GNFAC Avalanche Forecast for Thu Dec 19, 2024

This is Mark Staples with the avalanche forecast for Thursday, December 19th, at 7:00 am. This information is sponsored by **Spark R&D** and **Gallatin County Sheriff Search and Rescue**. This forecast does not apply to operating ski areas.

Mountain Weather

Yesterday's strong winds from the W were like a giant hair dryer melting snow off my sidewalk. In the mountains, they created massive plumes of snow as upper elevation wind gusts hit 80 mph. Most ridges had sustained 25-40 mph winds. Mountain temperatures were in the upper 20s F while they were above freezing in the Bridger Range. **Snow** fell near Cooke City with maybe 0.5 inches of SWE, but it's hard to tell how much because of the strong winds.

This morning winds have shifted direction and eased. Bringing cooler air from the NW, winds are averaging 15-20 mph gusting 35-40 mph. Temperatures are mostly in the upper teens F.

Today will be a gorgeous day in the mountains with a ridge of high pressure bringing mostly sunny skies, some high level clouds this afternoon, and temperatures warming near freezing again. Winds will steadily decrease through the day. This ridge of high pressure will remain through Saturday evening when a series of troughs or storms begin rolling through the area, but no major storms and snowfall are in the forecast yet.

Snowpack and Avalanche Discussion

All Regions

A persistent slab avalanche problem exists throughout the forecast area with a weak layer of faceted snow buried 1-2 feet deep on nearly all slopes. This weak layer formed on top of the snowpack during dry weather in the first two weeks of December, and in some places it includes a layer of surface hoar. A few small storms capped this weak layer, and then snowfall from Saturday night through Tuesday built a slab on top of it. That snow also dramatically improved skiing and riding conditions.

- A group in Beehive Basin yesterday found this layer producing unstable results in snowpack tests.
- A group in Hyalite had a similar observations.
- My riding partners and I found this weak layer near Sawtelle Peak near Island Park on Tuesday.
- A group near Cooke City yesterday experienced shooting cracks.
- Dave and his partner found it near Cooke City on Monday & Tuesday

See the full list of observations HERE.

Yesterday's winds left few slopes untouched - loading many with wind blown snow or creating a more cohesive slabs on other slopes without obvious drifting. Whether a wind slab is present or not, the end result is that persistent slab avalanches remain likely.

The challenge today is that you may not get direct feedback from the snowpack with obvious signs like shooting cracks or collapsing/whumpfing. Yesterday in Beehive Basin near Big Sky, Ian and I couldn't find any of those obvious clues, but a quick snowpit and an extended column test immediately showed us the problem.

Recent avalanche activity (view all activity **HERE**) has been a bit on the small side, but I expect **avalanches today to be larger** as a result of yesterday's winds creating a more cohesive slab.

The combination of a widespread weak layer, recent snowfall followed by major wind loading, recent avalanche activity, and consistently poor snowpack test results indicates dangerous avalanche conditions. For this reason the avalanche danger is CONSIDERABLE. Seek out slopes less than 30 degrees in steepness relatively sheltered from the wind for the best and safest conditions today.

Upcoming Avalanche Education and Events

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

TODAY Thursday, Dec 19 and Saturday, Dec 21, **Companion Rescue Clinic** at REI in Bozeman and History Rock. 6 to 8 pm on Thursday, 10 to 2 pm on Saturday.

Friends of the Avalanche Center: Fall Fundraiser!

We're still counting on your support and the online Fall Powder Blast fundraiser is 79% of the way to our goal. Please consider making even a small donation **HERE** or via **Venmo**