



West Slopes South - South of I-90 to Columbia River

Issued: 7:01 PM PST Tuesday, March 6, 2018

by Dennis D'Amico

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.

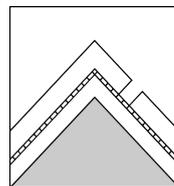
The Bottom Line: Persistent Slab avalanches claimed lives along the east slopes of the Cascades over the weekend. Similar Persistent Slab potential exists along the west slopes of the Cascades. Avoid complex terrain and sit out this low likelihood - high consequence problem; ensure a wide buffer between where you travel and open slopes over 35 degrees as well as large avalanche paths. Also watch for lingering wind slabs at higher elevations Wednesday.

Elevation	Wednesday, March 7, 2018		Outlook for Thursday
Above Treeline	Moderate	Heightened avalanche conditions on specific terrain features. Evaluate snow and terrain carefully; identify problem features.	Considerable
Near Treeline	Moderate	Heightened avalanche conditions on specific terrain features. Evaluate snow and terrain carefully; identify problem features.	Considerable
Below Treeline	Moderate	Heightened avalanche conditions on specific terrain features. Evaluate snow and terrain carefully; identify problem features.	Moderate

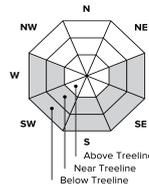
Avalanche Problems for Wednesday

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.



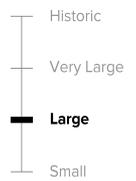
Avalanche Problem



Aspect/Elevation



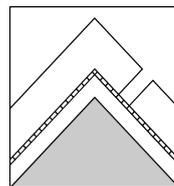
Likelihood



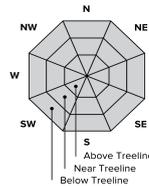
Size

Persistent Deep Slab

Deep, persistent slabs are destructive and deadly events that can take months to stabilize. You can triggered them from well down in the avalanche path, and after dozens of tracks have crossed the slope. Give yourself a wide safety buffer to handle the uncertainty, potentially for the remainder of the season.



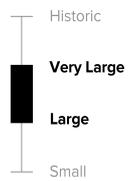
Avalanche Problem



Aspect/Elevation



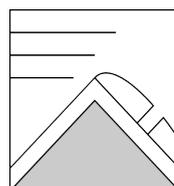
Likelihood



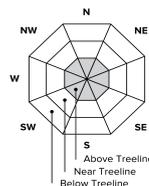
Size

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.



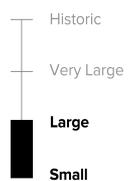
Avalanche Problem



Aspect/Elevation



Likelihood



Size

Avalanche Forecast for Wednesday

[Fatal avalanche incidents](#) along the east slopes of the Cascades occurred this weekend in the Teanaways near Long's Pass (Saturday) and north of the Methow Valley at Setting Sun Mountain (Sunday). Persistent Slab avalanches were reported both the Long's Pass and Setting Sun incidents. Recent Persistent Slab avalanche activity has been confined to the Stevens Pass area along the west slopes of the Cascades, but a similar snowpack structure exists in other areas along the west slopes.

You may be able to trigger Persistent Slab avalanches in the upper snowpack on sun-exposed slopes (generally southerly aspects) greater 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. If you experience collapsing or audible whumphs, avoid any nearby avalanche terrain. **This interface was involved in two fatal avalanche incidents in the Snoqualmie Pass area 2/25.**

Deep Persistent Slab avalanches are unlikely and difficult to trigger, but are also very difficult to predict. You would likely not survive a Deep Persistent Slab avalanche that releases to the 2/13 layer. Stay safe by avoiding triggering smaller avalanches in the surface snow and staying off the previously mentioned steep slopes.

Wind Slabs are trending toward unlikely, but may still exist in isolated areas especially above treeline where there have been few recent observations. Generally avoid areas of recently drifted snow, deeply pillowed features, and fresh cornices on slopes 35 degrees and steeper. These areas may exist well below ridge-lines.

Small loose wet avalanches are possible on Wednesday on steep solar slopes and below treeline but will not be listed due to more dangerous avalanche problems. Avoid steep sunny slopes near terrain traps if the surface snow becomes moist and watch for signs of natural pinwheeling and rollerballing as a clear signal to change aspects.

Avalanche Summary

Only small loose wet avalanches were reported Tuesday on steep sunny aspects. The last snowfall was 3-6" of low density snow that accumulated Sunday through early Monday morning, with an anomaly of around 12" in the Snoqualmie Pass area. The previous snow surface consisted of sun crusts on solar aspects and several feet of settled powder from last week in sheltered terrain. Several sun crusts can be found on solar slopes within the upper snowpack. Widespread surface hoar was reported in the Stevens Pass area early in the weekend. The most recent storm with significant snow and wind ended Thursday morning 3/1. The most recent human triggered wind slab avalanches were observed on Mt. Baker Saturday.

On E-S-W aspects, a thin breakable sun crust 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. This layer has not yet had significant time to heal. It is found 1-3 feet below the surface on steeper slopes that have received direct sun during the past week. Snow profiles and snowpack tests can confirm the presence of this layer; however they are not good for proving its absences. That said, the crust has not been found in near treeline terrain and is more likely to be found at lower elevations in the below treeline band. Several other crusts exist within the upper snowpack on slopes that received direct sunshine.

