

## GNFAC Avalanche Forecast for Sat Feb 23, 2013

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Saturday, February 23 at 7:30 a.m. **Mystery Ranch** in partnership with the Friends of the Avalanche Center sponsor today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

The first waves of moisture from a Pacific storm are starting to impact our area. As of 6 am 8 inches of snow has accumulated in the mountains near Big Sky. The mountains around West Yellowstone and Cooke City have picked up 2-4 inches while the mountains near Bozeman have picked up a trace to one inch. Snow will continue through the day with an additional 5-7 inches likely in the mountains near Big Sky and West Yellowstone. The mountains near Bozeman and Cooke City will pick up 4-6 inches.

Currently, temperatures are in the teens F and winds are blowing 10-25 mph out of the WSW with ridgetop gusts reaching into the 30s. Today, high temperatures will climb into the upper teens to mid-twenties and winds will continue to blow 15-25 out of the west. There will likely be a spike in wind speed as the front passes later this morning. Snow will gradually taper off tonight.

### Snowpack and Avalanche Discussion

#### Northern Madison Range

More than 8 inches of snow has fallen in the past five hours in the mountains around Big Sky. This hefty shot of snow will create an assortment of avalanche problems. The primary avalanche concern will be wind loaded slopes. Upper elevation terrain leeward to west-southwest winds will receive the heaviest loading. Today, natural avalanches are likely and human triggered avalanches are very likely on wind loaded slopes which have a **HIGH** avalanche danger.

On non-wind loaded slopes a layer of facets buried 1-3 feet deep will be feeling the stress from this rapid load. This layer is most widespread in mid to low elevations terrain where the snowpack is shallow. Places like Yellow Mountain are likely areas to find buried persistent weak layers. Today, continued snow will make human triggered avalanches likely on non-wind loaded slopes which have a **CONSIDERABLE** avalanche danger.

#### Bridger Range Southern Madison Range Gallatin Range

#### Lionhead area near West Yellowstone Cooke City

Over the past week, numerous human triggered avalanches have occurred throughout our advisory area. The main reason for the uptick in avalanche activity is a layer of facets buried 1-3 feet deep that has been put under stress by recent incremental snowfall ([video](#)). This problem will escalate as we receive more snow and wind today.

Alongside accumulating snow, strong winds will play a major role in a rising avalanche hazard. Today, wind loaded slopes will be the primary avalanche concern. West to southwest winds will make wind slabs most prevalent on north through east facing slopes though all aspects may harbor wind drifted snow. As more snow becomes available for transport, wind slabs will become more reactive as they grow in size and distribution.

Yesterday, a skier near Blackmore in the northern Gallatin Range triggered touchy wind slabs near ridgelines that propagated hundreds of feet across. Today, wind loaded slopes have the potential to break wider and deeper than one might expect.

Non-wind loaded slopes also pose an avalanche threat. As snow accumulates today and more weight is added to buried persistent weak layers, avalanches will become more likely. This problem is more difficult to predict, since not all slopes possess buried weak layers. However, buried facets have continuously shown up in snowpits throughout our advisory area. Over the past two days Doug found a layer of facets to be reactive in stability tests near Cooke City ([video](#)) and I got similar results near Hebgen Lake on Thursday. Places where the snowpack is thin, specifically around rock bands or scoured ridgelines will be likely areas to trigger deeper, more dangerous slides ([photo](#), [photo](#), [video](#)). A snowpit or two in the area you plan to ride is often a worthwhile investment that can help facilitate better decision making.

Today, human triggered avalanches are likely on wind loaded slopes which have a **CONSIDERABLE** avalanche danger. Non-wind loaded slopes have a **MODERATE** avalanche danger. If today's storm delivers, the avalanche danger could climb to **HIGH** on wind loaded slopes and **CONSIDERABLE** on non-wind loaded slopes.

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.

## **BRIDGER PEAK AVALANCHE**

Read the accident report from this avalanche [here](#) (click on the pdf file). Fortunately everyone lived to tell a great story from which we can all learn some important lessons.

## **OTHER AVALANCHE READING ([Articles Page](#))**

[Accident report](#) by Mark Staples, from an avalanche on Alex Lowe Peak, February 9.

[Sidecountry is Backcountry](#), printed in the February issue of *Carve*, by Doug Chabot.

[Know Your Slope Angles](#), printed in the February *Montana Snowmobile Association Newsletter*, by Eric Knoff.