



Snoqualmie Pass

Issued: 3:02 PM PST Saturday, March 3, 2018

by Robert Hahn

NWAC avalanche forecasts apply to backcountry avalanche terrain in the Olympics, Washington Cascades and Mt Hood area. These forecasts do not apply to developed ski areas, avalanche terrain affecting highways and higher terrain on the volcanic peaks above the Cascade crest level.

UPDATED 1:20 PM March 3rd: There has been an avalanche involvement reported today. Initial reports indicate multiple-burial near Gallaher Head Lake (Kittitas County).

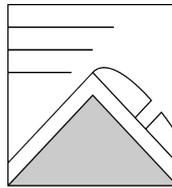
The Bottom Line: You can trigger Wind Slabs near and above treeline and dangerous Persistent Slab avalanches on steep sunny slopes. Persistent Slab avalanches are difficult to manage and can break widely. Avoid wind loaded areas and large open sun-exposed slopes 35 degrees and steeper.

Elevation	Saturday, March 3, 2018		Outlook for Sunday
Above Treeline	Moderate	Heightened avalanche conditions on specific terrain features. Evaluate snow and terrain carefully; identify problem features.	Moderate
Near Treeline	Moderate	Heightened avalanche conditions on specific terrain features. Evaluate snow and terrain carefully; identify problem features.	Moderate
Below Treeline	Moderate	Heightened avalanche conditions on specific terrain features. Evaluate snow and terrain carefully; identify problem features.	Moderate

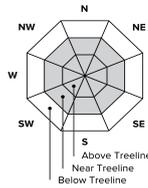
Avalanche Problems for Saturday

Wind Slab

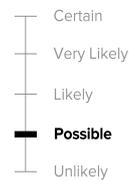
Wind slabs can take up to a week to stabilize. They are confined to lee and cross-loaded terrain features and can be avoided by sticking to sheltered or wind scoured areas.



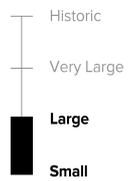
Avalanche Problem



Aspect/Elevation



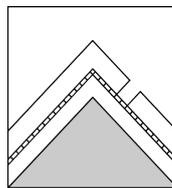
Likelihood



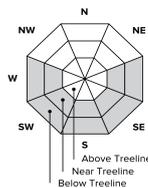
Size

Persistent Slab

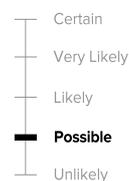
Persistent slabs can be triggered by light loads and weeks after the last storm. You can trigger them remotely and they often propagate across and beyond terrain features that would otherwise confine wind and storm slabs. Give yourself a wide safety buffer to handle the uncertainty.



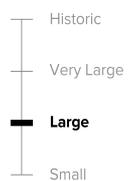
Avalanche Problem



Aspect/Elevation



Likelihood



Size

Avalanche Forecast for Saturday

You can trigger Wind Slab avalanches at upper elevations where drifted wind features exist. Avoid these avalanches by staying off of recent snow drifts, deeply pillowed features, and fresh cornices on leeward slopes 35 degrees and steeper. Soft non-wind-affected snow may cover wind slabs making them harder to identify. With fresh snow and sunny skies, you may see some small loose avalanches release on steep slopes, today. If you trigger an avalanche in the upper snowpack, it could dig down and become a dangerously large Persistent Slab avalanche.

You can trigger Persistent Slab avalanches in the upper snowpack on sun-exposed slopes steeper than 35 degrees. These avalanches are difficult to manage. To reduce your risk of being caught, avoid steep, open, sunny slopes, and large avalanche paths. Also watch out for unsupported slopes that end in rocks, cliffs or steep rolls. There is still a chance that you could trigger a Deep Persistent Slab avalanche on many slopes. While these avalanches are difficult to trigger, they are also very difficult to predict. They have a low likelihood of triggering but high consequences. You may not survive a Deep Persistent Slab avalanche. Stay safe by avoiding triggering smaller avalanches in the surface snow and staying off the previously mentioned steep slopes.

Avalanche Summary

Winds as recent as Thursday formed recent Wind Slabs on a variety of aspects near and above treeline. In sheltered areas generally soft unconsolidated surface snow exists.

A series of thin sun crusts surrounded by very small facets has been observed in the Cascade Passes. These layers have been the source of several avalanches earlier this week. Snow profiles and snowpack test can confirm the presence of this layer; however they are not good for proving its absences. On E-S-W aspects, a thin breakable sun crust formed early last week and was buried on 2/23. Very small weak facets have been reported surrounding the crust. This was the weak layer found or suspected in several avalanches 1.5-3 feet deep. This layer has not yet had significant time to heal. It is found 2-3 feet below the surface on steeper slopes that have received direct sun during the past week.

