

GNFAC Avalanche Forecast for Fri Feb 9, 2018

Good Morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Thursday, February 9th at 7:15 a.m. Today's advisory is sponsored by [Spark R&D](#) and [Stronghold Fabrication](#). This advisory does not apply to operating ski areas.

The Gallatin National Forest Avalanche Center is issuing a Backcountry Avalanche Warning for the mountains near **Cooke City**. Over three feet of snow in the past three days combined with strong westerly winds is creating very dangerous avalanche conditions. The avalanche danger is rated **HIGH** on all slopes. Natural and human triggered avalanches are likely today. Some slopes have the potential to produce very destructive avalanches that could reach valley bottoms. Avalanche terrain and avalanche runout zones should be avoided.

Mountain Weather

Over the past 24 hours the mountains around Cooke City picked up 8-10" of new snow while the rest of the advisory area picked up 1-2". At 5 a.m. temps range from the single digits F in the Bridgers to teens and 20's elsewhere. Winds are blowing 15-30 mph out of the W-NW with ridgetop gusts around Hyalite and Big Sky breaking 40 mph. Today, temps will warm into the teens to low 20's and winds will continue to blow 15-30 out of the west. Light snow will linger in the mountains with an additional 1-2" possible. Snow moves out of the region by this evening and this weekend looks to be cold and dry.

Snowpack and Avalanche Discussion



Cooke City

Avalanche Warning

If you manage to get into the backcountry around Cooke City today, there will be plenty of avalanche hazard to deal with. Nearly two weeks of consistent snowfall, combined with recent strong winds, is creating very dangerous avalanche conditions. Yesterday, Doug and Alex avoided all avalanche terrain and runout zones while riding north of town ([video](#)).

Our biggest issue is new snow and wind loading that will add stress to the snowpack. Avalanches failing in the new snow or on weak layers deeper in the pack are both a concern ([photo](#)). There is potential for large and destructive avalanches to hit low angle terrain and/or valley bottoms, so be extra cautious when traveling underneath steeper slopes. Avoiding all avalanche terrain is recommended today as the snowpack works overtime to adjust.

Today, very dangerous avalanche conditions exist and the avalanche danger is rated **HIGH** on all slopes.



Bridger Range Gallatin Range Madison Range Lionhead Range

The main avalanche concern in the mountains around Bozeman, Big Sky and West Yellowstone is wind loading. Strong westerly winds have loaded slopes below ridgelines and cross loaded terrain features ([video](#)). Yesterday, a skier up Hyalite in the northern Gallatin Range observed small natural avalanches in wind loaded terrain ([photo](#)). Today, I don't expect wind slabs to be hair trigger, but they could fail under the weight of a skier or rider. In addition to wind slabs, cornices have grown significantly over the past week. These large chunks of snow will be under a lot of stress from recent loading so give them space both on and below ridgelines.

A secondary problem is a layer of buried surface hoar. This layer exists mainly in the mountains south of Big Sky and near West Yellowstone. On Wednesday, I found this layer on a sheltered, northwest facing slope in the Taylor Fork. It consistently produced unstable results in my stability tests ([video](#), [video](#), [photo](#)). This layer has not produced widespread instability and is getting stronger, however, it's something to look for when skiing or riding in the southern mountains.

Today, human triggered avalanches are possible and the avalanche danger is rated **MODERATE**. Evaluate snow and terrain carefully before committing to steeper slopes.

If you get out and have any avalanche or snowpack observations to share, drop a line via our [website](#), email (mtavalanche@gmail.com), phone (406-587-6984), or Instagram (#gnfacobs).

White Heat Tracks Project seeks your input

The aim of the White Heat Project is to generate new and usable knowledge on risk-taking behavior, and on factors behind decision errors in avalanche terrain in particular. The White Heat Tracks project is an extension to the previous "SkiTracks" project, and is a collaboration between a group of researchers at UiT The Arctic University of Norway, in Tromsø; Montana State University, in Bozeman, USA; and Umeå University, in Umeå, Sweden. We are asking people to complete a decision-making survey: (https://montana.qualtrics.com/jfe/form/SV_74aRQuWMj0wbJHv) and if they have time and energy, also submit GPX tracks of their backcountry trips to "tracks@montana.edu"

More information can be found here:

<http://www.montana.edu/snowscience/tracks.html>

And here: <http://www.montana.edu/news/17430>

Upcoming Avalanche Education and Events

Events and Education Calendar

BOZEMAN

Feb. 9 and 10, **Companion Rescue Clinic**, [Info and Register](#)

Feb. 28th, **Know Before You Go** avalanche awareness, 7:00 p.m. @ Procrastinator Theater, MSU

March 2nd and 3rd, **SheJumps Companion Rescue Clinic**, [Info and Register HERE](#)

March 2nd, **Avalanche Awareness**, 6-7:00 p.m. Bozeman Split Fest

March 7th, **Avalanche Awareness**, 6-7:30 p.m. @ REI

DILLON

Feb. 24th and 25th, **Snowmobile intro to avalanches w/ field course**. More info:
<https://msuextension.org/conference/>.

WEST YELLOWSTONE

Feb. 10th, **Avalanche Awareness**, 7-8 p.m. at West Yellowstone Holiday Inn Conference Center

COOKE CITY

Every Friday and Saturday, **Current Conditions Update and Avalanche Rescue**, Friday 6:30-7:30 p.m. at The Soda Butte Lodge in February. Saturday anytime between 10-2 @ Round Lake.