Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Tuesday, January 8 at 7:30 a.m. Today's advisory is sponsored by Madison River Brewing Company and the Moonlight Basin Ski Patrol. This advisory does not apply to operating ski areas.

## Mountain Weather

In the last 24 hours 1-2 inches have fallen around Bozeman, 3-4 inches around Big Sky, 4-5 inches near West Yellowstone and 8 inches outside Cooke City. Mountain temperatures are in the teens with west to southwest winds averaging 20-30 mph and gusting to 50 mph. Today will be cloudy with temperatures rising to near 20F as winds continue to blow strong out of the west to southwest. By morning a trace to one inch of new snow is expected, but don't fret, much more is slated for Thursday.

## Snowpack and Avalanche Discussion

Yesterday's snowfall buried a surface weakness of facets and feathery surface hoar crystals that formed during last week's sunny weather. Facets do not play nice: they are sugary and do not bond together and they can persist for months. This layer is found in all our mountain ranges and is now our #1 avalanche problem. More snow this week will increase the danger quickly, especially on wind-loaded slopes. Eric's video from last week shows us the problem very clearly. And the surface hoar in this photo, taken in Beehive Basin, is now buried too.

### Madison Range Southern Gallatin Range

## Lionhead area near West Yellowstone Cooke City

In the mountains from Big Sky to West Yellowstone and Cooke City, four to eight inches of snow and strong winds just buried a new, and I'm guessing resilient, weak layer. Although the grains are small, the layer is up to four inches thick and unmistakable: they will fall out of the pit wall and on steep slopes you can push sluffs of them down the hill. This layer is widespread. Yesterday, Eric and I rode up Buck Ridge south of Big Sky and watched it all get buried by wind-blown snow. This weak layer will not support much of a load. We were watching the avalanche danger rise right in front of our eyes as soft wind slabs formed.

Winds are strong again today and if you get on a wind-loaded slope it's likely you'll trigger an avalanche. Although they won't be very deep, they will propagate far. For today, the avalanche danger on any wind-loaded slope is <u>CONSIDERABLE</u>. Slopes without a wind-load will have a <u>MODERATE</u> avalanche danger since it's possible to trigger slides on these slopes too.

### Bridger Range Northern Gallatin Range

In the last 48 hours only 2-3 inches has fallen in the Bridger and northern Gallatin Ranges. This small amount of snow is plenty to bury the small, sugary facets that formed on the surface. In the Bridger Range on Thursday a skier triggered a wind drift that was sitting on these facets and took a 1,000 foot ride (<u>his video</u>, <u>our video</u>, <u>photo</u>). He was unscathed. This avalanche is a preview of what to expect as we get more snow in the coming days. Slopes with a wind-load have a <u>MODERATE</u> avalanche danger since it's possible to trigger avalanches on them today. All other slopes have a <u>LOW</u> danger. More than a few inches of snow will quickly bump this danger up further.

I 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 <u>mtavalanche@gmail.com</u> or call us at 587-6984. If you are unsure what types of information we are looking for, this article explains it well: http://www.mtavalanche.com/sites/default/files/BigSkyWeekly\_Observations.pdf

# **EDUCATION**

Wednesday, January 9, 6:30 p.m., 1-hour Avalanche Awareness at REI, Bozeman.

Saturday and Sunday, January 12 and 13, Snowmobiler Introduction to Avalanches with Field Course in Bozeman. For more information and to sign up: <u>https://www.ticketriver.com/event/4979-snowmobiler-introduction-to-avalanches-w-field</u>

Thursday and Saturday, January 10 and 12, Rescue Clinic. Thursday at 6:00 p.m. at REI, Bozeman and Saturday at 10 a.m. in the field, location TBD. For more info and to register go <a href="http://www.rei.com/event/47692/session/64126">http://www.rei.com/event/47692/session/64126</a>

Wednesday, January 16, 7:00 p.m. "The Sidecountry is Backcountry" at MSU's Procrastinator Theater in Bozeman, a free 1-hour presentation.

Saturday, January 19, Rescue Clinic for Snowmobilers in Cooke City starting at Cooke City Motorsports. This 6 hour clinic teaches how to use avalanche rescue gear and perform an avalanche rescue. Registration is required. For more info and to sign up, visit: <u>https://www.ticketriver.com/event/4980-companion-rescue-clinic-for-snowmobilers</u>

Saturday, January 19, 6 -7 p.m., 1-hour Avalanche Awareness at the Cooke City Community Center.