GNFAC Avalanche Advisory for Wed Mar 27, 2013

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, March 27 at 7:30 a.m. **Helio Collective** and **Bountiful Table** sponsor today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Yesterday, under partly cloudy skies, mountain temperatures rose into the mid-thirties with light west to southwest winds. Overnight temperatures dropped to 20 degrees, but these will quickly rise into the 40s today under sunny skies. Ridgetop winds will remain light at 5-15 mph out of the west to southwest. Tonight, clear skies will help drive the temperature down to below freezing. No new snow is expected in the coming days, just a strong warming trend.

Snowpack and Avalanche Discussion

Wet Snow Avalanche Danger

Yesterday, temperatures were not warm enough to create many wet avalanches. This will change today. Sunny skies with temperatures reaching the 40s will quickly wet the snow surface. Liquid water breaks bonds in the snowpack and weakens it quickly. Neither wind nor clouds will impede this process. Signs of increasing avalanche danger include sinking past your boot tops in moist snow and having large pinwheels roll downhill.

Mark and I investigated the crown of an avalanche near Ross Peak in the Bridger Range (**photo**) yesterday. It broke 3-4 feet deep on a thin layer of facets last Thursday or Friday immediately after the snowstorm. But that was not the interesting part. What surprised us was an overhang of snow and ice on the crown face resulting from accelerated creep (**photo**). Saturday's above freezing temperatures and sunny skies melted snow which lubricated a thick, impermeable ice crust a foot and a half under the surface. This caused the overlying slab to slide forward before refreezing. This spring-time phenomenon is not unusual, but it was my first time to see it (**video**) and I got pretty excited. Finding it drives home the point that the snowpack's structure is in rapid transition. Water percolating through the snow is not good for stability.

Today the wet snow avalanche danger will rise to **CONSIDERABLE** on all aspects getting sun. I expect wet, loose avalanches to be the norm today.

Bridger Range Madison Range Gallatin Range

Lionhead area near West Yellowstone Cooke City

Although today's main avalanche concern is wet snow, many shaded, high elevation slopes will remain dry. Overall, these areas have good stability; layers in the snowpack are strong. Even though I use words like *stable*, *strong*, and *good* to describe the danger, I would be negligent if I didn't mention two concerns:

1. Overhanging cornices will weaken with warmer weather and break free. A tumbling bus-sized cornice is dangerous alone, but it's also effective at triggering avalanches (photo).
2. In isolated areas the snow from last week did not bond to the underlying ice crust. This caused a few small avalanches near Cooke City (**photo**).

For today, the dry snow avalanche danger is rated **LOW** throughout southwest Montana. A low danger does not mean there are no dangers.

Mark 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.

Take Note:

Our 136th and last avalanche advisory will be on Sunday, April 7th.