

GNFAC Avalanche Advisory for Thu Mar 31, 2016

Good morning. This is Alex Marienthal with the Gallatin National Forest Avalanche Advisory issued on Thursday, March 31, at 7:15 AM. Today's advisory is sponsored by [Mountain Valley Motorsports of Cody](#) and [Edward Jones](#). This advisory does not apply to operating ski areas.

Mountain Weather

Since yesterday, the mountains near Big Sky and Cooke City received 2-3" of new snow, Hyalite got 5" and the Bridger Range and mountains near West Yellowstone remained dry. Winds overnight were out of the north-northwest at 15-25 mph with gusts in the 30s and up to 45 mph in the Bridger Range and Cooke City. Winds today will be northerly at 15-25 mph. Temperatures this morning are in the teens to low 20s F and will be in the 20s to low-30s F today. Another 1-3" of snow is expected by the end of today before warm, dry conditions arrive.

Snowpack and Avalanche Discussion

[Bridger Range](#) [Madison Range](#) [Gallatin Range](#)

[Lionhead area near West Yellowstone](#) [Cooke City](#)

March madness snowfall totals have exceeded 5" of snow water equivalent ([SWE](#)) with 2-3" of SWE in the past week. This snowfall combined with strong winds to form slabs and add weight to the snowpack. Natural avalanches were observed in Hyalite on Sunday ([photo](#), [photo](#)) and in the northern Bridger Range on Monday ([photo](#)). Some smaller, deep avalanches were triggered near Gardiner ([photo](#)) and Cooke City ([photo](#)) over the weekend.

East-northeast winds the last two days created wind slabs in unfamiliar locations, and strong northwesterly winds last night formed wind-slabs in some of the more usual locations. My partner and I were in Hyalite yesterday to take down the weather station, and we experienced multiple collapses of hard wind slabs as we ascended a ridgeline ([video](#)). This instability did not seem widespread, but highlighted one place where unstable snow exists -- wind-loaded slopes near ridgelines. Wind-slabs will be 2-3' thick, or more in areas that received more snow.

On some slopes, recent snow and wind slabs bonded well to the old snow. On other slopes these slabs lie over facets, lower density new snow, or deeper weak layers to create instability. Doug found a layer of graupel and facets that likely contributed to the slide in the Bridger Range ([video](#)), and I saw wind-slabs over facets and preserved new snow in Hyalite. These instabilities are not widespread, which can make them difficult to assess. In the southern mountains, a weak layer of facets buried 2-3 feet deep has been found mostly on easterly and southerly aspects. In the absence of avalanches or collapsing, instability can only be identified if you dig a snowpit to know what is below your feet.

If stability is the question, terrain is the answer. Avoid slopes below ridgelines, find slopes that are sheltered from the wind and hold unconsolidated powder, or travel on low angle slopes. For today, the avalanche danger is rated [MODERATE](#).

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](#).