

GNFAC Avalanche Advisory for Sun Apr 3, 2011

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, April 3, at 7:30 a.m. **Native Optics**, in cooperation with the **Friends of the Avalanche Center**, sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Yesterday, a fast moving cold front moved through southwest Montana producing strong winds, lightning, and precipitation in the form of both rain and snow. This fast moving weather disturbance deposited 3-4 inches of high density snow in the Bridger and northern Gallatin Ranges as well as the mountains around Cooke City. All other areas received 1-2 inches of snow. Winds spiked during the frontal passage, reaching over 60 mph, but have decreased significantly. Currently, winds are blowing out of the WNW at 15-25 mph and should continue along these lines for the remainder of the day. Temperatures are currently in the single digits to high teens and will climb into the 20's and 30's F by this afternoon. Today, mountain snow showers are likely with an additional 1-3 inches possible by this evening. Southwest Montana will see a slight break in the weather tonight into tomorrow.

Snowpack and Avalanche Discussion

The Bridger, Gallatin and Madison Ranges, the Lionhead area near West Yellowstone, the mountains around Cooke City and the Washburn Range

The snowpack is transitioning. The pack is trying to hang on to its winter coat, but at the same time it can't resist the power of spring - much like skiers and riders this time of year. Yesterday, I skied Mt Ellis and found variable conditions. On lower elevation slopes, the snowpack was becoming **isothermal** while on upper elevation slopes, mainly above 8,000 ft, the snowpack was deep and mostly dry with only the top 6-8 inches being moist (**profile**).

With March leaving like a lion, now is no time to forget about avalanches. The slides near Sacajawea in the northern Bridger Range last week, as well as the slides on Lionhead near West Yellowstone are a good reminder of this (**photo**, **photo**, **video**). Although it has been close to a week since the last significant snowfall, the snowpack continues to work towards equilibrium. A combination of temperature fluctuations, new snow, saturated snow and wind has recently affected the snowpack at all elevations.

Today, the primary avalanche concern will be wind slabs. Dry snow, mainly on slopes above 9,000 feet has been transported onto leeward slopes by strong NW winds. Upper elevation slopes with an east facing component will be the most likely to hold pockets of wind drifted snow. Newly formed wind slabs should remain small in size, but could potentially push a skier or rider into trees, rocks or over cliffs. Although unlikely, the potential for triggering a larger slide does exist. Avoiding steep-rocky terrain, specifically where the snowpack is shallow will reduce the possibility of triggering a slide on deeper layers. With a good freeze last night and cooler temperatures forecasted through the day, wet snow avalanches are unlikely.

Today, human triggered avalanches are possible on wind loaded slopes where the avalanche danger is rated **MODERATE**. Slopes that have not received a wind load have a **LOW** avalanche danger.

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.

Last Advisory

The last avalanche advisory of the winter is Sunday, April 10th. That will be our 145th advisory of the season—more than any other in our 21 year history.