GNFAC Avalanche Advisory for Sat Jun 30, 2012

TEST. Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, January 16 at 7:30 a.m. Today's advisory is sponsored by **Cooke City Motorsports** in partnership with the Friends of the Avalanche Center. This advisory does not apply to operating ski areas.

Mountain Weather

Early yesterday morning another inch fell around Big Sky before clouds lifted and high pressure moved in. Temperatures this morning are in the teens up north and single digits in the southern ranges. West to northwest winds have been blowing 35-50 mph in the Bridger Range and up Hyalite Canyon, but are 15-30 mph elsewhere. Today will be mostly sunny with mountain temperatures reaching the low twenties as westerly winds weaken to 15-25 mph. No new snow is expected for the next several days.

Snowpack and Avalanche Discussion

Bridger Range Madison Range

Winds picked up yesterday with plenty of snow to move around. Not all wind-loading was at the ridgelines. Mid and lower mountain winds were reported moving lots of snow too. The winds both give and take. On the *take* side, a skier found deeply scoured slopes in Montagne's Meadow north of Bridger Bowl (**photo**). Scoured slopes are safe, but certainly no fun. On the give side of things, a skier in the northern Madison Range yesterday found multiple slopes with soft slabs of wind-blown snow. He triggered a small slide 20 feet across and 15 inches deep which ran a couple hundred feet downhill on a slope of only 30-33 degrees. Other signs of instability were cracks shooting 30 feet out from his skis and a "whumph" of the snowpack. It will be easy to trigger avalanches on wind drifts throughout our advisory area, especially since winds were pluming snow around Cooke City and in Hyalite too.

Buried under the top 6-16 inches of snow is a weak layer (**photo**). In most areas this layer is small-grained facets which look and feels like tiny grains of sugar. They do not stick together and with enough snow load, they will fracture. I discovered this in stability tests near West Yellowstone on Monday (**video**). A few slopes have feathery surface hoar crystals buried instead. The crystal type doesn't matter, just its potential to fracture under the weight of new or wind-blown snow. The weak snow is not evenly distributed throughout southwest Montana. Some slopes have it, some do not. Lucky for us it's so close to the surface even the laziest among us can find it with a quick hand pit or swipe of a shovel. This is the layer that likely caused the collapsing in the northern Madison Range yesterday as well as allows cracks to propagate.

MODERATE **CONSIDERABLE** **LOW**

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.