

GNFAC Avalanche Forecast for Mon Jan 28, 2013

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Monday, January 28 at 7:30 a.m. **Madison River Brewing Company** and **Bountiful Table** sponsor today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Since yesterday morning 6-8 inches of snow fell in the mountains around [West Yellowstone](#) and Big Sky including the [northern Gallatin Range](#). The mountains around [Cooke City](#) picked up 4-5 inches while the Bridger Range squeezed out 3 inches. Today, snow showers will linger but accumulations will be less than an inch. Currently, temperatures are ranging from the single digits to low teens F and winds are light out WNW blowing 5-15 mph. Today, temperatures will warm into the upper teens to low twenties F and winds will stay light to moderate out of the WNW. A stronger storm system will move into southwest Montana late tonight and last through tomorrow. Accumulations upward of a foot are possible by Wednesday morning.

Snowpack and Avalanche Discussion

Cooke City Southern Madison Range Southern Gallatin Range

Lionhead area near West Yellowstone

How much did it snow, where have the winds been blowing and what kind of surfaces did the new snow fall onto? These are the main questions we need to ask.

Upper elevation terrain around Cooke City has received close to a foot of snow over the past three days and has seen the strongest winds. However, this area lacks buried persistent weak layers which helps narrow the avalanche hazard down to wind loaded slopes. On Saturday, winds blew predominately out of the SW, but switched to the NW yesterday afternoon. A flip flop in wind direction will create fresh wind slabs on a variety of slopes, specifically those below ridgelines and around cross loaded terrain features. I don't expect wind slabs to propagate far, but they will likely break 1-2 feet deep producing enough debris to carry or burry a skier or rider.

The mountains around West Yellowstone including the northern Madison Range received close to ten inches of snow over the past three days. This latest round of snow has been deposited onto a layer of near surface facets and/or surface hoar (**[facets](#)**, **[surface hoar](#)**). These persistent weak layers have been preserved on a wide range of slopes throughout the southern areas. Winds out of WNW have been just strong enough to transport snow onto leeward slopes. Areas that have received any wind loading will be sensitive to the weight of skier or rider. Digging multiple snowpits to assess the strength and distribution of these buried weak layers is essential before committing to avalanche terrain.

Today, for the mountains around Cooke City, West Yellowstone and the southern Madison Range – Human triggered avalanches are likely on wind loaded slopes which have a **[CONSIDERABLE](#)** avalanche danger. Non-wind loaded slopes have a **[MODERATE](#)** avalanche danger.

Northern Madison Range Northern Gallatin Range

Over the past 24 hours 5-8 inches of low density snow fell in the northern Madison and northern Gallatin Ranges. This storm came in warm and left cold, allowing the new snow to bond well to old snow surfaces. The lack of wind also helped prevent the avalanche hazard from rapidly increasing. Yesterday, the Big Sky Ski Patrol triggered a few small soft slab avalanches in steep-upper elevation terrain, but found the new snow to be mostly non-reactive.

Today, loose snow or soft slab avalanches are possible on wind loaded slopes and slopes steeper than 35 degrees which have a **MODERATE** avalanche danger. All other slopes have a **LOW** avalanche danger.

The Bridger Range

The Bridger Range is not typically favored by a west-southwest flow, which proved to be the case with this latest storm. The new snow has bonded well to the old snow surface and the lack of wind has kept slab development to a minimum.

Today, unstable snow may be found on isolated terrain features, but generally safe avalanche conditions exist. For this reason the avalanche danger is rated **LOW**.

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 or call us at 587-6984.

EDUCATION

In **Helena**, next Thursday (1/31) at 6:30 p.m., the Friends are giving a free *1-hour Avalanche Awareness* lecture at Exploration Works (995 Carousel Way).

Wednesday (1/30) and Thursday (1/31) evenings and all day Saturday (2/02), we are teaching an *Advanced Avalanche Workshop with Field Course* at **MSU**. Registration is required. For more info and to register, visit: <https://www.ticketriver.com/event/4974-advanced-avalanche-workshop-with-field-course>

In **Bozeman**, on Wednesday, February 6, REI is hosting a *1-hour Avalanche Awareness lecture for Women*. Space is limited and registration is required: <http://www.rei.com/event/47916/session/64605>

The Friends are teaching a free *Companion Rescue Course* In **Big Sky**, at Grizzly Outfitters, on Friday, February 8th from 6-8 p.m., followed by a field session the next day from 10 a.m. to 2 p.m. Space is limited and pre-registration is required: <https://ticketriver.com/event/5830-companion-rescue-clinic-for-skiers-&-boarders>