

## **GNFAC Avalanche Forecast for Sat Feb 22, 2014**

Good Morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Saturday, February 22 at 7:30 a.m. **Montana Ale Works**, in partnership with the **Friends of the Avalanche Center**, sponsors today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Over the past 24 hours the Bridger Range has picked up 17 inches of new snow. The northern Gallatin Range has received close to a foot while the mountains around Big Sky picked up 4-5 inches. The mountains around West Yellowstone and Cooke City have received 1-3 inches.

At 4 a.m. mountain temperatures are in the single digits above or below zero F and winds are blowing 10-20 mph out of the WNW. Snow will slowly diminish through the morning hours with an additional 1-2 inches possible in the northern ranges. Today, temperatures will warm into the teens F under mostly cloudy skies and winds will remain light to moderate out the WNW. This afternoon and evening look to be dry, but another potent storm system is forecasted to impact southwest Montana starting tomorrow morning. This storm has the potential to drop over a foot of snow in the northern mountains by Monday.

### Snowpack and Avalanche Discussion

#### Bridger Range Northern Gallatin Range

The Bridger Range is once again being favored by a northwest flow, picking up more than two feet of snow over the past three days. The northern Gallatin Range has also been favored receiving more than a foot at upper elevations. The snow that accumulated overnight fell with very little wind. This will keep slab development to a minimum. Avalanches within the new snow, primarily fast moving sluffs, will increase in speed and volume as they move downhill. This problem will be most likely in steep terrain near the ridge tops.

A secondary problem will be triggering denser wind slabs that formed over the past few days. Winds blew strong yesterday out of the west-northwest likely forming wind drifts on leeward slopes ([photo](#)). This problem will be a little tricky to identify since recently formed wind slabs will now be covered by twelve inches of fluff. It's best to assume that any upper elevation slope facing the eastern half of the compass has received wind deposited snow.

On slopes that have not received a wind load, a layer of facets buried 2 feet deep have the potential to produce avalanches. This layer has not been active lately, but with the most recent load, it is possible this layer could awaken. Although this layer isn't widespread, it's important to dig frequently and perform stability tests to make sure you don't stumble blindly into an isolated area where it is a problem.

Today, the avalanche danger is rated **HIGH** on slopes steeper than 35 degrees. Less steep slopes have a **CONSIDERABLE** avalanche danger.

#### Cooke City

The impressive run of new snow continues in the mountains around Cooke City - it has snowed 23 out of the past 26 days. In addition to this relentless snowfall, strong winds have impacted the area. A local has described the past few weeks as the most constant wind event they have seen in years. Fortunately, winds have died down

over the past twelve hours, which will allow the snowpack a quick breather.

However, the combination of new snow and strong winds has made for dangerous avalanche conditions ([photo](#)). The most likely areas to encounter unstable snow will be on wind loaded slopes. The wind has a tendency to blow from all directions in the mountains around Cooke City, creating unpredictable loading patterns. As a result, all aspects and elevations have been wind affected. The long and the short of it is, if a slope resembles a beached whale, it is best to avoid that slope.

Non-wind loaded slopes will be less likely to produce avalanches, but a layer of facets buried 2-4 feet deep can be found throughout the area ([photo](#)). This layer seems to be most problematic on mid-elevation, southerly facing slopes where an ice crust is present. It's a scavenger hunt looking for this layer, but if it turns up it's best to avoid steeper slopes.

For today, natural avalanches are possible and human triggered avalanches are likely. For this reason the avalanche danger is rated [CONSIDERABLE](#).

Southern Madison Range   Southern Gallatin Range

Lionhead area near West Yellowstone

The mountains near West Yellowstone, including the southern Madison Range, have the weakest snowpack in our advisory area. Many natural and human triggered avalanches have occurred in these ranges over the past few weeks. Three days ago two snowmobilers were partially buried in a slide in the Lionhead area. We don't have specific details, but this is bull's eye data that the snowpack remains unstable.

A layer of facets buried 2-3 feet deep is the instability culprit in this area. This layer is widespread and has produced avalanches on all aspects and elevations.

Today, widespread weak layers make human triggered avalanches likely and the avalanche danger is rated [CONSIDERABLE](#).

The Northern Madison Range

Stability in the mountains around Big Sky has been improving. Yesterday, skiers in Beehive Basin found mostly stable conditions and felt comfortable skiing slopes up to thirty five degrees. This is an improvement from six days ago when three skiers were caught in a slide on a west facing slope in Beehive Basin (see photos and accident report below).

Today, the primary avalanche concern will be wind loaded slopes. Upper elevation terrain facing the eastern half of the compass will be the most likely areas to encounter wind deposited snow. Wind slabs will be reactive to human triggers.

A secondary concern is a layer of facets buried two feet deep. This layer has been gaining strength, but can't be fully trusted. It's worth digging down to assess the strength and distribution of this layer before riding on steep slopes.

Today, the avalanche danger is rated [CONSIDERABLE](#) wind loaded slopes and slopes steeper than 35 degrees. Less steep slopes without a wind load have a [MODERATE](#) avalanche danger.

**Beehive Basin Accident Report**

The Beehive Basin Accident report is posted online and can be read here:

<http://www.mtavalanche.com/accident/14/02/18>

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**

TODAY, February 22, WEST YELLOWSTONE: Saturday, 7:00-8:00 p.m., Holiday Inn, **1 –hour, FREE Avalanche Awareness for Snowmobilers** lecture.

More information our complete calendar of events can be found [HERE](#).