GNFAC Avalanche Advisory for Sat Dec 29, 2012

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Saturday, December 29 at 7:30 a.m. Today's advisory is sponsored by Cooke City Motorsports & Yamaha in partnership with the Friends of the Avalanche Center. This advisory does not apply to operating ski areas.

Mountain Weather

Over the past 24 hours a trace to one inch of snow fell in the mountains. Currently, temperatures are in the single digits and westerly winds are blowing 5-15 mph with gusts in the 20s. Today, temperatures will warm into the high teens to low twenties F and winds will continue to blow 5-15 from the west. Skies will become partly to mostly cloudy by this afternoon as a weak storm system approaches. Light snow is likely by tomorrow morning with 1-3 inches possible by tomorrow afternoon.

Snowpack and Avalanche Discussion

Bridger Range   Madison Range   Gallatin Range

Lionhead area near West Yellowstone   Cooke City

Triggering an avalanche today will be a lot like hitting the bull's eye on a dart board. It could take dozens of throws or you could get lucky (or in this case unlucky) on the first toss. Yesterday, I observed this 'dart board' scenario in the mountains around Cooke City. I was amazed at the terrain people were riding without triggering slides. That was, until we came across a slope that had recently avalanched (photo, video). This slide occurred on a southwest facing slope that was heavily wind loaded.

Today, the primary avalanche concern will be wind slabs. Yesterday, gusty WNW winds developed sensitive soft slabs on leeward slopes. Both the Moonlight Basin and Big Sky Ski Patrols reported triggering fresh wind slabs during control work. Also, a skier near Cooke City reported triggering soft slabs on east facing slopes below ridgelines.

Winds died down yesterday afternoon allowing recently formed wind drifts a little time adjust. In areas where wind deposited snow rests over a thin layer of facets, human triggered avalanches will be more likely. On slopes that lack near surface instabilities, fresh wind drifts will be more stubborn. This creates a tricky scenario. The best approach today will be to recognize and avoid wind loaded slopes, especially those in steep, upper elevation terrain.

There is a chance that slides could fail on faceted layers near the ground. Impacting deeper weak layers will be easiest on slopes that have a thin and variable snowpack. Once a weak layer collapses, it can propagate into areas where the snowpack is deeper (photo).

Right now more slopes are stable than unstable, but human triggered avalanches remain possible and the avalanche danger is rated MODERATE.

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.

ARTICLES

At the GNFAC we write articles for various publications: Carve, Montana Snowmobile Association Newsletter, The Avalanche Review. We also post these on our website, so if you are interested in reading more about avalanches check out "Our Articles" on the "Education" page. Recent ones include:

·   Temperature Induced Dry Snow Avalanches

·   Why dig a Snowpit?

·   Professional Secrets for a Quick Avalanche Rescue

·   Time: The Deciding Factor

EDUCATION

Thursday, January 3, 6:00 p.m., 1-hour Avalanche Awareness lecture at 406 Brewing Company, Bozeman.

Tuesday, January 8, 7:00 p.m., 1-hour Avalanche Awareness at Big Timber High School.

Wednesday, January 9, 6:30 p.m., 1-hour Avalanche Awareness at REI, Bozeman.

Thursday and Saturday, January 10 and 12, Rescue Clinic. Thursday at 6:00 p.m. at REI, Bozeman and Saturday at 10 a.m. in the field, location TBD. For more info and to register go http://www.rei.com/event/47692/session/64126

Saturday and Sunday, January 12 and 13, Snowmobiler Introduction to Avalanches with Field Course. For more information and to sign up: https://www.ticketriver.com/event/4979-snowmobiler-introduction-to-avalanches-w-field