

GNFAC Avalanche Forecast for Sun Apr 5, 2009

Good morning. This is Doug Chabot with the Gallatin National Forest Avalanche Advisory issued on Sunday, April 5th, at 7:30 a.m. On Site Management in cooperation with the Friends of the Avalanche Center sponsor today's advisory. This advisory does not apply to operating ski areas. Our next advisory will be Wednesday morning with the season finale on Friday.

Mountain Weather

Yesterday morning scattered showers dropped 1-2 inches in the Bridger and southern Madison Ranges. The unsettled weather that gave us seven days of snow gracefully exited yesterday afternoon. Winds were westerly at 10-20 mph, but are calm under clear skies this morning. Mountain temperatures are in the single digits. The next three days will be calm and sunny with mountain temperatures reaching the low 40s today and possibly 50s tomorrow. With a snap of the fingers winter ends and spring arrives--just the way we like it.

Snowpack and Avalanche Discussion

The Bridger, Gallatin and Madison Ranges, the Lionhead area near West Yellowstone, the mountains around Cooke City and the Washburn Range:

Over the next three days the sun will be Public Enemy #1 as far as the snowpack is concerned. More specifically, above freezing temperatures and calm air coupled with direct solar radiation will quickly spike the avalanche danger as the snow surface gets wet.

The first time new snow gets hit with sun and above freezing temperatures is it's most vulnerable time to avalanche—and we've got three feet of powder waiting to be baked. Wet point release slides is the starter pistol to a wet avalanche cycle. In areas where we have weak, buried layers these point releases can act as triggers. With time, as water percolates downward, the snowpack will lose strength and become unsupportable. Wet avalanches will naturally occur as the upper slab loses its frozen bonds and creeps downhill at an accelerated pace. This creep puts enormous stress on deeper layers. Two feet above the ground are weak facets susceptible to avalanching. These were formed back in January and February, yet still are breaking clean in stability tests. Check out Mark's video of this layer fracturing during his visit to the northern Bridgers on Friday:
<http://www.youtube.com/watch?v=oMylyNhmGCU>

East, south and west aspects will get a healthy dose of sun today. North aspects will not. In areas where the snow stays dry, we're still concerned with buried weak layers. Mark's snowpit and sketchy results was on a north aspect caused him to retreat from his original ski plan. Other folks in the Bridgers had cornices break and propagate cracks 1 ½ to 2 feet deep. Winds abated last night, but not before loading many slopes. Yesterday, Big Sky Ski Patrol reported that skiers triggered two sizeable slides out of bounds and the Moonlight Basin Ski Patrol saw a large avalanche on Fan Mountain. A banner week of powder followed by stiff winds, sometimes blowing from odd directions (northeast), created wind slabs all over the compass which you'll easily trigger.

WET SNOW AVALANCHE DANGER

The avalanche danger will rise today on all slopes getting direct sunlight. This is especially true of steep and more southerly aspects where the full brunt of the sun's rays will be felt. These slopes will see the wet avalanche danger rise to HIGH. I expect many natural avalanches on these slopes, so stay clear. Pinwheels of snow and small point release slides are a sign the snowpack is dangerously warming up.

DRY SNOW AVALANCHE DANGER

On shady aspects or higher, cooler elevations, the main avalanche concern is wind-loaded slopes. These areas will have a CONSIDERABLE danger while all others have a MODERATE danger.

I will issue the next advisory Wednesday 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.