

GNFAC Avalanche Forecast for Tue Mar 27, 2012

Good Morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Tuesday, March 27 at 7:30 a.m. Today's advisory is in memory of Ben Richards who passed away in an avalanche five years ago this spring on Yellow Mountain near Big Sky. This advisory does not apply to operating ski areas.

Mountain Weather

My, my, how fast things change. The Bridger Range and mountains around Big Sky received 9-10 inches of snow last night, but not before a bit of rain fell at lower elevations. The southern mountains received five inches and the northern Gallatins got an inch. West winds are blowing 20-30 mph out of the west to southwest but will decrease to 10-20 mph today. Mountain temperatures are currently reading in the upper teens to low 20s, twenty degrees colder than yesterday morning. Today will start cloudy, but turn sunny with mountain temperatures warming into the high 40's in the north and high 30s in the south. No additional snow is predicted for the next 24 hours.

Snowpack and Avalanche Discussion

Backcountry conditions will change hourly today, and so will the avalanche problems and avalanche danger. Any slope that faced the sun and got wet is now capped with a thick ice crust. The new snow will be bonded to this crust, but near the ridgetops isolated wind slabs could be triggered this morning. As the day warms, the new snow will easily sluff as wet, loose avalanches. If it gets warm enough to melt the underlying crust, the wet snow avalanche danger will rapidly increase too.

Facets at the ground were formed before Thanksgiving, about 130 days ago. They have been responsible for many avalanche cycles and even after all this time, they are still the weak layer we are most concerned with ([video](#)). Both wet and dry slab avalanches have been breaking on this layer with many slides propagating far and wide.

The Bridger and northern Madison Ranges:

A dense nine inches of snow (weighing in at 1.8" [SWE](#)) in the Bridger Range will vastly improve the skiing and riding conditions. Last night was the first solid freeze since Saturday. Once the sun comes out the new snow will quickly melt and sluff. The snow underneath the sun crust is only a few degrees below freezing, relatively warm, likely moist, and will quickly become unstable once the crust melts. There were a few wet slab avalanches in the Bridger Range yesterday: one immediately to the north of the Bridger Bowl boundary ([photo1](#), [photo2](#)) and a few more north of Ross Pass ([photo](#)).

Around Big Sky, higher elevation slopes do not have wet snow penetrating more than a foot into the snowpack and shady, northerly aspects are lacking a crust. Regardless, weak, faceted depth hoar is still breaking and is our primary weak layer. A large avalanche on the north face of Cedar Mountain two days ago broke on this layer ([photo](#)).

Some rain, ten inches of new snow, strong winds, a buried weak layer, recent avalanches and a moist snowpack create a complicated story. Wet, dry, wind-loaded or not, the avalanche danger is rated a straight [CONSIDERABLE](#) today. Be careful. These are times when we can get surprised. The snowpack is like a crazy person with a loaded gun; unpredictable and dangerous.

The Gallatin Range, southern Madison Range, the Lionhead area near West Yellowstone and the mountains around Cooke City:

The mountains around Cooke City and West Yellowstone have been warm too with wet snow forming on many slopes. Today's temperatures are expected to only warm into the upper 30s, but with less snow insulating the crust, (5 inches instead of 10) it will melt quickly if the clouds part. The northern Gallatins only got an inch of snow, but have the same wet avalanche concern.

For today, the avalanche danger will start out as [MODERATE](#) on all slopes, but quickly become [CONSIDERABLE](#) on slopes that are warm and melting.

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.

Photos

[Five new photos](#) were posted to our website last night on top of the ten that were added since Saturday. The photos tell a great story of both wet and dry avalanches in our forecast area.

Avalanches: Decision-making and Psychology

On March 28 the GNFAC and Friends hosted a Professional Development Workshop on "Decision-making and Psychology". All six lectures are uploaded to YouTube. Making high consequence decisions in dynamic, dangerous environments is tricky stuff. These lectures are by an avalanche worker, forecaster, SEAL, airline pilot, and psychologist. Watch, listen and learn. You can view the lectures here:

http://www.youtube.com/playlist?list=PLEFAE2148A0027DF6&feature=view_all