

GNFAC Avalanche Forecast for Sun Dec 29, 2024

This is Alex Marienthal with the avalanche forecast for Sunday, December 29th, at 7:30 a.m. This forecast is made possible by [Rescue Randy's Snowmobile Recovery](#) and [Cooke City Motorsports](#). This forecast does not apply to operating ski areas.

Mountain Weather

Since yesterday morning the mountains near Cooke City and Island Park received 5" of new snow, 2-3" fell near West Yellowstone and Big Sky, and 1" near Bozeman. Wind has been out of the west, southwest and south at 15-25 mph with gusts of 30-50 mph. Temperatures are teens to 20s F this morning.

Today, temperatures will reach high 20s to low 30s F, and wind will be out of the southwest and west at 10-20 mph with gusts to 30 mph. Snowfall is expected to start this morning, and will be intense at times through tonight. By tomorrow morning the mountains could have 8-15" of new snow. Forecasts favor Cooke City and Island Park to get the higher end of that range.

Snowpack and Avalanche Discussion



Southern Madison Southern Gallatin Lionhead Range Island Park

Intense snowfall with moderate wind will create dangerous avalanche conditions, and large human-triggered avalanches are likely. Snow stability will get worse through the day, especially on wind loaded slopes where natural avalanches are likely during the storm.

The snowpack has weak layers of sugary facets and surface hoar buried 1-3' deep which showed signs of instability over the last couple days, including a [vague report](#) of a snowmobile triggered avalanche that partially buried a rider near Lionhead ([Lionhead video](#), [Island Park video](#), [Bacon Rind video](#)). **Persistent slab avalanches** breaking on this weak layer can break hundreds of feet wide and can be triggered from lower angle terrain connected to slopes steeper than 30 degrees.

Choose terrain that is less than 30 degrees steep, and not connected to or below anything steeper. Be extra cautious of steep wind-loaded slopes, and avoid crossing or sitting in runout zones below. The avalanche danger is [HIGH](#) on wind-loaded slopes and [CONSIDERABLE](#) on all other slopes near Island Park, West Yellowstone and in the southern Madison and Gallatin Ranges.



Bridger Range Northern Gallatin Northern Madison Cooke City

Heavy snowfall and moderate wind will cause the avalanche danger to rise through the day. A person can trigger **wind slab avalanches** that easily break within fresh drifts that form today. These can be large enough to bury a person, especially near Cooke City where more snow has fallen over the last week (18" = 1.8"SWE) and more is expected today.

Additionally, **persistent slab avalanches** could break deeper on weak layers buried 1-3' deep. While there has been less signs of instability recently in these areas, snowfall has been slowly adding weight over the last week, and today's intense snowfall and wind could finally overload the strength of these weak layers ([Cooke City video](#), [Bridgers video](#), [Hyalite media and observation](#)). Avalanches on persistent weak layers are less predictable, and can break after multiple people cross a slope, and without obvious signs of instability. If you have any doubt about snowpack stability, steer clear of steep slopes and runout zones below.

Practice conservative decision making today, and choose routes that avoid wind-loaded slopes steeper than 30 degrees. Human triggered avalanches are likely, especially on wind-loaded slopes, and the avalanche danger is [CONSIDERABLE](#) near Bozeman, Big Sky and Cooke City.

Upcoming Avalanche Education and Events

Our education calendar is full of awareness lectures and field courses. Check it out: [Events and Education Calendar](#)

Monday, December 30, 6-8 p.m., Free Avalanche Awareness and Conditions Update, MAP Brewing.

Wednesday, January 8, 2025, 7-9:30 p.m., Avy Savvy Night at the Colonial Theater, Idaho Falls. More information [HERE](#).

We offer *Avalanche Fundamentals with Field Session* courses targeted towards non-motorized travelers in [January](#) and one geared towards [motorized users](#). Sign up early before they fill up.

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.

Friends of the Avalanche Center: Fall Fundraiser!

We're still counting on your support and the online Fall Powder Blast fundraiser is 80% of the way to our goal. Please consider making even a small donation [HERE](#) or via [Venmo](#)