GNFAC Avalanche Forecast for Mon Apr 23, 2018

Good Morning. This is Alex Marienthal with spring snowpack and weather information on Monday, April 23rd at 7:00 a.m. The Gallatin National Forest Avalanche Center has stopped issuing daily avalanche advisories for the season. This information will be updated Friday morning. Bridger Bowl is closed for the season and backcountry conditions exist.

Mountain Weather

At 5 a.m. the Bridger Range has 12" of heavy new snow and the mountains near Big Sky have 8". SNOTEL is not reporting data elsewhere, but webcams show new snow in Cooke City and West Yellowstone (**photo**). Temperatures are 20s F this morning and will reach mid-30s F today. Wind will be northeast at 15-25 mph. Snow showers are expected through this afternoon and the mountains could get 4-6" today.

Tuesday will be mostly clear with temperatures in the 40s F. There is a chance for light precipitation Wednesday evening, and the rest of the week will be mostly sunny with highs in the 40s F and overnight lows in the 20s F. Snow and rain appear in the forecast again next weekend.

Snowpack and Avalanche Discussion

 Bridger Range Gallatin Range Madison Range Lionhead Range Cooke City

Heavy new snow will be unstable and create dangerous avalanche conditions today and the next few days. Last night the mountains got 8-12" of snow equal to .8-1.2" of snow water equivalent (SWE), and more is expected today. Avalanches in the new snow are likely today. They will be deeper and easier to trigger on wind-loaded slopes, but likely and dangerous on all steep slopes. Wind loaded slopes and slopes steeper than 35 degrees should be avoided today, and approached with extra caution for the next few days.

Above freezing temperatures and sunshine after the storm will make wet snow avalanches easy to trigger and run naturally. These will be large and run long distances. Be aware of steep terrain above you as temperatures warm through the day, or when the sun comes out. Avoid steep slopes if you see signs of instability like natural avalanches, pinwheels of snow, or the surface becomes wet. Conditions will change rapidly the next few days, and become more stable toward the end of the week. See our 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) 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 3-4th, **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 16th.

On April 12, 2018, **Fisher Creek SNOTEL** reached its most SWE on record for one season!!!

Sledders, mark your calendar for May 19, the **2nd 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.