GNFAC Avalanche Advisory for Sun Mar 7, 2010

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

Mountain Weather

High Pressure has once again parked it over southwest Montana creating spring like weather that feels much more like April than March. Temperatures have been well above normal with highs in the upper 40's F and lows in the 20's F. Winds have been light out of the S-SW at 5-10 mph. Today will be a near carbon copy of yesterday with highs reaching close to 50 degrees and lows dropping into the 20's F by tomorrow morning. Winds will remain light out of the S-SW at 5-10 mph.

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:

Spring like weather has arrived to southwest Montana creating a wide variety of riding conditions. North facing slopes are still staying cold and dry while south, east, and west facing slopes are becoming more variable with the absorption of radiant heat. As north facing slopes stay protected from the sun, weak layers buried close to the surface are also staying protected (photo). Surface hoar is still being found 1-2 feet below the surface on shady slopes; However, this layer is taking more force to fail in stability tests and is showing signs of strengthening. Of course we still have a weak layer of facets near the ground which is producing large avalanches with the proper trigger (**photo 1**, **photo 2**) and should never be fully trusted.

South facing slopes have a different snowpack structure caused by long exposure to the sun. This can help or hurt the snowpack from a stability standpoint. In the morning south facing slopes tend to be frozen in place, that is if it freezes overnight, and generally have good stability. As the day heats up, the snow closest to the surface starts to lose cohesion. This loss of cohesion facilitates unstable conditions and can result in wet snow avalanches. Wet snow avalanches generally initiate as point releases near rock bands or ridgelines and have the ability to entrain large amounts of snow. These point release or wet snow avalanches can be very dangerous and should be highly considered if you are in the backcountry past noon.

Yesterday I visited the Taylor Fork south of Big Sky and found a mixed bag of riding conditions. North facing slopes still held good snow with plenty of recrystallized powder or surface hoar (photo), but I was hesitant to jump on any slope steeper than 35 degrees. South facing slopes had a much thinner snowpack and were starting to soften up under the large intake of solar radiation. This made for difficult travel conditions as heavy wet snow continuously balled up under my skis and skins. Overall we had no difficulty finding weak snow in the Taylor Fork, but there just wasn't the load to make this weak snow unstable.

Despite the fact we have not had a significant snowfall in quite some time, it is still possible to find the right conditions capable of producing an avalanche. For this reason human triggered avalanches remain possible and the avalanche danger is rated **MODERATE**.

I will issue the next advisory tomorrow morning at 7:30 a.m. If you get out in the backcountry let us know what you find. You can reach us at 587-6984 or email us at mtavalanche@gmail.com.

Avalanche Education & Event

1. Bell Lake Yurt, Tobacco Root Mountains

Montana Backcountry Adventures - Level I Avalanche Course

Wednesday, March 10th to Friday, March 12th

For more info call 995-3880 or go to www.skimba.com