

## **GNFAC Avalanche Forecast for Sat Dec 10, 2016**

Good Morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Saturday, December 10<sup>th</sup> at 7:00 a.m. Today's advisory is sponsored by [Community Food Co-op](#) in partnership with the **Friends of the Avalanche Center**. This advisory does not apply to operating ski areas.

### Mountain Weather

This is my type of weather pattern – warm and snowy. Over the past 24 hours the mountains across the advisory area picked up 3-5” of new snow. Currently, light snow is falling in the mountains south of Bozeman. Temperatures are in the 20s F and winds are blowing 15-30 mph out of the W-SW. Today, a strong westerly flow will continue to usher moisture into the area. The southern ranges will likely pick up 2-4” by tomorrow morning while the mountains around Bozeman will pick up 1-2”. This pattern will also keep temperatures on the mild side. Today, highs will climb into the upper 20s F, a welcomed change from the sub-zero temps that gripped the area over the past week. Winds will continue to blow 15-30 mph out of the W-SW.

### Snowpack and Avalanche Discussion

#### Bridger Range

The Bridger Range is favored by certain weather patterns. A west-southwest flow is not one of them. Although the Bridger Range squeezed out 4-5” of snow overnight, I don't expect snowfall to continue through the day. This fresh coat will improve conditions for opening weekend at Bridger Bowl, but I don't expect it to drastically increase the avalanche danger.

Loose snow avalanches will be possible in steep terrain and the occasional wind slab may be triggered below the ridgelines. A less likely but more dangerous situation will be avalanches failing on facets near the ground ([video](#)). Over the past week, the Bridger Bowl Ski Patrol has triggered multiple slides during control work that have failed on this layer.

With a few different avalanche problems to contend with, human triggered avalanches are possible and the avalanched danger is rated **MODERATE**.

#### Madison Range   Gallatin Range

#### Lionhead area near West Yellowstone

The mountains south of Bozeman *have* been favored by the current weather pattern. [Carrot Basin](#) Snotel site in the southern Madison Range is recording 1” of SWE in the past 48 hours. The mountains around Big Sky and West Yellowstone are recording well over a .5” of SWE in the past 48 hours. This presents a few different avalanche problems.

The main concern today will be wind loaded slopes. New snow and strong winds out of the west-southwest will form a fresh batch of wind slabs. These will likely be resting over weak, faceted snow that formed during the recent cold snap. Yesterday, climbers in Hyalite found touchy conditions in a wind loaded gully and backed off their objective. Today, I expect wind slabs to be meatier and more sensitive than yesterday. Watch for signs of instability such as cracking/collapsing and avoid steep slopes that appear to be wind loaded.

Wind drifted snow will also be adding stress to weak facets near the ground. This layer continues to produce avalanches during control work at Big Sky and Yellowstone Club ski resorts ([photo](#), [photo](#)). With more snow and wind today, avalanches failing at the ground remain a real concern. Do your homework and assess this layer before jumping onto any steep slope ([video](#)).

Today, new snow, wind and buried weak layers make human triggered avalanches likely on wind loaded slopes which have a [CONSIDERABLE](#) avalanche danger. Non-wind loaded slopes have a [MODERATE](#) avalanche danger.

### Cooke City

Cooke City is a place that's favored by most weather patterns. Southwest flow, northwest flow – it doesn't really matter. Over the past two days [Fisher Creek](#) Snotel site is recording nearly 1" of SWE with higher amounts likely at upper elevations. Today, new snow instabilities will be the main concern.

With temps warming into the upper 20s, the new snow will be higher density, which may create an upside down snowpack. This alone can create unstable conditions, but with new and wind-blown snow resting over a weak old snow surface, I expect wind slabs and storm slabs to fail easily with human triggers. Avalanches also have the potential to fail on weak layers buried deeper in the pack. Fortunately, these deeper layers are not widespread, but they can't be ruled out. They seem to most prevalent on north facing slopes ([video](#)).

With snow and wind continuing through the day, human triggered avalanches are likely on wind loaded slopes and slopes steeper than 35 degrees which have a [CONSIDERABLE](#) avalanche danger. Less steep, non-wind loaded slopes have a [MODERATE](#) avalanche danger.

Alex will issue the next advisory tomorrow morning at 7:30 a.m.

We rely on your field observations. Send us an email with simple weather and snowpack information along the lines of what you might share with your friends: How much new snow? Was the skiing/riding any good? Did you see any avalanches or signs of instability? Was snow blowing at the ridgelines? If you have snowpit or test data we'll take that too, but this core info is super helpful! Email us at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com) or leave a message at 406-587-6984.

### Upcoming Events and Education

#### BOZEMAN

15 December, **Avalanche Awareness and Beacon Practice**, 6-8 p.m. at Beall Park.

#### WEST YELLOWSTONE

15 and 16 December, **Snowmobile Introduction to Avalanches w/ Field Day**, West Yellowstone Holiday Inn Conference Hotel. More info and sign up [HERE](#).

#### COOKE CITY

Every Friday and Saturday, **Weekly rescue training and snowpack update**, Super 8 on Friday 6-7:30 p.m. and field location TBA for Saturday.

#### BILLINGS

15 December, **Snowmobiling In and Identifying Avalanche Terrain**, 6-8 p.m., Big Horn Resort.