

GNFAC Avalanche Advisory for Sat Mar 19, 2011

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Saturday, March 19, at 7:30 a.m. On Site Management, in cooperation with the Friends of the Avalanche Center, sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Skies were cloudy yesterday but no snow fell. Today's weather should be similar though some snowfall may start this afternoon. Winds in most areas were SSW 10-20 mph, except on Lone Mountain and ridgetops in Hyalite where they were 20-40 mph. Temperatures were in the mid teens F to low 20s F. Today temperatures shouldn't rise much and most areas will see highs in the mid 20s F with winds blowing 15-30 mph from the SSW. By tomorrow morning only 1-2 inches of snow should accumulate in the southern areas while the northern areas will receive a trace-1 inch.

Snowpack and Avalanche Discussion

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

Thursday's avalanche just south of Sacajawea in the northern Bridger Range was impressive, 3-5 ft deep, 400 ft wide, and 1300 ft vertical. It was triggered by a much smaller avalanche that initiated at near the ridgetop. Check out Eric's [video](#) and [photo1](#), [photo2](#), [photo3](#).

Similar avalanche activity was limited following this week's storm, but it demonstrates the impact of a large load of snow. The problem today is that the "storm" hasn't ended for many slopes. Steady winds continue transporting snow and adding further load to leeward slopes. Most slopes will not break near the ground but avalanches within the new snow are likely on steep slopes receiving wind blown snow.

1. Skiers in the backcountry on Lone Mountain near Big Sky reported shooting cracks in a wind slab resting on lower density snow. They remotely triggered an avalanche ([photo](#)) 1.5 ft deep and 150 ft wide on a wind loaded slope. Fortunately they reported generally stable conditions on slopes without a wind load.
2. A skier in Hyalite yesterday found stable conditions on many slopes, but also found one slope with a recent avalanche. This slope did NOT have a wind load, BUT it had a buried layer of surface hoar that likely formed around March 7.
3. Along Buck Ridge yesterday, Doug and I found most non wind loaded slopes were stable. However, one slope on a SE aspect contained a thin layer of facets under an ice crust about 20 in deep. This layer propagated fractures in multiple stability tests (both the ECT and PST), a sign of instability.

What to do today? Plenty of good skiing and riding can be found as well as many stable slopes, but there are a few things to keep in mind. First and foremost, avoid wind loaded slopes (always a good idea). Second, there are no widespread, persistent weak layers, but very isolated slopes do have them. Their existence warrants digging a quick snowpit no more than 3-4 ft deep to find them. Third, it will be very difficult to trigger huge avalanches like the one near Sacajawea but it is a good reminder to make conservative decisions and save your most ambitious objectives for another time.

For today, the avalanche danger is rated CONSIDERABLE on wind loaded slopes steeper than 35 degrees. All other slopes have a MODERATE danger.

Eric 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.

Avalanche Video Clip from Utah

<http://youtu.be/1ynAm5Wao1I?hd=1>

This is a great clip of a snowmobiler triggering a slide on March 9th in the Uinta Mountains, UT. He hurt his leg, trashed his machine, but should recover fine. Watching the clip a few things stand out:

1. Small slopes can be dangerous, especially when slides push you into trees.
2. His helmet cam shows how fast even a small slide accelerates.
3. Partners watching from a safe zone are worth their weight in gold.