

## **GNFAC Avalanche Forecast for Sat Mar 14, 2009**

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Saturday, March 14th, at 7:30 a.m. Bridger Bowl in cooperation with the Friends of the Avalanche Center sponsor today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Today's weather will be an encore performance of yesterday with mostly sunny skies and warm temperatures. This morning mountain temperatures were in the low 20's with valley temperatures in the low teens and southwest winds blowing 5-15 mph. Winds will increase to 20-30 mph with gusts in the 40s from the southwest, and temperatures will climb into the mid 30s. A few clouds will enter the area late this afternoon and may produce a trace of snow by tomorrow morning. A good chance for snow comes Sunday night and Monday.

### Snowpack and Avalanche Discussion

The Bridger, Gallatin and Madison Ranges, and the Lionhead area near West Yellowstone:

The last significant snowfall occurred last weekend and was accompanied by many natural avalanches. Doug found two large slides in the Lionhead area on Wednesday and Gallatin Snow Rangers found more slides in the Southern Madison Range near Teepee Basin. Many skiers saw several large avalanches in the Bridger Range as well. These slides indicate the ability of a weak layer buried about 2-3 ft deep to propagate fractures over long distances and produce avalanches. This layer exists on most aspects and can be found near an ice crust on southerly aspects. Stability tests have also indicated the potential for this layer to propagate fractures. Karl and his partners skied near the Bacon Rind drainage in the southern Madison Range on Thursday. They found similar conditions on southeast and northeast facing slopes and shot a brief video clip of a stability test: <http://www.youtube.com/watch?v=rwXW7NIzlBo>

They also found an isolated pocket of surface hoar buried about 3 ft deep on a wind and sun sheltered slope. Given these potentially unstable conditions they carefully selected terrain and enjoyed great skiing. Triggering an avalanche has become more difficult and less likely but remains a definite possibility. On Wednesday skiers on Saddle Peak triggered a wind slab about 1 ft deep that ran 200-300 yards downslope, and skiers north of Bridger Bowl retreated from their intended descent because wind slabs 3 ft thick "just didn't feel right." With a weak layer able to propagate fractures, human triggered avalanches are possible today and the avalanche danger is **MODERATE**.

The mountains around Cooke City and the Washburn Range:

Yesterday my partner and I rode in the mountains north of Cooke City. The snowpack in this area survived the onslaught of snow during the first week of March without widespread avalanches. We found several small avalanches confined to wind slabs near ridgetops. These slides did not propagate or run far. We found a similar weak layer that exists in the rest of the advisory area buried about three ft deep, but this layer is a bit stronger near Cooke City than the rest of the area. One slide occurred on this layer last weekend on a heavily wind loaded, northeast facing slope. In our stability tests on a south facing slope on Mt Abundance this layer propagated fractures displaying an ability to produce a slide. Today human triggered avalanches are not likely but remain possible and the avalanche danger is **MODERATE**.

**WET SNOW AVALANCHES AND FUTURE WEAK LAYERS**

Spring is here and the sun is beginning to affect our southerly facing slopes. Yesterday point releases occurred mostly on steep terrain near rock outcrops. Strong winds today could help keep south facing snow cool, but a few more and slightly larger wet snow slides should occur. The skiing and riding will not be very good on southerly aspects and I would avoid them.

A very cool process called radiation-recrystallization is occurring on slopes that experience some sun. A unique radiation balance creates faceted crystals near the snow surface, and you can find evidence of this if you see an ice crust with a thin layer of loose snow on top. A photo of these weak, angular, faceted crystals from the Yellowstone Club Ski Patrol can be seen at: <http://www.mtavalanche.com/photos/photos.php>

#### UPCOMING EVENTS

Today is the 28th Annual Pinhead Classic Telemark Festival at Bridger Bowl. Over 100 prizes such as skis and season passes will be awarded for everything but the fastest time and all proceeds benefit the Friends of the Avalanche Center. A registration fee of \$30 gets you a ½ -day rate lift ticket, t-shirt, commemorative pint glass, multiple laps on the dual slalom course, numerous prizes and awards, and dinner, dancing, unlimited beverages, and live music at the Emerson this evening. If you can't make it to Bridger join us at the Emerson for only \$15. Visit [www.pinheadclassic.com](http://www.pinheadclassic.com) for more information.

I will issue the next advisory tomorrow morning at 7:30 a.m. If you get out in the backcountry give us a call or send us an email with your observations. You can reach us at 587-6984 or at [mtavalanche@gmail.com](mailto:mtavalanche@gmail.com).