GNFAC Avalanche Forecast for Wed Mar 15, 2017

Good Morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Wednesday, March 15th at 6:45 a.m. Today's advisory is sponsored by **Javaman** and **Bountiful Table**. This advisory does not apply to operating ski areas.

Mountain Weather

At 5 a.m. under mostly cloudy skies, mountain temperatures are in the mid to upper 30s and winds are blowing out of the W-SW at 15-25 mph with gusts of 35 mph. In the last 24 hours the mountains around West Yellowstone and Cooke City received 1-2" of snow. Today will be partly cloudy, winds will remain the same and temperatures will rise into the 40s and likely not freeze again tonight. Upper elevations will see a trace to an inch of new snow by morning and tomorrow looks to be a combination of rain and snow.

Snowpack and Avalanche Discussion

Bridger Range Madison Range Gallatin Range

Lionhead area near West Yellowstone Cooke City

The mountains are in a transition with a battle being waged between winter and spring. Yesterday, Eric and I rode our sleds into Buck Ridge and discovered winter still flexing her muscles at the higher elevations (**video**). She won that round, but that was yesterday. Today will be different because sunshine and above freezing temperatures will begin to erode strength in the snowpack by melting in the upper few inches. At elevations below 8,000 feet we found moist and **isothermal** snow, which means it is already weak.

There are mainly two ways that avalanches get triggered: by adding stress to the snowpack or removing strength. New snow, wind-loading and falling cornices add stress. Rain, or above freezing temperatures (especially with sun), melt the bonds between the grains and weaken the snowpack. Right now we have both going on.

Eric and I saw wind moving snow above 9,000 feet. Our snowpit had mostly stable conditions, although not far away on Fan Mountain a falling cornice triggered an avalanche on Saturday indicating isolated instability (**photo**). The avalanche confirmed the findings of MSU researchers near Cedar Mountain who had facets breaking 1.5' off the ground in their tests, which surprised them. This instability is not widespread, but certainly worth looking for.

The push and pull of adding stress versus removing strength is a complex dynamic, but easy to figure out. Pinwheeling snow on sunny slopes and sinking past your boot tops in moist snow means wet avalanche danger is rising (**photo**). On shady, high elevation aspects, new snow and wind-loading increase the dry-snow avalanche danger. And on the ridgelines cornices continue to grow and strain, primed to break off and trigger slopes below with the rising temperatures (**photo**).

For today, the **dry-snow** avalanche danger is rated MODERATE on wind-loaded slopes and LOW on all others. On sunny slopes, the **wet-snow** avalanche danger could rise to CONSIDERABLE by early afternoon. Avoid wet avalanches by seeking shady and cooler aspects.

*Check out our **Photo page** for many recent pictures of cornice triggered avalanches and slides in wind-loaded terrain.*

Eric will issue the next advisory tomorrow morning by 7:30 a.m.

We rely on your field observations. Send us an email with simple weather and snowpack information along the lines of what you might share with your friends: How much new snow? Was the skiing/riding any good? Did you see any avalanches or signs of instability? Was snow blowing at the ridgelines? If you have snowpit or test data we'll take that too, but this core info is super helpful! Email us at mtavalanche@gmail.com or leave a message at 406-587-6984.