Some observations from last week suggest other persistent grains at this same 2/23 interface on shaded slopes. Buried surface hoar and large preserved stellars were reported in avalanches and snowpack tests at this interface about one week ago.

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 6 feet below the snow surface and just above a very firm melt-freeze crust (2/8). In the southern Cascades, recent observations suggest it may be easier to trigger avalanches on the 2/13 facets near the Crystal Mountain area compared to terrain near the Paradise side of Mount Rainier where the layer is considerably deeper.

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

Observations

North

On Saturday, an NWAC professional observed two large wind slab avalanches several feet deep triggered by snowmobilers on the Easton Glacier around 6000'.

On Saturday, an avalanche professional in the Bagley Lakes area noted recent wind transported snow in the near treeline zone, but no skier triggered avalanches on that wind-affected snow. On east aspects, the 2/8 crust was down 60 inches or more and facet crystals above this layer were rounding. No other significant layers were present on this aspect.

Central

An avalanche professional in the Skyline area of Stevens Pass Saturday through Monday found the 2/23 facet/crust interface on south aspects becoming less reactive in snowpack tests. However, the 2/13 layer continued to show the potential for an avalanche to fail and propagate on this layer on most aspects.

Several pertinent observations were reported Saturday on our observations page, including an avalanche professional that observed a loose wet avalanche step down and trigger a deeper avalanche on an east aspect of [Jim Hill near Stevens Pass](#) that potentially ran on the 2/23 facet/crust interface.

On Saturday, NWAC professional Observer Jeremy Allyn was in the Mt. Snoqualmie area where he observed a right-side-up density profile to the 2/8 crust down 5' (150 cm) on a SW aspect at 5100 feet. No 2/23 crust was observed at this location. No new or recent avalanche activity was observed.

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

Stevens DOT reported two avalanches Wednesday morning 2/28. One failed on the 2/23 interface on a NE aspect. The weak layer appeared to be buried surface hoar. An avalanche from earlier in the week was larger and suspected of failing on the 2/13 facet/crust combination. This is the most recent avalanche report we have on the 2/13 PWL from the West Slopes of the Cascades.

South

On Thursday 3/1, Forecaster Dallas Glass reported natural slab avalanches in wind-loaded terrain near treeline in the Crystal backcountry. Dallas reported snowpack tests showing potential for triggering avalanches on crust/facet combinations in the upper snowpack as well as up to 3 feet down on the older faceted 2/13 layer.

Mountain Weather Synopsis for Wednesday & Thursday

Upper level ridging over the area will lead to one more dry day in the Pacific Northwest, however high clouds streaming up from the south will quickly create high overcast conditions for all areas by late morning to mid-day. Cold temperatures seen early this morning along the east slopes of the Cascades will rise with the rest of the area this afternoon. A low pressure system off the northern California coast will track northeast later tonight spreading very light rain and snow over the area with the initial frontal band. The air mass over our region is quite dry, so this first wave of moisture will do little other than bring cloud ceilings and snow levels down overnight. After a lull in the early morning, the real action should get started by late Thursday morning as the low pressure system tracks to north of the Olympic Peninsula and into southern B.C by early evening. Winds will ramp up quickly, especially in the alpine ahead of the frontal boundary that will pass through the Cascades late Thursday afternoon. The Olympics and the central and south Washington Cascades should see stormy conditions develop Thursday afternoon. Easterly flow through the Cascade Passes will initially keep snow levels suppressed through early afternoon, but snow levels should rise to the 3500-4000 feet by early afternoon with a bump to 4000-4500 in the late afternoon and early evening. Behind the front, post-frontal showers, windy conditions and a cooling trend should ensue Thursday night as the trailing longwave trough approaches the coastline. There may be a period of heavy showers at Mt. Baker Thursday evening.

Precipitation Forecast			Snow/Freezing Level (ft)									
Location	Thu	Fri	Day	Hurricane Ridge	Mt. Washington	Stevens Pass	Snoqualmie Pass	Crystal Mt.	Mt. Hood	Easterly Flow in the Cascade Passes		
Hurricane Ridge	lt .10	.50 - .75	Wednesday Afternoon	7500'	6500'	6000'	None'	None'	7000'	None'	8000'	
Mt Baker Ski Area	lt .10	1.50 - 2.00	Wednesday Night	4500'	4000'	2500'	None'	None'	3000'	None'	5000'	*
Washington Pass	lt .10	.75	Thursday Morning	4000'	3500'	3000'	None'	None'	3000'	None'	5000'	*
Stevens Pass	lt .10	.75 - 1.00	Thursday Afternoon	4500'	4000'	4000'	None'	None'	4000'	None'	5500'	*
Snoqualmie Pass	lt .10	1.00 - 1.50	Thursday Evening	4500'	4000'	4000'	None'	None'	4500'	None'	5000'	
Mission Ridge	lt .10	.25	Thursday Night	2500'	2500'	3500'	None'	None'	3000'	None'	4000'	
Crystal Mt	lt .10	1.00										
Paradise	lt .10	1.50 - 2.00										
White Pass	lt .10	1.00										
Mt Hood Meadows	lt .10	1.00										
Timberline	lt .10	1.00 - 1.50										

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.

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.