## **GNFAC** Avalanche Forecast for Sun Dec 20, 2020

Good Morning. This is Alex Marienthal with the Gallatin National Forest Avalanche Forecast on Sunday, December 20th at 7:15 a.m. This forecast is sponsored by <u>Summit Motorsports and Ski-Doo</u> and <u>Beartooth Powder Guides</u>. This forecast does not apply to operating ski areas.

## Mountain Weather

Since yesterday morning the mountains near Cooke City and West Yellowstone got 2-4" of snow while less than 1" fell elsewhere. This morning, temperatures are teens to 20s F in the southern ranges and 20s to low 30s F near Bozeman and Big Sky. Winds are west-southwest at 20-35 mph with gusts of 40-60 mph.

Strong westerly wind will continue today with gusts to 40-60 mph, and temperatures will reach high 20s to low 30s F. Snowfall will favor the southern mountains with 7-10" near Cooke City by tomorrow morning, 5-7" near West Yellowstone, 1-3" near Big Sky and less than 1" in the mountains near Bozeman.

Snowpack and Avalanche Discussion



## Madison Range Southern Gallatin Lionhead Range Island Park

From Big Sky to West Yellowstone 1-2 feet of weak, sugary snow on the ground will struggle to hold the weight of fresh drifts that formed from strong westerly wind. Last week Ian was in Taylor Fork and found unstable, soft drifts (<u>video</u>), and Doug triggered a 1 foot deep soft slab on a small slope near West Yellowstone (<u>photo</u>). On Friday, we got reports of multiple slides triggered by snowmobiles, groomers, snowplows, and by explosives at the ski resorts (<u>photo</u>, <u>photo</u>, <u>photo</u>).

Due to the very poor snow structure, slabs that grew over the last week have not stabilized and remain easy to trigger. Avalanche danger is <u>CONSIDERABLE</u> on wind-loaded slopes and <u>MODERATE</u> on non-wind loaded slopes. Near West Yellowstone, heavy snowfall and wind today will increase the avalanche danger to <u>CONSIDERABLE</u>. Avoid travel on or underneath steep, wind-loaded slopes.



Near Cooke City, avalanche danger is elevated due to new snow and strong wind that will create fresh slabs. Today, these slabs are possible to trigger and large enough to bury or badly injure a person. Expect stability to decrease through the day as more snow and wind grow larger slabs. Be extra cautious of wind-loaded slopes where thick drifts form. The snowpack near Cooke city is 3-5 feet deep and generally lacks widespread buried weak layers (video). However, we have seen and heard evidence of weak snow buried 1-2 feet deep on some slopes. This includes a few avalanches west of Cooke City last week which broke 100 feet wide on a layer of sugary snow (photo). Today the avalanche danger is MODERATE.

In the mountains near Bozeman, strong westerly winds over the last 24 hours formed thick drifts that are unstable on steep slopes. These drifts can't be trusted to hold the weight of a person because the snowpack below has widespread sugary weak layers (**photo**, **video**). Avoid steep wind-loaded slopes today. These can range from hard slabs near ridgelines to soft slabs in the trees. On non-wind loaded slopes, a lack of new snow to form a slab over the weak foundation makes avalanches unlikely. If you are unsure which slopes are wind-loaded, be cautious of any slope steeper than 30 degrees. Today the avalanche danger is **MODERATE** on wind-loaded slopes and **LOW** on 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 Avalanche Education and Events**

See our <u>education calendar</u> for an up to date list of all local classes. Here are a few select upcoming events and opportunities to check out:

Every Saturday in Cooke City, FREE snowpack update and rescue practice at the Round Lake Warming Hut between 10 a.m. and 3 p.m. Starts this Saturday, November 28. Poster with More Info.

Monday, December 21, 6-7 p.m., **FREE online 1-hr Avalanche Awareness** sponsored by Mystery Ranch. **Join HERE**.

January 20 & 21 (plus field sessions the following weekends), **Avalanche Fundamentals with Field Course**. There are separate field sessions tailored for both skiers and splitboarders (Bridger Bowl) and snowmobilers (Buck Ridge). Register **here**.