

## **GNFAC Avalanche Advisory for Sun Mar 9, 2014**

Good Morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, March 9 at 7:30 a.m. **Upper Yellowstone Snowmobile Club** and **Northern Lights Trading Company** sponsor today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

At 4 a.m. temperatures are in the high 20s to mid-30s F and winds are blowing 15-25 mph out of the WSW with ridge top gusts reaching close to 50 mph. Today, temperatures will remain above average with highs in the upper 30s to low 40s F. Winds will continue to blow 20-30 mph out of the WSW with ridge top gusts reaching close to 50 mph. Skies will remain mostly cloudy as a strong westerly flow pushes moisture into the area. Precipitation is unlikely today, but a developing low pressure system will increase the chance of precipitation tonight and tomorrow. A few inches of snow are possible by tomorrow morning with up to a foot possible by Tuesday morning.

### Snowpack and Avalanche Discussion

#### Cooke City

Yesterday, riders outside of Cooke City observed numerous avalanches that occurred over the past few days. Most were relatively small in size - but a few were notable. The largest slide occurred on the north side of Scotch Bonnet Mountain, north of town. The slide broke hundreds of feet wide and up to ten feet deep ([photo](#)). Recent tracks on the slope indicate it may have been triggered by snowmobilers. Fortunately, there have been no reports of anyone being caught.

Deep slab avalanches are difficult to forecast. These types of slides are usually monsters with big consequences. Avoid areas where slabs are thinner, specifically around rock bands and scoured ridgelines to mitigate the potential of triggering a deep slab avalanche ([video](#)).

A more likely scenario for backcountry travelers today will be triggering smaller pockets of windblown snow near the ridgelines. This problem is most prevalent on slopes leeward to west-southwest winds ([photo](#)). Steering clear of wind loaded slopes is the best way to avoid triggering a slide.

Today, human triggered avalanches are likely on slopes steeper than 35 degrees which have a **CONSIDERABLE** avalanche danger. Less steep slopes have a **MODERATE** avalanche danger.

#### Gallatin Range Madison Range

#### Lionhead area near West Yellowstone

The snowpack in the mountains around Big Sky and West Yellowstone is gradually getting stronger. Facets buried 2-3 feet deep remain a concern, but this layer is becoming less reactive over time. It was quiet yesterday with no reports of avalanches triggered by the resort or in the backcountry.

This does not mean that avalanches are out of the question. Recent activity over the past week is a clear indication that slides are still possible. On Friday, Mark and I rode into the Buck Ridge area in the Northern Madison Range and found slopes with both stable and unstable snow ([video](#)). Dig in the area you plan to ride

and do a stability test to assess the strength and distribution of buried weak layers.

Another concern is isolated wind slabs near the ridge tops. Yesterday above freezing temperatures and strong solar input limited snow available for transport, but increasing winds out of the west-southwest moved some snow at upper elevations. Be aware of this problem if you're traveling in alpine terrain.

Today, buried weak layers and isolated wind slabs make human triggered avalanches possible and the avalanche danger is rated **MODERATE**.

### Bridger Range

The snowpack in the Bridger Range is generally strong. The rapid loading event on Thursday produced new snow avalanches during the storm, but avalanche activity ceased once the snow stopped. Yesterday, Doug investigated a natural avalanche that occurred in the Northern Bridgers on Friday ([video](#)). The snowpack has now had several days to relax and accommodate this last loading event, lowering the likelihood of triggering a slide deeper in the snowpack. There is still the possibility a skier or rider could trigger wind slabs in upper elevation terrain. Watch out for and avoid these steep wind loaded slopes.

Today, human triggered avalanches are possible on slopes steeper than 35 degrees which have a **MODERATE** avalanche danger. Slopes less than 35 degrees have a **LOW** avalanche danger.

### **CORNICES**

It's worth noting that cornices are growing large in size and have been the triggers for large avalanches over the past week. As more snow and wind put additional stress on these monsters, they will continue to break loose especially as they creep during warm weather. Avoid slopes directly under cornices, and give them a wide berth along ridgelines because they can break farther back than one might expect ([photo](#)).

I 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](mailto:mtavalanche@gmail.com) or call us at 587-6984.

### **BACKCOUNTRY SKIERS AND RIDERS NEEDED FOR MSU SURVEY**

This project aims to collect GPS location information and survey responses from backcountry skiers and riders to better understand what types of terrain decision we make. The focus is on backcountry skiers and riders of all abilities and experience. You need not be an expert backcountry skier to participate in this research. For more information and to sign up: [www.montana.edu/snowscience/tracks](http://www.montana.edu/snowscience/tracks)