

## **GNFAC Avalanche Forecast for Fri Apr 19, 2019**

Good Morning. This Alex Marienthal with spring weather and snowpack information on Friday, April 19<sup>th</sup> at 6:45 a.m. The Gallatin National Forest Avalanche Center has stopped issuing daily avalanche forecasts for the season. We will issue weather and snowpack updates on Monday and Friday mornings through April. This bulletin does not apply to operating ski areas.

### Mountain Weather

The mountains received 4-6" of snow Monday through Wednesday with westerly wind at 20-40 mph Wednesday evening. Yesterday temperatures reached high 40s to 50s F under clear skies. This morning under partly cloudy skies temperatures are mid-30s to mid-40s F, and wind is west-northwest at 15-25 mph.

Today will be mostly sunny with temperatures in the high 40s to 50s F and westerly wind at 15-25 mph. Clouds will increase overnight with temperatures in the 30s F, and there is a chance for precipitation Saturday afternoon. Early Sunday scattered rain showers will turn to snow with temperatures in the high 20s to low 30s F, and wind will shift easterly at 20-30 mph. By Monday 3-6" of new snow is possible in the mountains.

### Snowpack and Avalanche Discussion



#### All Regions

Overnight, above freezing temperatures to 10,000 feet and cloudy skies prevented the snowpack from freezing. Wet snow avalanches are possible to trigger this morning, and they will become easier to trigger and run naturally as temperatures rise today. Yesterday, sunshine and warm temperatures caused widespread natural wet loose activity in the Bridger Range ([photo](#)), and Big Sky ski patrol noticed a large avalanche on Fan Mountain ([details](#)). Similar activity is likely today.

Without a freeze last night, wet avalanches might occur earlier in the day and break deeper into recent snow ([photo](#)). Tomorrow's story will be similar, except with rain instead of sunshine as a trigger. Travel early in the day to shady, high elevation slopes for the best chance at finding frozen or dry snow. Plan to be off of and out from underneath warm, sunny slopes before they receive direct sunlight or have a moist or wet snow surface. Consider the aspect and elevation of terrain you will have to cross when returning later in the day. Avoid steep slopes if you sink past your ankles in wet snow, or see roller balls and pinwheels. Other good options are fishing, mountain biking and rock climbing, or closing weekend at Big Sky. I hear kayaking is fun too.

Unfortunately, when the snowpack does not freeze overnight travel is difficult and avalanche activity is likely. Recent snow and large cornices ([photo](#)) also increase the chances for large natural avalanches today and tomorrow. Riding conditions and stability should improve on Sunday with cooler temperatures and snowfall.

## **GENERAL SPRING SNOWPACK AND TRAVEL ADVICE**

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 with more spring snow to come makes avalanches possible 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 aspect or elevation, 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 Alex'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, Alex, and Ian

## **SHARE YOUR AVALANCHE OBSERVATIONS**

We will update our [weather and avalanche log](#) daily through April. It is a valuable resource for backcountry travelers through winter and spring. If you have any avalanche observations, please share them with us to include in this database. Contact us via our [website](#), email ([mtavalanche@gmail.com](mailto:mtavalanche@gmail.com)), phone (406-587-6984), or Instagram (#gnfacobs).

## **Info and Announcements**

Bridger Bowl is closed for the season. Backcountry conditions exist and there is no avalanche hazard reduction or ski patrol services.

The Hyalite road is closed to motorized travel until May 16<sup>th</sup>. Bike and foot traffic is allowed.

We will issue weather and snowpack updates on Monday and Friday mornings for most of April, and update our weather log daily.