GNFAC Avalanche Forecast for Mon Apr 19, 2021

Good Morning. This is Alex Marienthal with a spring weather and snowpack update on Monday, April 19th. 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.

Mountain Weather

Last night the Bridger Range received 7" of new snow, near Cooke City got 2", Hyalite and Big Sky got 1" and near West Yellowstone got zero. This morning temperatures are teens F, except near West Yellowstone where temperatures are high 20s F. In the Bridger Range wind is easterly at 20-25 mph with gusts to 40 mph, and elsewhere wind is northerly at 5-10 mph. Today, temperatures will be teens to mid-20s F with wind out of the north-northeast at 5-15 mph. Continued snow showers will deliver 1-3" by this evening. Tomorrow, under clearing skies, temperatures will be teens to 20s F with light northerly wind. During the middle of the week, clear skies will accompany temperatures in the 30s to low 40s F with light to moderate east wind. The next chance for snow is late Thursday through the weekend

Snowpack and Avalanche Discussion

All Regions

New snow creates avalanche hazards for the next few days. Potentially dangerous avalanche conditions exist where the mountains received more snow, especially on slopes where east wind drifted the snow into thicker slabs that a person could trigger. When skies clear and temperatures warm tomorrow or Wednesday, expect wet loose avalanches which could be large and harmful where more new snow fell.

Carefully and continuously evaluate the stability of the new snow. Be extra cautious of wind-loaded slopes and watch out for drifts in less common locations due to the east and north winds. Anticipate stability to change through the day and between different aspects and elevations. Spring weather is highly variable which creates highly variable stability. Don't let your guard down, and continue to be diligent with safe travel practices. Carry proper, functional avalanche rescue gear and only expose one person at a time to avalanche terrain.

Avalanches breaking deeper than the new snow are unlikely, but not completely ruled out for the season. Over the past weekend, students in an avalanche class near Big Sky found the weak, sugary snow at the base of the snowpack still exists on cold, shady slopes (**photo**). Keep this weak layer in mind for the possibility of deeper wet slabs if there are extended above freezing temperatures, or the small chance dry slabs could break on this layer on cold, shady slopes. Our **season snowpack summary video** highlights this poor snowpack structure. See below for additional general spring snowpack and travel advice.

We will issue spring snowpack and weather updates each Monday and Friday through April, or as needed, and we will share relevant avalanche and snowpack information on our website and social media. If you get out, please send us your observations no matter how brief. You can submit them via our **website**, email (**mtavalanche@gmail.com**), phone (406-587-6984), or Instagram (#gnfacobs).

Announcements, Avalanche Education and Events

Bridger Bowl is closed, and backcountry conditions exist (**video**). There is no avalanche mitigation or ski patrol rescue. Please stay clear of work areas, snowmobiles, chair lifts and other equipment.

See our **education calendar** for an up-to-date list of all local classes.

GENERAL SPRING SNOWPACK AND TRAVEL ADVICE

Spring weather can be highly variable and create a mix of avalanche problems. 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 fresh snow a day to adjust before hitting big terrain. New snow instabilities can be challenging to assess, and spring storms bond to old snow differently across aspects and elevations. Conservative terrain selection is essential during and immediately following storms. Avoid wind-loaded slopes and slopes steeper than 35 degrees 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 the 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,
- Rollerballs or pinwheels 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, Alex, Ian and Dave