

GNFAC Avalanche Advisory for Wed Feb 27, 2013

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, February 27 at 7:30 a.m. The **Yellowstone Club Community Foundation** in partnership with the **Friends of the Avalanche Center** sponsor today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Under partly cloudy skies there's no new snow to report. Yesterday, temperatures reached the 20s as winds calmed throughout the day. This morning, mountain temperatures are in the single digits with light ridgetop winds out of the west to southwest (15-20 mph). Skies will remain partly cloudy with light winds and temperatures warming into the low 20s. Tonight will become mostly cloudy, but offer no real chance of snow.

Snowpack and Avalanche Discussion

[Bridger Range](#) [Madison Range](#) [Gallatin Range](#)

[Lionhead area near West Yellowstone](#) [Cooke City](#)

Mark and his partner skied around [Beehive](#) and [Bear Basins](#) yesterday. What he found is indicative of the conditions throughout southwest Montana and his tour offers a few key lessons on the snowpack and travel.

Lesson 1: *The weakest layer in the snowpack (sugary facets), will be found in the upper three feet ([video](#)).* Other than slopes holding a thin snowpack, you do not need to dig to the ground to find this.

Lesson 2: *Many slopes are stable* and offer good skiing and riding. Either slopes lack a significant weak layer or the layer has strengthened and will not break in our stability tests. Mark found this on east facing slopes in Bear Basin.

Lesson 3: *If the snow structure looks weak (i.e. a layer of weak, large-grained facets supporting a dense wind slab) yet stability tests show strength, dig another pit.* Do not be afraid to throw out stable test results in a structurally weak snowpack since they represent "false-stable" conditions ([article](#)). Mark found a slope in Beehive with one foot of weak facets underlying a two foot slab. His tests showed stability but he did not believe it ([snowpit](#)). An hour later he visited Big Sky Snow Safety and learned they triggered a 100-foot wide avalanche with an identical structure and aspect ([photo](#)).

Lesson 4: *Slopes adjacent to avalanches are also unstable.* This lesson comes from Cooke City where a snowmobiler triggered an avalanche right next to a large slide that released last Tuesday ([photo](#)). On slopes with recent avalanche activity there's no need to dig a snowpit because avalanches are the number one sign that slopes are prone to slide.

In general the snowpack is not looking too bad, nor is it looking great. You can still trigger avalanches if you hit just the wrong spot. Evidence includes avalanche activity over the last week in the [Bridger Range, Lionhead and Cooke City](#), instability in our [snowpits](#) and Mark's concise findings from yesterday. These all point to a **MODERATE** avalanche danger.

Minimizing False-Stable Test Results

Already this season all three of us have gotten false-stable tests results, which are a bit scary. Stability tests are not 100% accurate and scores showing stability when things are unstable is dangerous, which happen about 10% of the time. This is why we dig multiple snowpits. Karl Birkeland and I studied this “false-stable” problem and made a presentation at the 2006 International Snow Science workshop which you can read [HERE](#).

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.

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.