

## **GNFAC Avalanche Forecast for Thu Feb 20, 2014**

Good Morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Thursday, February 20 at 7:30 a.m. **Mystery Ranch**, in partnership with the **Friends of the Avalanche Center**, sponsors today's advisory. This advisory does not apply to operating ski areas.

### Mountain Weather

Snow fell yesterday morning and last night. The mountains near Cooke City and the Bridger Range receiving 5-10 inches of snow, the mountains near Big Sky and south of Bozeman received 6 inches, and the mountains near West Yellowstone received a trace. Winds eased just a little this morning and were blowing 15-25 mph gusting to 40 mph from the SW in some places and NW in others. Temperatures had dropped into the single digits F. Today will have more of the same – strong winds and snow. Temperatures will reach the high teens and low 20s F and winds should increase a little this afternoon. Snow will return around midday with 4-5 inches of new snow by tomorrow morning.

### Snowpack and Avalanche Discussion

#### Cooke City

The snowpack near Cooke City continues to get loaded with new snow and wind. Since the end of a dry period in late January, the mountains near Cooke City have received snowfall containing 8.6 inches of **SWE** which is roughly 10 feet of snow. Strong winds have occurred for the last week. The long term forecast for stability is good once the snowpack gets a breather. For now however, the snowpack is like anything else – add enough stress and it will break. With more snow yesterday, more strong winds, and more snow coming, avalanches (**photo**) will continue to occur. Some slides may even be triggered from flat terrain underneath steep slopes. Slopes receiving wind-blown snow have the most stress and are the most likely to slide, thus the avalanche danger is rated **HIGH** on any wind-loaded slope and **CONSIDERABLE** everywhere else.

#### Madison Range Gallatin Range

#### Lionhead area near West Yellowstone

New snow and strong winds make wind slabs which always make avalanches. As always, watch for and avoid these fresh wind slabs because they will slide.

Another more difficult problem is a weak layer of faceted snow buried 1.5 to 2 feet deep that formed during a dry spell in the last two weeks of January. You can find this layer on most slopes. It is an obvious stripe in snowpit walls. This layer has been responsible for many recent avalanches. Notable ones include one near Big Sky in Beehive Basin (**photos**, **video**, **accident report**), large natural slides that Eric spotted above Quake Lake near West Yellowstone (**photo**), a skier triggered slide in the southern Madison Range (**photo**), and one Doug triggered near Carrot Basin (**photo**, **video**). Another slide occurred on Lionhead that partially buried two snowmobilers but we don't have more information about it.

Yesterday my partner and I skied near Hyalite Peak in the northern Gallatin Range. We did ski in avalanche terrain but only after a very careful snowpack evaluation. We got good stability test results, my partner has been skiing in that area a lot recently and has not seen any recent avalanches on this layer, and recent snowfall has been light. However, the simple presence of this faceted layer meant we had a yellow light despite other factors

giving us a green light. For this reason we chose a slope mostly in the low 30's for steepness and with a clean runout (i.e. no trees, cliffs, or rocks to cause injury in an avalanche)

Unfortunately we have not found a clear pattern for where this faceted layer will produce avalanches and where it will not. There are many variables, but recent avalanche activity on this layer is clear evidence that it can and will produce more slides. Recent snow and strong winds as well as more coming today do not help because they add stress to this layer. Riding in avalanche terrain is a dangerous game right now. For this reason today the avalanche danger is rated **CONSIDERABLE**.

### **Bridger Range**

Today the main issue in the Bridger Range is new snow and strong winds. There is nearly a foot of new snow at the top of the Bridger chairlift. Winds have transported this new snow and formed fresh pillows and wind slabs that should make avalanches this morning. Gullies or other terrain features should be cross loaded by southerly winds. The Bridger Range also has a layer of facets buried about 2 feet deep. So far it does not seem well developed and does not seem to be a problem in the Bridger Range. However, this layer has caused slides in other areas and is worth evaluating. Today the avalanche danger is rated **CONSIDERABLE** on any wind loaded slope OR on any slope over 35 degrees in steepness. Less steep slopes without a wind load have a **MODERATE** danger.

### **Beehive Basin Accident Report**

The Beehive Basin Accident report is posted online and can be read here:

<http://www.mtavalanche.com/accident/14/02/18>

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](mailto:mtavalanche@gmail.com) or call us at 587-6984.

### **EVENTS/EDUCATION**

February 22, BIG SKY: Saturday, 10 a.m. – 2 p.m., Beehive Basin Trailhead, **Companion Rescue Clinic**. In partnership with Grizzly Outfitters. Space is limited and pre-registration is required.

<https://ticketriver.com/event/9964>

February 22, WEST YELLOWSTONE: Saturday, 7:00-8:00 p.m., Holiday Inn, **1 –hour Avalanche Awareness for Snowmobilers** lecture.

More information our complete calendar of events can be found **HERE**.