

[GNFAC Avalanche Advisory for Wed Jan 21, 2015](#)

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, January 21, at 7:30 a.m. [Spark R&D](#) and [JA Gear](#) sponsor today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Last night a rogue squall dropped an inch of snow up Hyalite and dusted Bozeman just enough to be annoying. Mountain temperatures have fallen into the single digits except in the Bridger Range where they are in the teens. Westerly winds have calmed to 5-15 mph. Today will be sunny, winds will remain calm and mountain temperatures will climb into the 20s.

Snowpack and Avalanche Discussion

Cooke City

Mark drove to Cooke City yesterday looking for instability after this weekend's two foot snowfall. It took a bit of hunting, but he found it under the new snow below treeline on slopes with a sun crust (south to east aspect) that were capped by small facets ([video](#)). Skiers on Barronette Peak and Mt. Republic found pockets of surface hoar ([photo](#)) under the new snow which would collapse or "whumph". From a ridge they triggered a small slide on this layer from 30 feet away (14-16 inches deep; 25 feet wide; [photo](#)). These instabilities are not widespread so search for them. The skier who triggered the slide wrote that most slopes are, "guilty until proven innocent". Dig to find the weak layer and then do a stability test before committing to avalanche terrain. For today, the avalanche danger is rated [MODERATE](#).

Southern Gallatin Range Southern Madison Range

Lionhead area near West Yellowstone

The storm this weekend buried a layer of surface hoar in the southern mountains ([photo](#)) that is our main concern. It is not everywhere but in enough spots to warrant some investigation. On Sunday I found it underneath five inches of snow at Bacon Rind but it was unreactive since the overlying slab was so shallow ([video](#)). That same day skiers in a nearby area got the layer to propagate a fracture since the slab was thicker and wind-loaded. On Monday, skiers in the southern Gallatin Range triggered a slide from 10 feet away on a steep, wind-loaded slope. The slide was 10-30 inches deep and broke 75 feet wide and ran 700 feet downhill proving that slopes with surface hoar that are even slightly wind-loaded are also unstable. Luckily there are not many of them. For today, the avalanche danger is rated [MODERATE](#) on wind-loaded slopes steeper than 35 degrees and [LOW](#) elsewhere.

Bridger Range Northern Gallatin Range Northern Madison Range

The northern mountain ranges are strong and stable ([video](#)). The snowpack averages three to four feet deep and slight concerns are old wind slabs or a layer of facets one foot off the ground on more northerly slopes. Other than an occasional poor result in a stability test we have not had avalanche activity involving old layers or any signs of instability for over a week (check out the "[What's Been Happening](#)" page for details). Today the avalanche danger is rated [LOW](#).

I wrote a short piece about surface hoar for *The Avalanche Review*. It won't be printed until April, but I posted it on our blog since it's relevant to the current stability. Read it here: <http://www.mtavalanche.com/blog/some-thoughts-surface-hoar>

Mark 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 mtavalanche@gmail.com or call us at 587-6984.

Avalanche Forecaster's Beer Social Fundraiser

The **Friends of the Avalanche Center** and **Montana Ale Works** are hosting an *Avalanche Forecaster's Beer Social Fundraiser* the evening of January 27th. Get more information and buy tickets here: <https://www.ticketriver.com/event/14010>

AVALANCHE EDUCATION and EVENTS

Take a look at our [Education Calendar](#) for all our classes being offered.

TONIGHT: Introduction to Avalanches with Field Course, MSU Bozeman, evening lectures 7-9:30 p.m. Wednesday and Thursday, January 21 and 22, with an all-day field session on Saturday or Sunday (your choice). Get more information and register here: <https://www.ticketriver.com/event/13090>

Advanced Avalanche Workshop with Field Course, MSU Bozeman, evening lectures 7-9:30 p.m. Wednesday and Thursday, January 28 and 29, with an all-day field session on Saturday. Get more information and register here: <https://www.ticketriver.com/event/12445>

Gallatin Valley Snowmobile Association Poker Ride, Buck Ridge, Highway 191, Saturday, January 24. Beacon clinic too! More information here: <http://gvsa.net/>

1-hour Avalanche Awareness for Snowmobilers, West Yellowstone, 7 p.m., Saturday, January 24, Holiday Inn.

1-hour Avalanche Awareness, Dillon, UM Western, 6:30 p.m., Tuesday, January 27.

1-hour Avalanche Awareness for Snowmobilers, West Yellowstone, 7 p.m., Saturday, January 31, Holiday Inn.

1-hour Avalanche Awareness for Snowmobilers, Lewistown, 9 a.m. and 11:30 a.m., Saturday, January 31, Fergus Country Trade Center. More info here: <http://www.mtavalanche.com/images/15/thunderstruck-13-premiere-and-avalanche-classes>