# GNFAC Avalanche Advisory for Tue Dec 4, 2012

Good Morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Tuesday, December 4 at 7:30 a.m. Today's advisory is sponsored by Cooke City Motorsports in partnership with the Friends of the Avalanche Center. Bridger Bowl opens Friday and is conducting avalanche control, so be careful traveling inside the ski area boundaries. Our next advisory will be issued tomorrow morning.

Mountain Weather

Under partly cloudy skies there's no new snow to report. Mountain temperatures are in the teens to 20 degrees this morning with southwest winds averaging 10-20 mph and gusts to 30. A moist pacific system will increase cloud cover today. Winds will remain moderate as temperatures rise into the upper 20s. In the southern mountains 1-2 inches of new snow will fall by morning. The weather models show unsettled weather, so my hopes are high for more snow this week.

Snowpack and Avalanche Discussion

Bridger Range  Madison Range  Gallatin Range

Lionhead area near West Yellowstone

Mountains around Cooke City

The southern mountains have the most snow and the strongest snow. Above 8,000' three to four feet is on the ground. The snowpack is dense too. Eric and I measured almost nine inches of Snow Water Equivalency at Lionhead. More importantly, the snow structure is stable. So far we have been unable to find layers of weak facets. We assume high elevation slopes, especially those with a northerly aspect, will harbor some. But these slopes would be the exception rather than the rule. Since last Wednesday, the southern mountains got hit with large storms that dropped 2+ feet of water-laden snow. Mark's stability assessments in Cooke City (video) matched Eric and my findings in Lionhead (video): no cracking or collapsing, no fractures propagating in tests, no avalanche activity.

The northern mountains have two feet of snow on the ground. These mountains have good stability and a strong structure in most places, but not all. Northerly facing, upper elevation slopes have a layer of sugary facets near the ground. On Sunday, snowmobilers remotely triggered an avalanche on Buck Ridge in the 2nd Yellowmule. It broke 1-3 feet deep at the ground and shot 700 feet across the slope. The hill was heavily wind-loaded from the recent storm and the avalanche broke on facets. Eric and I investigated the slide yesterday (video, pictures, snowpit). The facets were not well developed, but they were obviously unstable enough to avalanche. Eric found a similar snow structure in Beehive Basin and Moonlight Ski Patrol is noting propagating fractures on this layer in their stability tests.

Winds have calmed in the last 24 hours, but they blew 40-50 mph with the storm. Wind-loaded slopes, especially upper elevation, northerly facing ones, are where the avalanche potential lives. For today, the avalanche danger throughout our entire advisory area is rated MODERATE on all wind-loaded terrain and LOW everywhere else.

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. Thank you.

EDUCATION

*Snowmobiler Introduction to Avalanches* at Greenup Performance in Black Eagle near Great Falls, MT, December 8, 9 a.m. to 2 p.m. FREE. No sign up required!

Snowmobiler Introduction to Avalanches with Field Course in Billings at Hi-Tech Motor Sports on December 12 and 13, 6-9 p.m. and the field course on January 20 in Cooke City. Sign up for this class HERE

Snowmobiler Introduction to Avalanches with Field Course in West Yellowstone on December 20 and 21. Sign up for this class HERE.

FREE 1 hour lectures:

December 12, REI in Bozeman, 6:30 p.m.