Avalanches will easily break on one of these layers. At lower elevations in places like “Town Hill”, the snowpack was thin and weak prior to these storms. Avalanches could break deeper in the snowpack and be triggered remotely in these areas. For today with more snow falling, human triggered avalanches are likely and the avalanche danger is rated **CONSIDERABLE**.

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 Accident**

A skier was caught and fully buried in an avalanche in the Centennial Mountains along the Montana/Idaho border. His partners were all in safe locations watching him descend, all had rescue gear, and uncovered him in about 3 minutes – good job! He was injured as the avalanche carried him through trees fortunately he did not sustain serious injuries. Every accident is a learning opportunity and we’ll post more info as we get it.

## **February 16: 11<sup>th</sup> Annual King and Queen of the Ridge**

The 11<sup>th</sup> Annual King and Queen of the ridge Hike/Ski-a-thon fundraiser is Saturday, February 16. The event supports avalanche education. Enter as an individual or a team. Collect pledges for the number of hikes you can do in five hours. Kids and families are encouraged to hike too! Prizes will be awarded to the most hikes (1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup>); most money raised, most laps for a team, most money raised for a team. [More Information](#) / [Registration Form](#)

## **EDUCATION**

In **Bozeman**, on Wednesday, February 6, REI is hosting a *1-hour Avalanche Awareness lecture for Women*. Space is limited and registration is required: <http://www.rei.com/event/47916/session/64605>

The Friends are teaching a free *Companion Rescue Course* in **Big Sky**, at Grizzly Outfitters, on Friday, February 8 from 6-8 p.m., followed by a field session the next day from 10 a.m. to 2 p.m. Space is limited and pre-registration is required: <https://ticketriver.com/event/5830-companion-rescue-clinic-for-skiers-&-boarders>