

GNFAC Avalanche Advisory for Sat Mar 26, 2011

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Saturday, March 26, at 7:30 a.m. **Montana Ale Works**, in cooperation with the **Friends of the Avalanche Center**, sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Over the past 24 hours the mountains around Cooke City have received 5-6 inches of new snow; the mountains around Bozeman, Big Sky and West Yellowstone have picked up 1-2 inches of snow. Temperatures this morning are ranging from 10-20 degrees F and winds are blowing out of the WSW at 10-20 mph with gusts near Big Sky reaching close to 30 mph. Today, mountain temperatures will climb into the high 30s to low 40s F under mostly cloudy skies and winds will stay out of the WSW at 10-20 mph. Light snow showers are possible in the mountains throughout the day, with a better chance of snow tonight into tomorrow. 2-3 inches of snow is possible in the mountains by tomorrow morning.

Snowpack and Avalanche Discussion

The Bridger, northern Madison and northern Gallatin Ranges, the mountains around Cooke City and the Washburn Range:

It's been 5 days since the last significant load was applied to the snowpack. This has allowed the pack time to adjust. As Mark mentioned yesterday, when snow has time to adjust it deforms slowly making it more viscous and far less likely to shatter like a pane of glass. Time is just one factor that has helped slow avalanche activity over the past few days. Warm temperatures and the lack of a widespread weak layer have also contributed to increased stability. Yesterday, I toured into Hyalite and found a deep, stable snowpack on north and east facing slopes below 9,500 ft. Even though time, temperature and the lack of a widespread weak layer are creating generally stable conditions, the possibility of triggering an avalanche in the backcountry still exists.

Today's primary avalanche concern will be wind slabs, which have formed over the past few days due to west to southwest winds. Upper elevation slopes with a north and east component will be the most likely to find wind deposited snow. Yesterday, a skier on Mt Blackmore triggered a small wind drift which triggered another small avalanche mid slope ([photo](#)). As we have seen more than once over the past few weeks, smaller slides make good triggers for larger slides. Although triggering a slide on deeper layers will be difficult, it will not be impossible ([photo](#), [photo](#)). Staying on gentler slopes in wind-affected terrain and avoiding likely trigger points such as rock outcroppings where the snowpack is shallow will help decrease the chance of triggering a slide.

Today, human triggered avalanches are possible on wind loaded slopes steeper than 35 degrees where the avalanche danger is rated **MODERATE**. All other slopes have a **LOW** avalanche danger.

The southern Madison and southern Gallatin Ranges and the Lionhead area near West Yellowstone:

Driving home from Utah on Thursday I was impressed by the size of the snow banks from Island Park to West Yellowstone. Walls of snow 7-8 feet high went on for miles, creating a tunnel like feel. When snow this deep is found on the side of the road, there is no question even deeper snow will be found in the high country. It is a bit counter intuitive, but a deeper snowpack usually means a stronger snowpack. There are a few reasons for this. One – a deeper snowpack helps reduce strong temperature gradients, which produce weak-faceted crystals, most common in a shallow snowpack. Second – a deep snowpack usually means there is less time in-between storms,

helping reduce the formation of surface hoar and/or near surface facets, both persistent weak layers found in southwest Montana.

Because the southern mountains have a strong snowpack and have received less snow over the past week, generally safe avalanche conditions exist. Today, human triggered avalanches are unlikely but not impossible and the avalanche danger is rated **LOW**.

I will issue the next advisory tomorrow morning at 7:30 a.m. If you have any snowpack or avalanche observations, drop us a line at mtavalanche@gmail.com or call us at 587-6984.

Ride in honor of Steve Green

Next weekend on Saturday, April 2nd, ride Buck Creek Ridge in honor of Steve Green who died in an avalanche last April in McAtee Basin. Meet at 9:30 a.m. at the Buck Creek parking lot near the Corral.