GNFAC Avalanche Forecast for Fri Dec 10, 2021

Good Morning. This is Ian Hoyer with the Gallatin National Forest Avalanche Forecast on Friday, December 10th at 7:00 a.m. This information is sponsored by <u>Blitz Motorsports and Yamaha</u> and <u>Yellowstone Club</u> <u>Community Foundation</u>. This is our first daily avalanche forecast and <u>danger ratings</u> issued for the season. I will issue the next forecast by 7:30 tomorrow morning.

Mountain Weather

Over the last two days, 11" of snow fell near Cooke City, 5-8" near West Yellowstone, and 1-2" near Bozeman and Big Sky. Winds are 5-10 mph out of the west with gusts of 15-25 mph. Temperatures this morning are in the single digits F and will only rise a few degrees today. Winds will be 15-25 mph out of the west. The sun will poke out today, but there is also a chance for light snow showers. More significant snowfall is forecast for tomorrow into Sunday.

Snowpack and Avalanche Discussion



Near Cooke City almost a foot of new snow (0.9" <u>Snow Water Equivalent</u>) fell since Wednesday afternoon, accompanied by strong winds. This snow comes on top of the 8" that fell earlier in the week. Avalanches breaking in this week's new snow are the primary concern today, particularly where the new snow has been blown into deeper drifts.

On some slopes the new snow fell onto bare ground, while on others it is adding to a 2-3 ft deep layered snowpack that has been accumulating since October. Slopes that held snow before this week have weak layers in the lower snowpack (video, video). These weak layers aren't super concerning, but they have just gotten loaded for the first time. It's worth digging to look for and evaluate these layers before committing to steep slopes. Human triggered avalanches are possible and the avalanche danger is MODERATE.



Bridger Range Gallatin Range Madison Range Lionhead Range Island Park

Less new snow fell near Bozeman, Big Sky, and West Yellowstone. On slopes where this new snow has *not* been drifted into deeper drifts, avalanches are unlikely. On Wednesday, Doug and Dave found weak layers developing mid-pack in the Bridgers, but without a load we are not very concerned about them right now (<u>video</u>).

The slopes to be mindful of are those where the new snow has piled up into thicker cohesive drifts. Yesterday, Doug was in Hyalite checking out the snowpack in Avalanche Gulch and near Silken Falls (video). Overall he was encouraged by the lack of instability he found in the wind drifted gullies, but he still encouraged a healthy skepticism of drifts. What he's worried about is that you might still be able to trigger a wind slab like the one ice climbers triggered last weekend in a gully in Hyalite (photos and report). Be ready to back off a slope if you feel the snowpack stiffening under your feet or see cracks shooting out in front of you.

While we are generally optimistic about stability based on what we've found so far, it is still early season and we still have very limited data. Uncertainty remains high. Deal with this uncertainty by treating your early season trips into the mountains as information gathering missions. Be cautious, be on the search for instability and if you find it, back off and then let us know.

The avalanche danger is **MODERATE** on wind-loaded slopes and **LOW** on all other slopes.

If you get out, please send us your observations no matter how brief. You can submit them via our <u>website</u>, email (<u>mtavalanche@gmail.com</u>), phone (406-587-6984), or Instagram (#gnfacobs).

Upcoming Education Opportunities:

Get your avalanche brain ready for the season at one of the many classes listed on our <u>education calendar</u>, and list of upcoming events below. Don't delay preparing and inspecting your avalanche gear. Get some tips from <u>Dave Zinn in this Pre-Season gear check video</u>.

Wednesday, December 15, 6-7 p.m. <u>FREE Sidecountry Avalanche Awareness for Families (and Friends)</u>. In partnership with Bozeman Parks and Recreation *at Beall Park*. A 1-hr avalanche awareness talk with an emphasis on "Sidecountry Terrain and Snowpack."

Friends of GNFAC Powder Blast Fundraiser

The Friends of the Avalanche Center are hosting the <u>Virtual Powder Blast</u> fundraiser. With only \$3,500 left to go, help us reach the \$65,000 goal. Your donations support *free and low-cost avalanche education, beacon checkers at trailheads, beacon parks, weather stations,* and *GNFAC programs!*