

GNFAC Avalanche Advisory for Wed Dec 15, 2010

Good Morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, December 15, at 7:30 a.m. Montana Fish, Wildlife and Parks Snowmobile Program sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

A fast moving cold front and blizzard conditions moved through yesterday afternoon. Southwest winds were gusting to 70 mph as we got pelted by ball bearing shaped graupel snow. Two to three inches fell in the mountains around Bozeman, 3-5 inches near Big Sky, 7 inches in Taylor Fork and a foot near West Yellowstone and Cooke City. Temperatures are in the single digits and winds are west to southwest at 15-25 mph. Today will be beautiful with partly cloudy skies and temperatures reaching the high teens.

Snowpack and Avalanche Discussion

The mountains around Cooke City and Washburn Range:

Since Friday over 2.5 feet of snow (2.7" SWE) has fallen in the mountains outside Cooke City, a foot of it coming yesterday. Southwest winds blew steady at 25 mph with gusts reaching 55. Our weakest layer in the snowpack was already buried 12" deep and yesterday's snow will sink it further. Sugary facets sitting on an ice layer on south-facing slopes and feathery crystals of surface hoar on other aspects will be straining under this sudden load of snow. On lower elevation slopes a skier saw the facet-ice layer combination cracking with just a few inches of snow ([photo](#)) which leads me to believe that it will be very unstable at the higher elevations which have a few feet. For today, the avalanche danger is rated [HIGH](#) on all wind-loaded slopes and [CONSIDERABLE](#) everywhere else.

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

The Big Sky area has a weak layer of facets and surface hoar buried almost a foot deep. Even though yesterday's snowfall only measured 3-5 inches, the strong winds swirled extra snow onto many slopes. Yesterday, a skier in Beehive Basin experienced shooting cracks as he skinned uphill, a sure sign of instability that was also confirmed with his low test score on this layer (ECTP 7, Q1). Eric saw avalanches on these facets Sunday at Buck Ridge ([video](#)) and a skier triggered a slide on Yellow Mountain over the weekend too ([photo](#)). Yesterday's snow and wind has not helped matters. Below treeline the Big Sky Ski Patrol was able to ski trigger 12-18" deep wind slabs on a road cut—a low consequence, but high value stability check.

We have not been able to find these weak layers near Taylor Fork and West Yellowstone. However, a foot of new snow with strong winds has elevated the avalanche danger anyway. Fresh slabs of windblown snow will be easy to trigger today and I expect to see a few natural slides too. For today, the avalanche danger from Big Sky to West Yellowstone is rated [CONSIDERABLE](#) on all wind-loaded terrain and [MODERATE](#) on all other slopes.

The Bridger and northern Gallatin Ranges:

The Bridger and northern Gallatin Ranges only got a few inches of graupel yesterday, but winds scraped the upper elevations and created shallow wind slabs that a skier or rider could trigger. Six to nine inches has fallen in the last four days and on Sunday skiers were able to trigger small, shallow avalanches off the Blackmore trail up Hyalite ([photo](#)) and also in the northern Bridgers on Monday. For today the avalanche danger is rated

MODERATE.

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.

Upcoming Avalanche Education

Avalanche Awareness for Snowmobilers in West Yellowstone Thursday, December 16th from 12 p.m. to 5 p.m (lectures), with an all day field day Friday, December 17th. For more information check out <http://www.mtavalanche.com/education/classes/snowmobilers> or call us at 587-6984.

Other News

This year REI has chosen Friends of GNFAC as their charity of choice. By making a donation through REI you can help The Friends continue to support the Avalanche Center and promote avalanche education throughout southwest MT.