

## **GNFAC Avalanche Forecast for Mon Jan 23, 2012**

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Monday, January 23 at 7:30 a.m. World Boards and Javaman in partnership with the Friends of the Avalanche Center sponsors today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Southwest Montana finally got a break in the weather yesterday as a weak ridge of high pressure built over the area. The ridge is beginning to break down this morning making for a change in the weather today and tonight. Currently, mountain temperatures are ranging from 10° to 20° F and winds are blowing predominately out of WSW at 15-30 mph. Today, mountain temperatures will warm into the mid to upper 20s F and winds will continue at 15-30 mph out of the WSW. Snow will develop over the mountains today as pacific moisture moves into the area. 2-4 inches is possible in the southern mountains an 1-2 inches will likely fall in the north by tomorrow morning.

### Snowpack and Avalanche Discussion

#### The Southern Madison Range, Lionhead area near West Yellowstone and mountains around Cooke City:

Yesterday's calm weather allowed the snowpack to take a deep breath and start adjusting to last week's storm snow. This has helped overall stability. However, the pack is still far from achieving equilibrium.

The most recent storm deposited 3-4 inches of SWE, which fell on a very weak foundation of faceted snow. This weak layer is widespread in the mountains around West Yellowstone and is found on many slopes in the mountains around Cooke City. On Saturday, Mark observed a large natural avalanche on Scotch Bonnet which failed on facets formed prior to this latest storm ([photo](#), [video](#)). Yesterday, riders in the Lionhead remotely triggered two avalanches on wind loaded slopes, a poignant reminder of the unstable conditions that exist in that area.

The avalanche hazard is trending down, but human triggered avalanches remain likely today and the avalanche danger is rated [CONSIDERABLE](#).

#### The Bridger Range:

The Bridgers have the least amount of snow out of any range in our forecast area. This has allowed the snowpack to remain shallow and weak, producing a fragile foundation for any significant load.

Over the past few days, 8 inches of dense snow totaling close to 1 inch of SWE gave the snowpack its first real test in weeks. This fast and heavy load produced natural avalanches near Sacagawea and continues to stress the weak faceted layer near the ground.

Yesterday, my partner and I toured into the Flatirons north of Ross Peak and found a snowpack that was not trustworthy. A thick slab resting over weak facets created cracking and collapsing and produced unstable results in stability tests ([photo](#)).

A weak structure and recent load make human triggered avalanches likely, specifically on wind loaded slopes which have a [CONSIDERABLE](#) avalanche danger. Non wind loaded slopes have a [MODERATE](#) avalanche

danger.

#### The northern Madison Range and Gallatin Ranges:

Yesterday, Doug and his partner traveled to Beehive Basin in the northern Madison Range and were encouraged by the overall stability of the area ([video](#)). This came as bit of a surprise, since I found unstable conditions in the same zone on Friday.

This means the avalanche danger spiked during the storm, but like a well trained athlete – recovered very quickly.

Skiers in the northern Gallatin Range also found good stability on Mt Wheeler.

Today's primary avalanche concern will be wind loaded slopes. Wind pillows beneath ridgelines, shallow rocky areas and slope convexities will be likely trigger points and should be avoided.

Today, heightened avalanche conditions exist on specific terrain features and the avalanche danger is rated [MODERATE](#).

Doug 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

##### Bozeman

[Introduction to Avalanches with Field Course](#). MSU, SUB Ballroom C, 7-9:30 p.m. Jan 25 and 26 with a field day Jan 28.

##### 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 Sue at 406-652-0090; [hitech@hi-techmotorsports.com](mailto:hitech@hi-techmotorsports.com).