

## **GNFAC Avalanche Advisory for Thu Jan 10, 2013**

Good morning. This is Mark Staples with the Gallatin National Forest Avalanche Advisory issued on Thursday, January 10 at 7:30 a.m. Today's advisory is sponsored by On Site Management and Alpine Orthopedics. This advisory does not apply to operating ski areas.

### **AVALANCHE WARNING**

**ISSUED ON JANUARY 11 2013 AT 5:00 am**

The Gallatin National Forest Avalanche Center is issuing a Backcountry Avalanche Warning for the Southern Madison and Southern Gallatin Ranges and the Lionhead area near West Yellowstone. About one foot of new snow rests on an extremely weak layer of faceted snow crystals. Today the avalanche danger is [HIGH](#) on all slopes. Areas of unstable snow exist. Natural and human triggered avalanches are likely. Avalanche terrain including avalanche runout zones should be avoided.

This warning will either be terminated or updated by 6:00 AM on January 12, 2013

### **Mountain Weather**

No snow fell yesterday or overnight, but snowfall started this morning near West Yellowstone with 2 inches of new snow at 6 a.m. and snow just beginning near Big Sky. This morning, mountain temperatures were mostly in the 20s F except in the Bridger Range where temperatures were near freezing. Winds eased a little this morning and were blowing 10-20 mph from the SSW with gusts of 30 mph; however, winds remained strong in Hyalite Canyon where they were averaging 30 mph with gusts of 50 mph.

A slow-moving winter storm will bring snowfall throughout the advisory area today. Temperatures should drop a few degrees and reach 0 F by tomorrow morning. Winds will also decrease. By tomorrow morning 8-10 inches of snow will fall near in the mountains West Yellowstone and Cooke City, 6-8 near Big Sky, and 3-6 near Bozeman. All the meteorological factors for snow are aligning well today making higher snow amounts possible. Snowfall will continue through Friday.

### **Snowpack and Avalanche Discussion**

Madison Range Southern Gallatin Range

Lionhead area near West Yellowstone Cooke City

Snowfall on Monday and Tuesday totaled about 5 inches near Big Sky, about 7 inches near West Yellowstone and 12 inches near Cooke City. Since then strong winds from the SW easily redistributed this snow. Near Cooke City yesterday, my partner and I found widespread wind drifts and wind slabs resting on lower density snow, a great recipe for avalanches. Although we found only one small, natural avalanche, wind loaded slopes would have been prime places for human triggered slides.

Fresh wind slabs always create an avalanche problem, but a longer lasting problem is a layer of weak, faceted snow that formed on the snow surface during dry weather after New Year's. In many places this layer is near-

surface facets, and in a few places (Beehive Basin and Town hill near Cooke City) this layer is surface hoar ( [photo](#)). The type of crystal doesn't matter because both are weak and will remain fragile for weeks to come ( [video](#)). This layer will be tricky because it exists on many slopes in some areas and exists on only a few slopes in areas like Cooke City.

For today, any slope with a wind-load has a [CONSIDERABLE](#) avalanche danger since it's likely someone can trigger an avalanche. On slopes without a wind-load the avalanche danger is rated [MODERATE](#).

### Bridger Range   Northern Gallatin Range

The Bridger and northern Gallatin Ranges have a similar weak layer ([video](#)) as the rest of the advisory area, but they only received an inch or two of snow early this week. While these areas have not received much new snow, they experienced equally strong winds that stripped some slopes to bare ground. These strong winds created widely variable surface conditions, thus the distribution of the near-surface weak layer is random and will be tricky to map once it is buried by today's snowfall. For today the avalanche danger is rated [MODERATE](#) on all wind-loaded terrain and [LOW](#) on all other slopes.

### Avalanche Danger Rising

Be heads up today. As quickly as snow falls, the avalanche danger will rise quickly too and could easily become [HIGH](#) today or even reach avalanche warning criteria. Stay tuned. If such criteria are met, we could issue a warning this afternoon.

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. If you are unsure what types of information we are looking for, this article explains it well ([article](#)).

### EDUCATION

Saturday and Sunday, January 12 and 13, Snowmobiler Introduction to Avalanches with Field Course in Bozeman. For more information and to sign up: <https://www.ticketriver.com/event/4979-snowmobiler-introduction-to-avalanches-w-field>

THIS CLASS IS FULL, WAITLIST ONLY. Thursday and Saturday, January 10 and 12, Rescue Clinic. Thursday at 6:00 p.m. at REI, Bozeman and Saturday at 10 a.m. in the field, location TBD. To get on the waitlist: <http://www.rei.com/event/47692/session/64126>

Wednesday, January 16, 7:00 p.m. "The Sidecountry is Backcountry" at MSU's Procrastinator Theater in Bozeman, a free 1-hour presentation.

Saturday, January 19, Rescue Clinic for Snowmobilers in Cooke City starting at Cooke City Motorsports. This 6 hour clinic teaches how to use avalanche rescue gear and perform an avalanche rescue. Registration is required. For more info and to sign up, visit: <https://www.ticketriver.com/event/4980-companion-rescue-clinic-for-snowmobilers>

Saturday, January 19, 6 -7 p.m., 1-hour Avalanche Awareness at the Cooke City Community Center.