GNFAC Avalanche Forecast for Mon Apr 22, 2019

Good Morning. This is Alex Marienthal with spring weather and snowpack information on Monday, April 22nd at 7:00 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

On Saturday rain fell up to 10,000' with more than 1" of water in the Bridger Range and up to 0.5" near Big Sky and Cooke City. Sunday morning temperatures dropped to low 30s F and the mountains received 3-5" of snow. This morning temperatures are high 20s F and wind has been easterly at 5-15 mph. Today temperatures will reach 40s F under clearing skies, and wind will shift westerly at 5-10 mph.

Through the next week daytime high temperatures will be near 50 F with overnight lows near 30 F, and wind will be westerly at 10-20 mph with gusts to 30 mph. Expect mostly clear, dry weather with increased cloud cover Wednesday through the second half of the week. Cooler, wet weather is expected next weekend.

Snowpack and Avalanche Discussion

All Regions

At the end of last week temperatures reached 50 F for three consecutive days without overnight temperatures cool enough to freeze the snowpack. Widespread large natural wet slides were observed on Thursday (**photo**, **details**) and Friday (**photo**, **details**), which involved recent heavy new snow from the previous week (**photo**). On Saturday a very large natural wet slab was observed near Cooke City, which was 3-6 feet deep through the entire season's snowpack (**photo**). Other large, destructive wet slides occurred throughout the region (**photo**).

The last two nights of freezing temperatures and yesterday's high temperatures in the 30s F gave the snowpack a breather from the heat. Wet snow avalanches are unlikely this morning and will become easier to trigger through the day. Natural wet slides are possible this afternoon. Slides will likely be confined to the upper 6-12" of the snowpack, but deeper slides are possible where the snowpack is wet and unsupportable below the snow that fell yesterday. Sinking above your boot in wet snow is a sign that deeper wet slides are possible. Travel on slopes with a supportable, dry or frozen surface and plan to be off of them before the snow gets wet.

This week expect classic spring snowpack conditions, with great variability throughout the day and between aspect and elevation (**video**). Ideally the snowpack will be mostly frozen and stable in the morning, and then it will inevitably soften and lose strength through the day. Be diligent with route finding and snowpack assessment, anticipate changing conditions, pay attention to unexpected findings, and have a safe route to bail at any time. Consider terrain you will have to travel across or underneath later in the day when natural wet slides may occur or be easier to trigger. See below for general spring snowpack and travel advice.

GIVE BIG GALLATIN VALLEY

May 2-3 from 6pm-6pm. Give Big Gallatin Valley is a 24-hour online and live celebration of giving created to connect generous community members with the causes they care about most. Here is the link for more info and to support the Friends of the Avalanche Center during this event. Presented by the Yellowstone Club Community Foundation, and powered by the Bozeman Area Community Foundation.

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

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

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), 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 16th. 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.

Events and Education Calendar.