GNFAC Avalanche Advisory for Fri Mar 11, 2016

Good morning. This is Alex Marienthal with the Gallatin National Forest Avalanche Advisory issued on Friday, March 11, at 7:30 AM. Today's advisory is sponsored by **Yellowstone Arctic Yamaha and Yamaha Motor Corp** in partnership with the **Friends of the Avalanche Center**. This advisory does not apply to operating ski areas.

Mountain Weather

At 6 a.m. the mountains south of Big Sky received 7" of snow, 3-4" fell around Big Sky, Cooke City, and the Lionhead area near West Yellowstone, 1-2" fell in the mountains south of Bozeman, and the Bridger Range remained dry. Winds overnight were out of the southwest at 20-30 mph, and gusts exceeded 50-60 mph over the last 24 hours. Winds subsided this morning and will be southerly at 10-15 mph today, and then increase tonight to 20-30 mph. Temperatures this morning are in the high 20s F and will reach the mid-40s F this afternoon. The mountains will get light showers this morning then remain dry through Saturday.

Snowpack and Avalanche Discussion

WET SNOW AVALANCHE DANGER

Slopes that get sun today will warm quickly. Rolling pinwheels of snow, point releases, and wet snow deeper than a boot top are obvious signs the snow surface is becoming unstable. Avoid steep slopes with these conditions. Today, the wet avalanche danger will start **LOW** and may rise to **MODERATE** this afternoon.

Madison Range Southern Gallatin Range

Lionhead area near West Yellowstone Cooke City

The mountains near Big Sky, West Yellowstone, and Cooke City received new snow that totaled .3-.8" of snow water equivalency (SWE). The highest amounts were recorded south of Big Sky. Temperatures yesterday reached the mid-40s F and melted the snow surface on many slopes, which refroze overnight. Avalanches in new snow will be easy to trigger on slopes where the snow fell on a hard, refrozen surface. In addition, it is possible to trigger wind slabs that formed during yesterday's strong southerly winds.

Buried weak layers make larger avalanches a possibility. The mountains near Cooke City, West Yellowstone, and Big Sky have weak layers of facets or surface hoar that are buried 2-3 feet deep. Avalanches near Cooke City last weekend likely failed on the shallower of these layers (**photo**, **photo**, **photo**), and I found deeper layers that are still showing signs of instability (**video**). A skier near Big Sky yesterday reported buried surface hoar below fresh wind slabs, and buried crusts that are accompanied by facets on some slopes. The spotty distribution of these weak layers can make stability assessment difficult. It is a good idea to dig a pit before committing to a steep slope if obvious signs of instability are not present.

Today, new snow, buried weak layers, and lingering wind slabs make avalanches possible and the danger is rated **MODERATE** on all slopes.

Bridger Range Northern Gallatin Range

The mountains near Bozeman received minimal to no snow last night, and lack unstable buried weak layers on most slopes. Eric and I visited the northern Bridger Range yesterday and observed a variety of snow conditions (**video**). An observer in Frazier basin reported wind transporting snow, wet loose avalanches, and wind slabs (**photo**). Wind and warm temperatures have promoted quick changes in stability that call for heads up travel throughout the day. Today, it will be possible to trigger wind slabs that formed during yesterday's strong winds, and wet loose avalanche danger may rise with warm temperatures and sunshine. For today, the avalanche danger is rated **MODERATE** on wind loaded slopes and **LOW** on other slopes. Low danger does not mean avalanches are impossible. It is a good idea to look for unexpected instabilities before committing to a slope.

Eric will issue the next advisory tomorrow morning by 7:30 a.m. If you have any snowpack or avalanche observations to share, drop us a line at mtavalanche@gmail.com or leave a message at 587-6984.

EVENTS and AVALANCHE EDUCATION

*A complete calendar of classes can be found **HERE**.*