

GNFAC Avalanche Advisory for Fri Feb 22, 2013

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Friday, February 22 at 7:30 a.m. **World Boards** and the **Bountiful Table** sponsor today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

It's snowing this morning. As of 6 a.m. the mountains near Bozeman and Big Sky received 1-3 inches of snow and all other areas received a trace. Temperatures were in the single digits and low teens F. Ridgetop winds at Bridger Bowl and Hyalite Canyon were blowing 20-35 mph from the W. Most other areas this morning had winds blowing 10-25 mph from the W. Snow will end this morning but return late afternoon or early evening.

Today will remain cold with temperatures struggling to climb out of the teens F and winds may increase a bit more this afternoon with the next round of snow. Snowfall today and tonight should bring 2-4 inches of new snow by tomorrow morning although tonight's snow should favor the mountains near Cooke City and West Yellowstone.

Snowpack and Avalanche Discussion

Bridger Range Madison Range Gallatin Range

Lionhead area near West Yellowstone

Many slopes have a persistent layer of faceted snow crystals buried in the upper 3 feet of the snowpack. In most cases this layer is very obvious visually, while digging, and in stability tests. Recent avalanches provide clear evidence of this layer's ability to fracture. Avalanches have occurred on Bridger Peak ([accident report](#)), [Lionhead](#), [Skyline Ridge](#), Fan Mountain, and Cedar Mountain. Additionally the Big Sky Ski Patrol has triggered avalanches in undisturbed areas with basically a backcountry snowpack.

Why are there tracks on many other slopes but no avalanches? This weak layer will definitely propagate a fracture ([video](#)). The missing step has been fracture initiation which is more difficult without stress from much new snow or wind-blown snow. Both snow and wind are coming. Conditions are not all doom and gloom. Some slopes lack this weak layer of facets, but it requires several snowpits to confirm this layer doesn't exist.

With a persistent weak layer buried on many slopes, human triggered avalanches remain possible. Unfortunately this layer will not show many signs of instability, and skiers and riders can hit many slopes before one slides. Today, the avalanche danger is rated **MODERATE**.

Cooke City

In many places near Cooke City, the snowpack is very deep. Where it isn't deep will be a good place to trigger an avalanche like [one above Sheep Creek](#). Look for exposed rocks or any place you think your sled could tag a buried rock or stump.

There is another problem that is more widespread and responsible for several other recent [avalanches](#). A very thin layer of small faceted crystals formed about a week and a half ago. Doug found this layer on most aspects yesterday buried 1.5 feet deep ([photo](#), [video](#)). This layer is difficult to see, but it exists next to an ice crust on

southerly aspects. Until more snow and wind-blown snow add stress to the snowpack, avalanches will not occur on every slope; however, the possibility is lurking on most. Make sure your partners watch from a safe location (not the toe of a slope) and consider the consequences of a slide like being pushed into trees or over rocks. For today the avalanche danger is rated **MODERATE**.

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 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.