GNFAC Avalanche Forecast for Fri Apr 13, 2018

Good Morning. This is Alex Marienthal with spring snowpack and weather information on Friday, April 13th at 7:00 a.m. The Gallatin National Forest Avalanche Center has stopped issuing daily avalanche advisories for the season. We will update this bulletin tomorrow morning. This bulletin does not apply to operating ski areas.

Mountain Weather

Winter is here. Still here. A major spring storm ends this morning, and over the last 24 hours it dumped 20-30" in the Bridger Range, 14-20” in Hyalite and Big Sky, and 6-9” near West Yellowstone and Cooke City. Wind overnight was west to northwest at 15-25 mph with gusts of 30-45 mph. This morning, temperatures range from low teens to mid-20s F, and will be 20s to low 30s F today. Snowfall tapers off this morning with another 2-3” possible.

This weekend will be mostly cloudy with a few periods of sunshine possible and temperatures in the 30s to low 40s F. Light snow showers Saturday and Sunday evenings could drop 2-4” with more expected late Monday to Tuesday.

Snowpack and Avalanche Discussion

Bridger Range

Avalanche Warning

Very dangerous avalanche conditions exist in the Bridger Range. Bridger Bowl got 30" of snow equal to 2.5" of snow water equivalent over the last 24 hours. Ski patrol was up early and reported large natural avalanches that ran long distances. Natural and human triggered avalanches are likely today and all avalanche terrain should be avoided. Avalanche Danger is rated HIGH on all slopes.

Gallatin Range Madison Range Lionhead Range Cooke City

Since Wednesday morning, the mountains received 16-24” of snow equal to 1.5-2.5” of snow water equivalent (SWE). Dangerous avalanche conditions exist today, and recent heavy snow will create serious avalanche hazards through the weekend. Today, slabs or loose avalanches of new snow are likely for a person to trigger, and natural avalanches are possible. Avalanches will be more reactive or break naturally where wind overnight and today drifts snow into deeper slabs. The recent snow is a lot of weight and stability tests could be untrustworthy. Avalanche terrain should be avoided today, especially where wind loaded.

This weekend, cautious route finding and conservative terrain selection are essential. Be cautious of steep slopes and wind-loaded terrain. Avalanches will remain possible and large enough to bury a person, or powerful enough to carry someone through trees or over cliffs. Similar to this slide triggered near Cooke City last Monday (**photo**). Be cautious of steep terrain above you, where large natural wet avalanches could release as the recent snow warms up with sun and above freezing temperatures. New snow stability changes rapidly in the spring. See our

general spring travel advice below.

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

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.

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 non-profits.

Hyalite Canyon road is closed to vehicles and reopens May 16th.

Yesterday morning (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.