GNFAC Avalanche Forecast for Sun Mar 13, 2011

Good morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, March 13, at 7:30 a.m. Hans Saari Memorial Fund, in cooperation with the Friends of the Avalanche Center, sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Over the past 12 hours a trace of new snow has fallen in most areas. Currently, winds are blowing out of the WSW at 5-20 mph and mountain temperatures are in the high teens to low 20's F. Today, plenty of sunshine will warm temperatures into the 30's F and winds will continue to blow out of the WSW at 10-20 mph. Clouds and wind will gradually increase by this evening as a storm pushes into the Pacific Northwest. A better chance of moisture will arrive tomorrow afternoon.

Snowpack and Avalanche Discussion

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

Yesterday, my partner and I went for a tour up Bacon Rind in Yellowstone Park. Sunny skies and fresh snow were plentiful and before dropping in we put the shovels to the snow digging pits. As we dug down we did not expect to find anything unusual, i.e., unstable snow. However, a clean break nearly two feet down on my first compression test got me thinking. Only after our Extended Column Test (ECT) propagated cleanly across did I believe we may actually have a problematic layer (video). We did another ECT in the same pit and got the same results. We then changed aspect and dug another pit. Again, the ECT propagated on the same layer (photo).

A thin layer of facets two feet below the surface is the layer of concern (pit profile). We found this layer on both east and west facing slopes around 8,800 ft indicating it was not isolated to one slope. This layer is similar to the one Doug and I found near Beaver Creek in the southern Madison range that resulted in a human triggered avalanche. The tricky thing about buried weak layers is they are often spatially variable - meaning they may or may not exist in a specific area. The best bet is to dig a pit or pits on the slope you plan to ride or on a slope with a similar aspect and elevation.

Although buried weak layers do not have a widespread distribution throughout our advisory, pockets of instability do exist. Slopes that have been heavily loaded by the wind will be the most likely to produce an avalanche. Avoiding large wind rolls or slopes under cornices will be the best way to avoid triggering a slide.

Before heading into avalanche terrain, evaluate the snowpack carefully and always think about the consequences of triggering a slide. Also, following simple rules such as putting one person on the slope at a time and watching your partner from a safe location will increase your safety margin when riding in the backcountry.

Today, human triggered avalanches are possible on wind loaded slopes where the avalanche danger is rated MODERATE. Slopes that have not received a wind load have a LOW avalanche danger.

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.