

## **GNFAC Avalanche Forecast for Fri Apr 27, 2018**

Good Morning. This is Alex Marienthal with spring snowpack and weather information on Friday, April 27<sup>th</sup> at 6:00 a.m. The Gallatin National Forest Avalanche Center has stopped issuing daily avalanche advisories for the season. This information will be updated Monday morning. Bridger Bowl is closed for the season and backcountry conditions exist.

### Mountain Weather

Temperatures this morning are low to mid-30s F and wind is southerly at 5-10 mph. The mountains have not received any new snow since Monday. Today will be clear with temperatures reaching high 50s F and easterly wind at 5-15 mph. Temperatures will remain above freezing tonight and tomorrow, and wind will shift to southwest at 10-20 mph. A cold front Saturday night will bring rain, followed by snow through Monday. Expect precipitation totals between 0.5 and 1" of water equivalent with 3-5" of snow possible in the mountains south of Bozeman by Monday.

### Snowpack and Avalanche Discussion



**Bridger Range   Gallatin Range   Madison Range   Lionhead Range   Cooke City**

Well above freezing temperatures will make wet avalanches possible today, and wet loose and wet slab avalanches may become more likely this weekend ([photo](#), [photo](#)). A quick spring storm last Monday deposited 12-18" of heavy snow throughout the mountains. Since then, sunny, warm spring days and below freezing temperatures overnight have made the snowpack melt and refreeze on all but high northerly facing slopes.

Near freezing temperatures and clear skies last night create a frozen and stable snowpack this morning. As temperatures warm above freezing and slopes receive direct sunlight today, the snowpack will melt and lose strength, and wet snow avalanches will become more likely. Above freezing temperatures are forecast tonight, which will make the snowpack start wet and unstable tomorrow morning. Rain up to 9,000 feet is possible late Saturday and Sunday morning. Heavy rain on a wet snowpack can create large wet slab avalanches.

Avoid travel on steep slopes and be aware of potential avalanche terrain overhead if the snowpack is wet and unsupportive, or if there is heavy rain. Wet snow avalanches could be large, destructive and run long distances. Hit the trail early and finish early before the snowpack melts and weakens. If the snowpack didn't freeze overnight, find alternate plans (e.g., fishing, climbing) or find slopes with more stable snow. Cornices will lose strength with warm temperatures and become easier to trigger or break naturally ([photo](#), [photo](#)). See general spring travel advice and avalanche information below.

### **Share your observations with us on Instagram! #gnfacobs**

Posting your snowpack and avalanche observations on Instagram (#gnfacobs) is a great way to share avalanche and weather information with us and everyone else this spring.

You can also drop a line via our [website](#) or email ([mtavalanche@gmail.com](mailto:mtavalanche@gmail.com)) and we will share pertinent avalanche, weather and snowpack info as timely as possible.

Spring weather can be highly variable and create a mix of avalanche problems to watch out for. Snow conditions and stability can change drastically from day to day or hour to hour. Anticipate rapid change and plan accordingly. Abundant snowfall over the winter ([graphic](#)) with more spring snow to come will make avalanches possible well into summer.

## NEW SNOW AND WIND LOADED SLOPES

Spring storms are notorious for depositing heavy amounts of snow in the mountains. Even with a deep and generally stable snowpack throughout the advisory area, heavy and rapid loads of new snow will decrease stability. The main problems to look out for are avalanches breaking within the new snow, wind slabs, and loose snow avalanches. The likelihood of triggering an avalanche spikes during and immediately after snowstorms. New snow instabilities tend to stabilize quickly, but it's a good idea to give new snow a day to adjust before hitting big terrain. New snow instabilities can be difficult to assess, and spring storms bond to old snow differently across aspects and elevations. Conservative terrain selection is essential during and immediately following storms. Wind loaded slopes and slopes steeper than 35 degrees should be avoided for 24-48 hours after new snow and wind.

New snow can quickly change from dry to wet on a spring day, and stability can decrease rapidly with above freezing temperatures or brief sunshine. New snow may bond well early in the morning, and then easily slide later. Wet loose slides are likely during the first above freezing temperatures or sunshine immediately after a storm. Anticipate changes in snow stability as you change terrain and over the course of the day. An early start is always an advantage. Be ready to change plans or move to safer terrain at the first signs of decreasing stability.

## WET SNOW AVALANCHES

Spring and wet snow avalanches go hand-in-hand. Above freezing temperatures, rain, and/or intense sunshine cause the snow to become wet and weak, and make wet avalanches easy to trigger or release naturally. Conditions tend to become most unstable when temperatures stay above freezing for multiple days and nights in a row.

Avoid steep terrain, and be aware of potential for natural wet avalanches in steep terrain above you, if you see:

- Heavy rain,
- Above freezing temperatures for more than 24 hours,
- Natural wet avalanches,
- Roller balls or pin wheels indicating a moist or wet snow surface,
- Or if you sink to your boot top in wet snow.

In general, if the snow surface freezes solid overnight, the snowpack will be stable in the morning and stability will decrease through the day as snow warms up. The snow surface hardness, rate of warming, duration of sunshine, aspect and elevation determine how fast stability will decrease through the day. Be aware that sunny aspects may have a wet snow avalanche danger while shadier slopes still have a dry snow avalanche danger. Getting off of steep slopes should be considered when, or before, the above signs of instability are present. Wet snow avalanches, whether loose snow or slabs, can be powerful, destructive and very dangerous. Conservative terrain choices, starting early in the day, and careful observations can keep you safe. See Eric's recent [video](#), and this [article](#) for more spring travel advice.

## CORNICES

Cornices along ridgelines are massive and can break under the weight of a person ([photo](#)). Prolonged above freezing temperatures and rain make them weaker and possible to break naturally. They can break off suddenly

and farther back than one might expect. Cornice falls can also entrain large amounts of loose snow or trigger slab avalanches. Stay far back from the edge of ridgelines and minimize exposure to slopes directly below cornices. Regardless of whether a cornice triggers a slide or not, a falling cornice is dangerous to anyone in its path.

### DISCLAIMER

It does not matter if new snow falls or not, avalanches will continue to occur until the existing snowpack is mostly gone. Always assess the slope you plan to ride with diligence and safety in mind. Do not let your guard down. Travel with a partner, carry rescue gear and only expose one person at a time in avalanche terrain.

Have a safe and enjoyable spring and summer!

Doug, Eric, and Alex

### **Info and Announcements**

May 3-4<sup>th</sup>, [Give Big](#) online fundraising campaign! A 24-hour fund-raising campaign for the Friends of the Avalanche Center and other local nonprofits.

Hyalite Canyon road is closed to vehicles and reopens May 16<sup>th</sup>.

On April 12, 2018, [Fisher Creek SNOTEL](#) reached its most SWE on record for one season!!!

Sledders, mark your calendar for May 19, the [2<sup>nd</sup> Annual Sled Fest](#) in Cooke City. It's a fundraiser for the Friends of the Avalanche Center and there will be a DJ, raffle prizes and BBQ on the mountain.