

## **GNFAC Avalanche Advisory for Thu Jan 26, 2012**

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Thursday, January 26 at 7:30 a.m. Outlaw Partners and On Site Management sponsor today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

In the last 24 hours, 1-2 inches of snow fell near Big Sky and West Yellowstone and 3-4 inches fell near Cooke City. However, strong winds dominated yesterday's weather averaging 30-40 mph and gusting 50-70 mph from the W. This morning westerly winds eased and were blowing 15-20 mph, gusting 30-40 mph. Temperatures were in the high teens and low 20s F. Today temperatures will rise into the upper 20s F, and winds may calm a bit more. More snow will fall with 1-2 inches near Big Sky and Bozeman and 3-4 inches further south

### Snowpack and Avalanche Discussion

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

The snowpack in the southern mountains between West Yellowstone and the Taylor Fork drainage is not complicated. The bottom half is all weak facets and the upper half is new snow that has fallen in the last 10 days. This layering will be evident when you step off your sled or out of your skis and sink to the ground. On Tuesday near Lionhead, my riding partners and I dug snowpits and did stability tests but these weren't necessary to assess stability. We knew the snowpack was weak because our track would trench through the snowpack and bounce off buried rocks and trees. We knew the snowpack was unstable because we saw countless avalanches both new ([photo](#)) and old. A few slopes had not produced avalanches, and we treated these slopes like a loaded gun. On the same day nearby, Karl also found natural avalanche activity, a snowpack with a weak base, and unstable conditions ([video](#)).

The mountains near Cooke City received almost double the precipitation of other areas and many avalanches have occurred in this area. Yesterday at Lulu Pass, very strong winds made Doug feel like he was on Denali. On a south facing slope on Scotch Bonnet Mountain he found weak facets on an ice crust ([video](#)). This same layer produced a massive avalanche in the SE bowl on Scotch Bonnet and in several S-facing chutes closer to Lulu Pass. Two weeks ago, I found a similar layer on S aspects near Sheep Creek. N aspects do not have this layer, but some have weak depth hoar that will easily break while others have relatively strong snow.

Very strong winds have readily transported snow and formed hard wind slabs. Doug said that wind loading was occurring at seemingly random spots. A few natural avalanches are possible, but conditions are ripe for more human triggered avalanches and for today the avalanche danger is [CONSIDERABLE](#).

The Bridger, northern Madison, and northern Gallatin Ranges:

The snowpack near Big Sky and Bozeman also contains weak facets. In some places like Hyalite Canyon, these facets have not been problem this season, and near Big Sky in Bear Basin, they seem to be gaining some strength. In the Bridger Range these facets remain very weak ([photo](#)). It is worth digging to the ground and assessing these facets ([video](#), [photo](#)). However, the primary concern in these areas is wind loading. Triggering a fresh wind slab should be pretty easy today. Warm temperatures may have helped some wind slabs bond to the underlying snow, but don't trust them. For this reason, the avalanche danger is rated [CONSIDERABLE](#) on all

wind loaded slopes steeper than 35 degrees. Other slopes have a [MODERATE](#) avalanche danger.

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.

#### Events/Education

##### Bozeman

[Advanced Avalanche Workshop with Field Course](#). MSU, Wednesday and Thursday, February 1 and 2 from 7-9:00 p.m. with a field day Saturday, February 4. [Advanced registration](#) is required.

##### Helena

1-hour Avalanche Awareness lecture at Exploration Works on Tuesday, January 31 at 7:00 p.m. Call 457-1800 or check our [calendar](#) for more information.

##### Dillon

[Snowmobiler Introduction to Avalanches with Field Course](#). Lectures on Saturday, February 4 with a field day Sunday, February 5. [Advanced registration](#) is required.