Some observations suggest other persistent grains at this same interface on shaded slopes. Buried surface hoar and large preserved stellars have been reported in recent avalanches and snowpack tests at this interface.

Avalanche and snowpack observations continue to indicate that avalanches are possible on a layer of weak sugary facets buried on 2/13. This weak layer is generally 3 to five feet below the snow surface just above a very firm melt-freeze crust (2/8).

There are no significant layers of concern below the 2/8 crust.

Observations

On Friday, a guide and avalanche professional reported a large avalanche near Highlands Bowl on a SSE aspect near treeline on Stevens Pass. This slope had seen recent wind loading and likely ran on the 2/23 facets about 2 feet below the surface.

NWAC forecaster Josh Hirshberg was on Nason Ridge Wednesday. He found the 2/23 crust 1.5 feet below the snow surface. While snowpack tests were variable, he did report several avalanches on sunny aspects which occurred earlier this week.

Stevens DOT reported two avalanches Wednesday morning. One failed on the 2/23 interface on a NE aspect. The weak layer appeared to be buried surface hoar. The other was a larger avalanche failing earlier in the weak on the 2/13 facet-crust combination. This is the most recent avalanche report we have on this layer from the West Slopes.

NWAC observer Jeremy Allyn was in the Snoquamie Pass area Wednesday. He reported wind transported snow near treeline. He found the 2/23 interface about 2 feet below the snow surface.

Avalanche and snowpack observations from around the western regions of the Cascades and Passes continue to indicate that propagation of an avalanche on the 2/13 facets is possible. This layer has been found 2.5 to 4 feet below the snow surface.

Mountain Weather Synopsis for Saturday & Sunday

A trough sits over the U.S. west coast with an embedded closed low off the coast of central Oregon slowly drifting south on Saturday, while a second closed low within the same trough is spinning over southern Alberta on Saturday morning and will drift north and slightly west today and tonight. The diverging lows will move moisture away from the forecast area. Convection is in the forecast and is bringing deeper cumulus clouds to most mountain locations this afternoon, with some scattered moderate-intensity snow showers mostly south of I-90. Tonight, the low off the coast of Oregon ejects east as the trough begins moving eastward. On Saturday as the trough exits, a very weak shortwave trough will rotate around the Alberta low, bringing another chance of light snow shower activity late Sunday and Sunday night. Snow levels will be below pass level throughout the short-term forecast period.

Precipitation Forecast

Location	Sun	Mon
Hurricane Ridge	0	lt .10
Mt Baker Ski Area	0	lt .10
Washington Pass	0	lt .10
Stevens Pass	0	lt .25
Snoqualmie Pass	0	lt .25
Mission Ridge	0	lt .10
Crystal Mt	lt .10	lt .10
Paradise	lt .10	.25 - .50
White Pass	lt .10	.25
Mt Hood Meadows	lt .25	.25
Timberline	lt .25	.25 - .50

LT = less than; WE or Water equivalent is the liquid water equivalent of melted snow in hundredths of inches. As a rough approximation 1 inch of snow = about .10 inches WE, or 10 inches of snow = about 1 inch WE.

Snow/Freezing Level (ft)

Day	Snow/Freezing Level (ft)							
	Hurricane Ridge	Mt. Baker	Washington Pass	Stevens Pass	Snoqualmie Pass	Mt. Rainier and Crystal Mt.	Mt. Hood	Easterly Flow in the Cascade Passes
Saturday Afternoon	2000'	1500'	2500'	None'	None'	2500'	None'	2000'
Saturday Night	1000'	0'	0'	None'	None'	1000'	None'	2000'
Sunday Morning	1500'	500'	0'	None'	None'	1000'	None'	1500'
Sunday Afternoon	2000'	2000'	2500'	None'	None'	3000'	None'	3000'
Sunday Night	1000'	1000'	1000'	None'	None'	1000'	None'	1500'

Cascade Snow / Freezing Levels noted above refer to the north (approximately Mt Baker and Washington Pass), central (approximately Stevens to White Pass) and south (near Mt Hood). Freezing Level is when no precipitation is forecast.

* Easterly flow in the Cascade Passes can cause locally lower Snow or Freezing levels than areas further west.