

GNFAC Avalanche Advisory for Thu Feb 4, 2016

Good morning. This is Alex Marienthal with the Gallatin National Forest Avalanche Advisory issued on Thursday, February 4, at 7:00 AM. Today's advisory is sponsored by [**Mountain Valley Motorsports of Cody**](#) and [**Soda Butte Lodge**](#). This advisory does not apply to operating ski areas.

Mountain Weather

Over the past 24 hours the mountains near West Yellowstone and Cooke City picked up a trace to 1" of new snow while the rest of the area remained dry. Wind has been out of the west to southwest with average speeds over 20 mph and gusts in the 30s, near Bozeman and Big Sky. Wind in the southern mountains has been 10-15 mph with gusts in the 20s. Temperatures this morning are in the single digits to low teens F. Today will be mostly cloudy with snow showers this afternoon and evening. Temperatures will reach the low 20s F, wind will be out of the west at 20-30 mph, and 2-4" of snow will fall by morning.

Snowpack and Avalanche Discussion

Bridger Range

The Bridger Range received 18" of low density snow by yesterday morning. This snow contained only .2-.3" of snow water equivalence ([**SWE**](#)), so was not a lot of stress on the snowpack by itself. However, wind has been blowing around 30 mph out of the west for the past 24 hours and has continued to transport snow. Wind slabs could be larger and denser today. Slopes without wind loading will still have enough snow for loose snow avalanches and storm slabs to be a concern.

It has become more difficult to trigger avalanches on the buried persistent weak layers, but it is still possible. Slopes where it may be more likely to trigger an avalanche include wind loaded slopes that have variable slab depth and slopes with an overall shallower snowpack, such as those that slid already this year. The Football Field in the backcountry near Bridger Bowl is an example of this and there is a chance it could slide a third time.

Wind slabs will remain likely to trigger today. Slabs of new snow, loose snow slides, and avalanches on buried weak layers will also be possible. The avalanche danger today is [**CONSIDERABLE**](#) on all wind-loaded slopes and [**MODERATE**](#) on all other slopes.

Madison Range Gallatin Range

Lionhead area near West Yellowstone Cooke City

Buried persistent weak layers throughout our advisory area have shown improved stability, but are still a concern. Depth hoar at the ground exists on all slopes and facets about two feet under the surface exist on some slopes. It isn't difficult to find strong and stable snow, but it is still possible to find weak and unstable snow. This variability makes stability assessment difficult. The videos that Eric and Doug made on Tuesday in the Bridger Range explain this variability for our entire advisory area ([**Doug's video**](#), [**Eric's video**](#)).

Yesterday I toured in Hyalite in the Northern Gallatin Range where I saw a couple small wind slabs as well as depth hoar that showed unstable results in stability tests ([**video**](#)). Recent wind loading and unstable results required cautious route finding, and the potential to trigger a large avalanche on the depth hoar reinforced conservative decision making. We avoided the temptation of steep slopes. On Monday, a snowmobiler triggered

a slide in Lionhead as he traversed a steep wind-loaded slope ([photo](#)) and a skier triggered a small slide near Cooke City ([photo](#)).

Today, buried weak layers and recent wind loading make it possible to trigger an avalanche and the avalanche danger is [MODERATE](#).

Darren Johnson Avalanche Education Memorial Fund

The National Avalanche Foundation set up an education fund in memory of Darren Johnson, the Yellowstone Club ski patroller who died in an avalanche on January 19. You can check out the details and make donations here: <http://www.mtavalanche.com/sites/default/files/NAF%20Darren%20Johnson%20Memorial%20Fund.pdf>.

I 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](#).

West Yellowstone, Saturday, February 6: *1hr Avalanche Awareness*, West Yellowstone Holiday Inn, 7-8 p.m.

Bozeman, Tuesday, February 9: *1hr Avalanche Awareness for Snowmobilers*, Summit Motorsports, 6-7 p.m.

Wednesday, February 10: *1hr Avalanche Awareness for Women*, REI, 6-7 p.m.

SATURDAY at BRIDGER BOWL: February 6, *King and Queen of the Ridge*. A day of hiking and skiing the Ridge as a fundraiser for the Friends of the Avalanche Center. Teams and individuals are welcome! More info here: <http://bridgerbowl.com/event/king-and-queen-of-the-ridge>.