

GNFAC Avalanche Advisory for Fri Feb 19, 2016

Good morning. This is Alex Marienthal with the Gallatin National Forest Avalanche Advisory issued on Friday, February 19, at 7:15 AM. Today's advisory is sponsored by [Gallatin County Search and Rescue](#) and [Bozeman Ski Guide](#). This advisory does not apply to operating ski areas.

Mountain Weather

The mountains around Bozeman and Big Sky received 2-3" of high density snow yesterday, and the mountains near West Yellowstone received 7" of snow. SNOTEL data has not updated since yesterday morning, but I assume Cooke City got 3-7" as well. Temperatures this morning are in the high teens to low 20s F and wind is out of the southwest at 30-40 mph with gusts in the 60s. Today will be mostly cloudy with temperatures in the 20s to low 30s F. Wind will be out of the west-southwest around 30 mph and increase to 40 mph this evening. The southern mountains will get light snowfall today, and a couple inches are expected throughout the advisory area tomorrow.

Snowpack and Avalanche Discussion

[Southern Madison Range](#) [Southern Gallatin Range](#) [Cooke City](#)

Lionhead area near West Yellowstone

Snowfall last night totaled around 1" of snow water equivalence ([SWE](#)) near West Yellowstone. Without SNOTEL data, our conservative estimate is this amount fell throughout the southern mountains, but it could be less or more in some areas.

Surface hoar buried 1.5 to 2 feet deep has been observed throughout the southern mountains, and yesterday's snow and wind put a lot of stress on this layer. On Sunday, an observer found this layer in the southern Madison Range ([photo](#)) and Doug found it near West Yellowstone ([video](#)). Yesterday, two snowmobilers triggered, were caught, and unharmed in a small slide near Cooke City. Since Monday, at least five avalanches were triggered on buried surface hoar near Cooke City ([photo](#), [photo](#)). Doug and I also found a layer of facets buried 6-8" deep in the Taylor Fork on Wednesday ([video](#)). These layers are not on every slope, which can make them hard to detect. It is worthwhile to dig a snowpit to look for these layers if there is a lack of obvious instability like avalanches or collapsing.

It is still possible, though less likely, to trigger an avalanche on depth hoar near the ground or facets buried 2-3 feet deep, as shown by a snowmobiler that triggered a slide on depth hoar last Sunday in the Taylor Fork ([video](#), [photo](#)).

Recently buried weak layers, new snow, and wind make it likely to trigger an avalanche today, and natural avalanches are likely on wind loaded slopes. Today, the avalanche danger is [HIGH](#) on wind loaded slopes and [CONSIDERABLE](#) on all other slopes.

[Bridger Range](#) [Northern Madison Range](#) [Northern Gallatin Range](#)

The northern mountains received less new snow than the southern mountains and lack recently buried weak layers. Yesterday, Eric and I toured near Fairy Lake in the northern Bridger Range and found a mostly strong snowpack with our main concern being new snow and wind ([video](#)). Wind slabs that formed this week bonded

well to the old snow surface, and we felt comfortable skiing steep terrain. Wind slabs that formed from yesterday's snow and wind will be possible to trigger today and will be most likely near ridgelines.

It remains possible, though unlikely, to trigger an avalanche on depth hoar near the ground. This layer creates a poor structure on most slopes and is capable of producing an avalanche as Eric found in Beehive last week ([video](#)).

New snow and wind will make it possible to trigger an avalanche today, and the danger is rated **MODERATE**.

I will issue the next advisory tomorrow morning by 7:30 a.m. If you have any snowpack or avalanche observations to share, drop us a line at mtavalanche@gmail.com or leave a message at 587-6984.

EVENTS and AVALANCHE EDUCATION

A complete calendar of classes can be found [HERE](#).

West Yellowstone: Saturday, February 20, 7-8 p.m., *1-hr Avalanche Awareness for Snowmobilers* at the Holiday Inn.

Bozeman: Wednesday, February 24, 6-7 p.m. *1-hr Avalanche Awareness*, Roskie Hall, MSU.