GNFAC Avalanche Forecast for Thu Mar 10, 2011

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Thursday, March 10, at 7:30 a.m. The Pinhead Classic Telemark Festival, in cooperation with the Friends of the Avalanche Center, sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Since yesterday 2-3 inches of snow fell in the mountains near Cooke City, West Yellowstone, and the Taylor Fork drainage. Winds will dominate today's weather. They increased last night and were blowing 20-40 mph from the SW this morning. Today winds will increase with gusts reaching 50 mph. Temperatures were in the mid 20s F this morning and should climb into the mid 30s F today. A Pacific storm driving these winds will bring more snow starting this evening and ending tomorrow morning. 5-7 inches should fall near Cooke City and West Yellowstone, 3-5 inches near Big Sky, and 2-3 inches near Bozeman.

Snowpack and Avalanche Discussion

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

Watch for wind loaded slopes from strong SW winds today. Although winds have moved most of the available snow, increased winds will find more to move and last night's storm provided more snow for transport. The good news is that local ski patrols have not reported any significant avalanche activity with these fresh wind slabs. Most of their avalanche activity has been small and easily mitigated. With increased winds, it will be easy to trigger a fresh wind slab in steep terrain today. Wind slabs on slopes less than 35 degrees should be a bit more stubborn.

A secondary concern is a layer of small facets. In most places this layer does not exists or is not a concern. It can be found near an ice crust mostly on slopes with some exposure to the sun, and this layer needs a wind load to cause an avalanche. An avalanche from last weekend (crown, snowpack) is a good example. This is a tricky problem found on isolated slopes where tug of war occurs. Solar radiation helps form near-surface facets (read how in this article), but the warmth also helps surface layers of snow bond to each other. Most slopes do not have the unique combination of these variables to be unstable but a few do.

Many small human triggered avalanches are likely on steep slopes with a wind load. Look for soft snow unaffected by the wind and you will generally find stable conditions. Today the avalanche danger is:

CONSIDERABLE on wind loaded slopes > 35 degrees

MODERATE on wind loaded slopes < 35 degrees

LOW on slopes without a wind load

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 or call us at 587-6984.

"How To" Video Tutorials

We created three videos on the Stability Tests page describing how to perform a Compression Test, an Extended Column Test, and how to choose a snowpit location.