

GNFAC Avalanche Advisory for Mon Dec 9, 2013

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued Monday, December 9 at 7:30 a.m. **Montana Import Group** sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Over the past 24 hours a trace of new snow fell over most mountain locations. At 4 a.m. temperatures remain frigid. The mercury is reading -20 F in the mountains around Cooke City and West Yellowstone and -10 to -15 F elsewhere. To make matters worse, westerly winds are blowing 15-25 mph with gusts in the 30s. Although temperatures will actually warm above zero today, strong winds will continue to make it dangerously cold. Skies will be partly to mostly cloudy and there is a slight chance of mountain snow showers later this afternoon. The good is – temperatures will gradually warm throughout the week. Tomorrow looks to be a much warmer day with a good possibility of snow. The mountains could pick up 4-6 inches by Wednesday morning.

Snowpack and Avalanche Discussion

Bridger Range Gallatin Range Madison Range Lionhead area near West Yellowstone Cooke City

I'm over the cold! Not just because I hate numb feet, but because it doesn't snow when it's this cold. It has now been nearly six days since the last measurable snowfall. During that time the snowpack has been doing its best to defend itself against some of the coldest temps we've seen in years.

In many areas the pack seems to be holding up. In the mountains around Cooke City, stability seems to be improving. It has now been a few days since the last reported avalanche and skiers/riders are getting better (more stable) results in their stability tests. This is encouraging, however; I still don't trust a layer of facets about a foot above the ground, especially on north and east facing slopes or slopes that have been recently wind loaded. Although conditions are improving, it remains possible for skiers or riders to trigger large and destructive avalanches in the mountains around Cooke City.

The mountains around Big Sky and West Yellowstone have plenty of weak snow. Yesterday, Doug and I rode into Carrot Basin in the southern Madison Range and found a poor snowpack structure ([photo](#)). A layer of facets about a foot off the ground was the primary layer of concern. It was taking a lot of force to get this layer to fail (ECTP 28), but there's a good chance it will be more reactive once we get more snow ([video](#)).

A more immediate concern is fresh wind slabs. Overnight westerly winds have been howling, likely forming stiff slabs on leeward slopes. Some areas of wind-blown snow will be stubborn and hard to move while other areas will be highly reactive. The best way to avoid trouble today will be to avoid wind loaded slopes.

The Bridger Range has a stronger snowpack. Over the weekend I talked with multiple people who said they felt confident skiing steep terrain. Today, the primary avalanche concern will be wind loaded slopes. Wind deposited snow below the ridgeline as well cross loaded features mid-slope will be sensitive to the weight of a skier or rider. I don't expect recently formed wind slabs to be exceptionally large, but they certainly pose a threat especially in high consequence terrain.

Today, buried weak layers and wind slabs make human triggered avalanches possible and the avalanche danger is rated [MODERATE](#).

Doug 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 or call us at 587-6984.

EVENTS/EDUCATION

BOZEMAN: December 11, 7 p.m., International Mountain Day, Emerson Cultural Center, Avalanche Forecasting and Awareness. <http://www.mtavalanche.com/images/13/international-mountain-day>

FOUR CORNERS: December 11, 7 p.m., 1-hour Avalanche Awareness for Snowmobilers at the GVSA Groomer Shed, <http://gvsa.net/>

WEST YELLOWSTONE: Snowmobiler Intro to Avalanches w/ Field Course, West Yellowstone: 19 and 20 December. Info and registration: <https://www.ticketriver.com/event/7116>