GNFAC Avalanche Forecast for Thu Feb 6, 2025

This is Mark Staples with the avalanche forecast for Thursday, February 6th, at 7:00 a.m. dedicated in memory of our dear friend <u>Janet Krob</u> and sponsored by the <u>Gallatin Valley Snowmobile Association</u>. This forecast does not apply to operating ski areas.

Mountain Weather

It's been a roller coaster of crazy weather:

Friday (Jan 31) through late Monday brought 30" snow (3" water) to mountains near Cooke, 16-21" snow (2-2.4" water) to mountains near Island Park and West Yellowstone, and 12-20" snow (1-1.6" water) to the Bridger, Gallatin, and Madison Range. The tail end of these storms delivered a very rare **coating of dust** (photo) to the snowpack in all areas except the Bridgers. This dust may impact the snowpack later, but for now it indicates **unusual weather**.

Tuesday had temperatures well above freezing in many areas while the Gallatin Valley struggled to get above zero degrees F. Very strong winds from the south began ramping up.

Wednesday (yesterday) had continued very strong winds (gusts up to 80 mph) from the south and temperatures near freezing while many valleys had temperatures 30 degrees colder. Snow started falling yesterday and temperatures started dropping. The Bridger Range picked up 6-9" snow (0.5-0.6" water) while most other areas received 3-4" snow (0.3-0.4" water).

This morning mountain temperatures are 5-10 degrees F which are 25 degrees colder than this time yesterday. Winds aren't as strong and are blowing more from the west 15-30 mph gusting 40-60 mph.

Today there may be a little sunshine this morning but clouds will be increasing through the day with winds decreasing. Temperatures should generally get into the mid teens F. An area of low pressure (aka a storm) will hit the west coast today and bring snowfall to our area tomorrow. There may be a few snowflakes in the air late today, and Friday should have 3-4" of snow with strong winds from the southwest mainly near West Yellowstone, Island Park, and Cooke City.

Snowpack and Avalanche Discussion



Gallatin Range Madison Range Lionhead Range Cooke City Island Park

My head is still spinning trying to make sense of avalanche conditions following this roller coaster of weather, and frankly I don't have any trust in the snowpack at the moment.

The biggest issue is recent **hurricane force winds from the south**. The Big Sky Ski Patrol intentionally triggered an avalanche with explosives on a slope loaded by these winds producing a slide up to 7 feet deep breaking on the old snow surface from dry weather in late January. They haven't seen an avalanche like that on that slope in 40-50 years. What do you think we might find in the backcountry? (photo, news story).

Near Cooke City, large avalanches have been spotted on <u>Crown Butte</u>, <u>Scotch Bonnet</u>, <u>Henderson</u>, and <u>Miller Ridge</u>. Near West Yellowstone on Lionhead, slightly smaller but many fresh wind slabs were <u>spotted on Tuesday</u>. Yesterday at low elevations in the cold air (below the inversion) on Mt Ellis in the northern Gallatin Range, a skier triggered and spotted many storm slab avalanches in the new snow.

When you add it all up, these are dangerous avalanche conditions creating several avalanche problems stacked on top of each other - wind slabs, persistent slabs, storm slabs.

- 1. There are weak layers of small facets buried 1-3 feet deep that formed during dry weather in late January. These weak layers seem more widespread the further south you go. See this video near West Yellowstone and this one near Big Sky.
- 2. There has been a lot of snow from this weekend and yesterday.
- 3. The snow surface got a coating of dust and then became wet on some slopes during warm temperatures late Tuesday.
- 4. There have been really strong winds from the south and west. Shifting wind directions and new snow yesterday will make it harder to identify recent wind slabs.

For today the avalanche danger is <u>CONSIDERABLE</u>. I'm unsure of the likelihood of triggering avalanches today, but I know these are dangerous conditions requiring careful snowpack evaluation, cautious route finding, and conservative decision making.



The main avalanche problems in the Bridgers are tied to yesterday's 6-9" of new snow and winds from the north, south, and west both yesterday and earlier this week creating a wind slab avalanche problem. Storm slabs that were sensitive yesterday during high snowfall rates shouldn't be much of an issue today but still something to watch out for.

- Skiers north of Bridger Bowl on the ridge spotted numerous **wind slabs** that released naturally like <u>one in</u> the Hourglass couloir not too deep but 200' wide.
- Another group below heard those avalanches rumbling down but were in safe locations.
- On Tuesday, three skiers triggered an avalanche on a wind-loaded terrain feature on Saddle Peak that ran 400 vertical feet. Thankfully, no one was caught, and the slide stopped above the large cliffs (**photo**).
- <u>Further north towards Ross Peak</u>, skiers observed cracking and many small storm slab avalanches that seemed to be at lower elevations underneath the inversion where the new snow landed on old cold snow.

Today dangerous avalanche conditions exist where winds deposited yesterday's snow and the danger is CONSIDERABLE on wind loaded slopes. Non-wind loaded slopes have a MODERATE danger where there may be some lingering storm slab instabilities.

Upcoming Avalanche Education and Events

Our education calendar is full of awareness lectures and field courses. Check it out: **Events and Education Calendar**

February 6, 6-8 p.m. & February 8, 10 a.m - 2 p.m. Companion Rescue Clinic. Evening lecture at REI in Bozeman. Field session at History Rock. Details and signup here.

February 20, 4-7 p.m. Beacon BBQ at Uphill Pursuits in Bozeman. Come try out different brands of avalanche transceivers (or practice with your own!) with coaching from Friends of GNFAC instructors and free hotdogs.

Every weekend in Cooke City: Friday at The Antlers at 7 p.m., Free Avalanche Awareness and Current Conditions talk, and Saturday from 10 a.m.-2 p.m. at Round Lake Warming Hut, Free Rescue Practice.