GNFAC Avalanche Advisory for Tue Feb 26, 2013

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Tuesday, February 26 at 7:30 a.m. **Madison River Brewing Company** and **World Boards** sponsor today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Last night snow showers dropped 4-5 inches in the Bridger Range and the Yellowstone Club while all other areas got 1-2 inches. Winds switched from southerly to westerly late yesterday with the arrival of a cold front. Currently ridgetop winds are averaging 15-20 mph out of the west with gusts of 30. The Bridger Range is windier with averages of 25-30 mph and gusts near 40. Mountain temperatures have dropped into the single digits and will rise into the upper teens by this afternoon. A few scattered showers this morning will give way to clearing skies as high pressure builds tonight.

Snowpack and Avalanche Discussion

Bridger Range

The Bridger Range received five inches of 8% density powder. Strong ridgetop and gusty mid-mountain winds will actively load and build slabs over a foot deep. These new born wind drifts will break easily, especially with human triggers. Wind speeds of 25-30 mph will act as Miracle-Gro for cornices and drifts at all elevations. A secondary avalanche concern is a layer of sugary, faceted snow buried 2-3 feet deep. On Saturday skiers triggered a small avalanche on this layer at Flathead Pass (**photo**). This slide appears to be similar to the one triggered on Bridger Peak last Tuesday (**photo**). This instability is not widespread, but dangerous nonetheless. For today the avalanche danger is **CONSIDERABLE** on all wind-loaded slopes in the Bridger Range. All other slopes have a **MODERATE** danger.

Madison Range Gallatin Range

Lionhead area near West Yellowstone Cooke City

Wind slabs and buried weak layers are our two avalanche problems in southwest Montana (**video**). Yesterday my partner and I rode on Lionhead Ridge and watched the wind blow snow, feeding monstrous cornices. We stayed a healthy distance away from the ridgeline in case one of these overhanging chunks broke. Deeper in the snowpack a layer of facets buried 1.5-3 feet down is becoming harder to trigger. We dug four snowpits on different aspects and did stability tests in each one. All tests were taking a lot of force to initiate and propagate fractures on this layer. Furthermore, reports of collapsing and cracking (obvious red flags of instability) are decreasing. The faceted layers of concern vary, although their depth (less than three feet) is similar. Layers include:

- A very thin layer of facets on an ice crust,
- Feathery crystals of surface hoar,
- A layer of small facets up to a few inches thick,
- Thin snowpacks with their lower half consisting of sugary facets.

Although I like to geek out and identify these weak layers with my hand lens, in terms of assessing stability the grain type does not matter. If they break in stability tests or show red flag behavior, these slopes should be

avoided. Since Friday these layers have been reliably found near Cooke City, up Hyalite canyon, in Taylor Fork, Hebgen Lake area and Lionhead; basically everywhere. Given the wind-loading and buried weak layers, it's still possible to trigger avalanches, thus the avalanche danger is rated **MODERATE** on all slopes today.

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.

Collecting Data in Avalanche Terrain - A Survey of Backcountry Travelers

An MSU undergrad created a quick, three minute survey for one of his classes. Click on the link and take it. He'll be grateful.

http://www.surveymonkey.com/s/VD8SZTG

EDUCATION

West Yellowstone. The Friends of the Avalanche Center are giving a 1-hour *Avalanche Awareness* lecture, this Friday, March 1 at 7 p.m. at the Holiday Inn Conference Center.