

## **GNFAC Avalanche Advisory for Wed Apr 6, 2011**

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, April 6, at 7:30 a.m. Yellowstone Club Community Foundation, in cooperation with the Friends of the Avalanche Center, sponsors today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

High precipitation intensity yesterday morning dropped another 10 inches of snow around Cooke City, 3 inches near West Yellowstone and 6-7 inches from Big Sky to the Bridger Range. Winds averaged 30 mph with gusts exceeding 50 mph as the snow fell, but have since calmed to 10-20 mph. At 6 a.m. mountain temperatures are near 10F under clear skies, but cloud cover will increase this afternoon and snow will fall tonight lasting into tomorrow. Wind speeds will increase out of the west to southwest at 20-30 mph. By tomorrow morning 3-6 inches will cover the mountains.

### Snowpack and Avalanche Discussion

#### The Bridger, Gallatin and Madison Ranges, the Lionhead area near West Yellowstone:

Since Saturday the mountains have gotten hit with numerous and intense pulses of snowfall totaling 1-1.5 inches of water (SWE); and let's not forget the strong westerly winds. With fluctuating freezing lines and varying temperatures (typical of spring weather) we find snowfall amounts and snow density are a function of elevation. That is why we're more interested in how much water weight fell, measured as SWE, instead of inches of snow. Rapid loading during the storms has been followed by periods of calm allowing the snowpack to adjust. Avalanche activity has been confined to the new snow on wind-loaded terrain. Ski patrols are ski cutting isolated wind pockets and they're finding ever growing overhanging cornices defying gravity—at least for the moment. Public observations have been slim, another seasonal fluctuation as backcountry travel wanes. Our field trips the past seven days have revealed a strong snowpack. Tests in the Bridger Range, Mount Ellis, Beehive Basin, Bacon Rind and Lionhead ([snowpits](#)) all have a common instability—new, wind-blown snow. Last Thursday we investigated a large avalanche in the northern Bridger Range that was triggered by a cornice breaking after a big snowstorm ([photo](#), [video](#)). This avalanche was an exception, but it shows that even the strongest snows have a breaking point. With more weight added the last few days, a large avalanche on an isolated slope is not out of the question, especially with bus-sized cornices ready to trigger. For today, enjoy the sunshine and fresh snow, but all wind-loaded terrain will need to be evaluated carefully since the avalanche danger is rated [MODERATE](#). On all other slopes the danger is [LOW](#).

#### The mountains around Cooke City and the Washburn Range:

If you love snow, your heart will be stolen by Cooke City. Twenty inches in the last two days seems par for this season. It's snowed 30 out of the last 36 days and the Fisher Creek SNOTEL reads 136" on the ground. With the recent snows and strong winds we've got avalanches. Yesterday someone called in to report a large slide on the southeast face of Scotch Bonnet. It looked to be almost three feet deep and a few hundred feet wide, most certainly wind-loaded. Even without prominent weak layers, twenty inches of new snow will avalanche, especially when it's blown into thick drifts of snow. A skier reported yesterday's new snow density was slightly inverted which creates short-lived, but very real instabilities. For today, the avalanche danger is rated [CONSIDERABLE](#) on all wind-loaded terrain and [MODERATE](#) on all other slopes.

## **WET SNOW AVALANCHES**

Sunny weather with temperatures well above freezing will create wet snow avalanches on sunny aspects today. Pinwheels of snow rolling downhill and/or sinking past your boot tops in wet snow are signs the snow is getting ripe to avalanche. Expect to see many wetpoint release slides in this new snow.

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](mailto:mtavalanche@gmail.com) or call us at 587-6984.

Last Advisory

The last avalanche advisory of the winter is this Sunday, April 10<sup>th</sup>.