GNFAC Avalanche Advisory for Sun Mar 28, 2010

Good Morning. This is Eric Knoff with the Gallatin National Forest Avalanche Advisory issued on Sunday, March 28 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

A brief ridge of high pressure has brought spring like conditions to southwest Montana. Currently, mountain temperatures are ranging from the upper teens to the high twenties and winds are blowing out of the W-NW at 5-15 mph, with an exception of the Bridger Ridge where winds are blowing 20-25 mph out of the W. Today, temperatures will warm rapidly into the mid to high forties and winds will remain out of the W at 5-15 mph. We should start to see increasing clouds and stronger ridgetop winds by this evening as the next storm system approaches from the west.

Wet Snow Avalanche Danger

Today's weather will start out chilly, but will warm rapidly under mostly sunny skies and calm conditions. Wet snow avalanches will become a concern as the new snow heats up under the intense rays of the sun (**photo**). By this afternoon the wet snow avalanche danger could rise to **CONSIDERABLE** on all sun exposed slopes.

Snowpack and Avalanche Discussion

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

Over the past seven days, Mother Nature has delivered a welcomed shot of snow to our advisory area bringing with it smiles, high fives and avalanches! This round of storms has deposited quite a load of snow atop multiple weak layers that formed during the extended high pressure we experienced in February and March. The most notable weak layer is a thin deposit of near surface facets that is now buried 1-2 feet below the surface on aspects that have not been heavily affected by the sun.

Mark and I found this layer in the northern Bridgers on Friday, and it produced clean easy shears in our stability tests (**video**). I found this layer again in multiple snowpits near Hyalite Peak yesterday, but it appeared less sensitive in Hyalite than it was in the Bridgers. Further south near Cooke City, a regular observer found a similar layer that was sensitive on some slopes and less on others. Conversely, on slopes with growing exposure to the sun, the new snow was deposited on sun crusts. These crusts are tough for the new snow to bond to and make for a good bed surface for the new snow to run on.

To add yet another facet to the avalanche puzzle, strong mountain winds over the past few days have formed dense slabs that have failed both naturally and under the stress of skiers and riders. Yesterday, while skiing near Hyalite Peak in the northern Gallatin Range, I observed numerous natural wind slab avalanches that initiated near ridgelines and ran hundreds of feet down slope. On Friday, two separate wind slab avalanches were triggered off Saddle Peak near Bridger Bowl. The largest of the two was triggered near the north summit of Saddle Peak and ran over 1,000 vertical feet into the going home chute.

Although these isolated wind slabs are mainly confined to the new snow, they have a surprising ability to encompass large amounts of snow and run long distances. They also have the ability to step down into deeper

layers producing larger and more climactic avalanches. Yesterday, the Big Sky Ski Patrol spotted a large natural avalanche on Cedar Mountain that broke 150-200 feet across, 3-6 feet deep and failed on facets near the ground. This slide was likely triggered by a small sluff that poured over a cliff above the slope. As one patroller put it - "It is still out there."

With multiple weak layers now being capped by new snow and wind slabs, human triggered avalanches are probable on all wind loaded slopes steeper than 35 degrees where the avalanche danger is rated **CONSIDERABLE**. All other slopes have a **MODERATE** avalanche danger.

YouTube: Saddle Peak Avalanche Q&A

The Saddle Peak Avalanche Q&A held March 4th at the Bozeman Public Library is now online thanks to the Randy and Kristin Wimberg. The entire 75 minute session can be viewed in two parts. Find it on our **Videos Page** or here: **Part 1**, **Part 2**.

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.