

GNFAC Avalanche Forecast for Mon Jan 13, 2025

This is Alex Marienthal with the avalanche forecast for Monday, January 13th, at 7:30 a.m. sponsored by [World Boards](#), and [Uphill Pursuits](#). This forecast does not apply to operating ski areas.

Mountain Weather

Since yesterday morning the mountains near Bozeman, Big Sky and Cooke City got 2-5" of low density snow, and zero fell near West Yellowstone and Island Park. **Since Friday night snowfall totals are:**

- 16-20" (1.2-1.3" [Snow Water Equivalent](#) (SWE)) in the Bridger Range and Hyalite.
- 9" (0.6" SWE) in Big Sky, with 12"+ in favored locations like the south face of Lone Mtn.
- 8" (0.6" SWE) in Cooke City.
- 3-4" (0.3-0.4" SWE) in Island Park, West Yellowstone, and Taylor Fork.

Wind has been out of the northwest and west at 10-20 mph with gusts to 25 mph, and was stronger in the Bridgers yesterday with gusts to 38 mph. Today wind will be from the west and northwest at 10-15 mph with stronger winds possible in the mountains near Bozeman. **Temperatures** are single digits to teens F this morning, and today temperatures will be in the teens F. Today will be mostly cloudy with light snow showers this morning. Near Bozeman, Big Sky and Cooke City could get 1-3" of light snow with less than 1" near Island Park and West Yellowstone.

Snowpack and Avalanche Discussion



Bridger Range Northern Gallatin Northern Madison

New snow from the weekend makes human-triggered avalanches likely. This new snow is in addition to more than 4-5 feet that fell over the last two and a half weeks (4-5" of snow water equivalent throughout the forecast area).

Recent winds, mainly out of the northwest and west, have drifted snow into thicker slabs that are easy to trigger. These **wind slab avalanches** can be 1-4' deep and large enough to bury a person, and smaller slides can easily knock you over and be dangerous if they drag you into trees, over cliffs or pile deep in a narrow gully. Wind Slabs broke naturally on Friday ([observation and photos](#)) and Saturday ([observation and photo](#)), so expect drifts to break easily today.

The last 2+ weeks of snow built a thick slab and steadily added weight to weak layers at the bottom of the snowpack. This snowpack structure makes **persistent slab avalanches** possible. ([observation of buried weak layers](#)). These slides could be triggered from shallower areas on a slope like near rock outcrops or wind-scoured ridges and propagate to where the snowpack is many feet deep (see [Mark's video from Blackmore](#)). Minimize the chances of these deeper slides by choosing slopes sheltered from wind-loading and with a generally uniform snowpack depth across the slope. Small slopes with clean runouts free of trees, rocks or gullies also greatly minimize the consequences of any size slide.

The avalanche danger is [**CONSIDERABLE**](#) on windloaded slopes and [**MODERATE**](#) on all other slopes.



Southern Madison Southern Gallatin Lionhead Range Cooke City

Near Cooke City and West Yellowstone the primary concern is **persistent slab avalanches** breaking on weak layers near the bottom of the snowpack.

Over the last week near Cooke City, avalanches 4-6' deep broke naturally or some were possibly triggered from flat terrain a long distance away ([Mt. Abundance photo](#), [Henderson Mtn. photo](#), [Fisher Mtn. photo](#)). The most recent was reported yesterday on west Woody ridge ([observation and photos](#)).

Near West Yellowstone and the southern Madison and southern Gallatin Ranges the snowpack is shallower, but the same poor structure exists. These mountains received less snow over the last week, but the shallower slab above the weak layer makes it easier to trigger avalanches 1-3' deep and up to hundreds of feet wide. This was evident yesterday when Dave and I experienced a loud, rumbling collapse on a low angle slope as we exited our snowpit ([observation](#) and [video](#) from yesterday).

Recent winds formed thick drifts which add weight to buried weak layers, and are a significant hazard on their own. **Wind slab avalanches** can be triggered where recent drifts formed and can be large enough to bury or injure a person ([photo of recent wind slab avalanche](#)).

Avoid slopes steeper than 30 degrees, especially slopes with recent drifts, and give a wide berth to the flatter runout zones below steep slopes. Human-triggered avalanches are likely and the avalanche danger is [CONSIDERABLE](#).



Island Park

Near Island Park received less snow over the last week, and has a deeper snowpack than the nearby Lionhead and southern ranges which has helped weak layers near the bottom of the snowpack slowly become more stable (Dave's [observation](#) and [video](#)). While it has become less likely, you can still trigger a **persistent slab avalanche** breaking 3-6' deep on weak layers. **Wind slab avalanches** of recently drifted snow are also possible. Minimize the chances and consequences of a dangerous avalanche by choosing smaller slopes sheltered from wind-loading, with clean runouts free of trees, rocks or gullies. Or you can greatly reduce your chance of triggering an avalanche by riding on slopes less than 30 degrees steep. The avalanche danger is [MODERATE](#) near Island Park.

Upcoming Avalanche Education and Events

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

Avalanche Fundamentals with Field Session for non-motorized travelers during the [last weekend of January](#).

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.