

GNFAC Avalanche Forecast for Wed Apr 4, 2012

Good Morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, April 4 at 7:30 a.m. Alpine Orthopedics and Grizzly Outfitters sponsor today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Mountain temperatures reached the mid to high 40s yesterday under sunny skies. Winds have been west to southwest at 10-20 mph. Last night was clear, but not very cold. Bridger Bowl reads the mid-thirties this morning while other areas are in the high 20s to 31F; barely freezing. A cold front is headed our way from the Pacific coast. Today will start sunny, but later this morning high clouds will roll in as winds become stronger from the southwest. Mountain temperatures will rise into the high 40s and cool off significantly tonight. Tomorrow and Friday look to be cloudy, twenty degrees colder and snowy.

Snowpack and Avalanche Discussion

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

Air temperatures were above freezing last night in the Bridger Range and only slightly below 32F everywhere else. Today's increasing cloud cover and moderate breeze should keep wet avalanche activity from getting out of hand. This morning's sun will be the crux period before clouds have a chance to veil the sun. The surface snow got wet and crusts started to break down yesterday afternoon. The snow surface froze last night, but was not cold enough long enough to penetrate very far into the pack. Any direct solar radiation today will melt the snow surface quickly. I have two avalanche concerns:

1. Wet, loose avalanches on any slope getting sun exposure.
2. As these wet slides slurry downhill they gain mass and could trigger a slab avalanche (wet or dry). These avalanches would be deep since the weakest layer is large facets near the ground.

Not all of our snow is wet. Yesterday, Moonlight Basin Ski Patrol was able to trigger wind slabs two feet thick while a skier on shaded aspects in the northern Bridger Range was treated to dry powder. Mark rode into Taylor Fork and dismantled the weather station. During his tour he found a small avalanche on a wind-loaded slope. The south face of Skyline Ridge has been cooked by the sun and he saw drainage channels, a sign of liquid water moving in the snowpack. When slopes get initially wet in the spring the instability spikes quickly, but once channels form and especially if they re-freeze, they stabilize the slope just as quickly. The primary weak layer in the snowpack is facets at the ground ([photo](#)). Moist or dry, these can still propagate fractures. Deep slab instability is a low probability, high consequence avalanche danger. Today the danger is rated [MODERATE](#) on all slopes. The wet snow avalanche danger will rise with the morning sun to [CONSIDERABLE](#) if clouds do not shield the slope.

The mountains around Cooke City:

The mountains around Cooke City had mountain temperatures reach the mid-40s yesterday afternoon followed by nine hours of below freezing temperatures last night. Today's primary avalanche concern is wet, loose, point release avalanches within the surface snow. These mountains lack widespread faceting at the ground ([video](#)). Today the avalanche danger is [LOW](#), but could rise to [MODERATE](#) if the surface snow gets wet from solar

radiation.

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.

Our last advisory of the season will be Easter Sunday, April 8th.