GNFAC Avalanche Forecast for Sat Mar 2, 2013

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Saturday, March 2 at 7:30 a.m. **Grizzly Outfitters** in partnership with the **Friends of the Avalanche Center** sponsors today's advisory. This advisory does not apply to operating ski areas.

Mountain Weather

Yesterday about an inch of snow fell near Cooke City and West Yellowstone. This morning temperatures were in the high 20s F with winds blowing 15 mph from the W and gusting to 20 mph. Yesterday in the mountains near Bozeman, winds were blowing 20-40 mph. Today will be a mix of clouds and sun. High temperatures will be in the 30s F and may reach the 40s in places. Winds will increase slightly and shift to the SW bringing snow tonight. By Sunday morning several inches will have fallen with more to come throughout the day.

Snowpack and Avalanche Discussion

Bridger Range Madison Range Gallatin Range

Lionhead area near West Yellowstone Cooke City

Stability is neither really good nor really bad. The reason for heightened avalanche conditions in some terrain is the presence of **faceted layers in the upper 3 feet** of the snowpack. Also, recent strong winds, especially in the Bridger Range, formed **fresh wind slabs**. Warm temperatures will help these wind slabs stabilize and make them more difficult to trigger.

- Yesterday my partner and I found 4 different faceted layers in the snowpack in the northern Bridger Range (**profile**). We generally felt safe skiing steep terrain in the trees but with these layers lurking beneath our feet we carefully assessed each slope. With avalanches the snowpack should be assumed guilty until proven innocent.
- We also investigated a cornice triggered avalanche on Hardscrabble Peak (**photo**). It broke on very weak facets on a rocky bed surface and produced a massive pile of debris.
- Near Hebgen Lake north of West Yellowstone this week, skiers found weak facets about 2.5 feet deep breaking cleanly and propagating fractures in stability tests. They opted to ski low angle slopes.
- Also this week, Doug and Karl found plenty of weak facets on Mt. Ellis. These facets also propagated fractures near the ridgetop where winds had deposited snow but did not propagate in the burned area with no wind-blown snow.

The reason conditions are not really bad is that regular and light snowfall has gradually buried these faceted layers without stressing them too much. However, snowfall this Sunday could push them closer to their breaking point. Stable slopes definitely exist as skiers found in the upper bowls of Hyalite on Thursday, but recent avalanches continue to remind us that unstable slopes also exist.

What to do? Dig about 3 feet deep in several different places and conduct several stability tests. Be especially wary of any snowpack with a total depth of 3-4 feet (about a ski pole length). In these places very weak facets usually exist near the ground and could produce an avalanche like one Eric and I investigated on Thursday (**photo**) on Mt Wheeler. Lastly, look for fresh wind slabs and don't trust them. Today human triggered avalanches remain possible and the avalanche danger is rated **MODERATE**.

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.