



Northwest
Avalanche
Center



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East Slopes North - Canadian Border to Lake Chelan

Issued: 6:00 PM PST Friday, January 6, 2017 by Kenny Kramer

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.

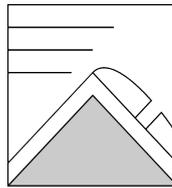
The Bottom Line: Lingering wind slabs are likely to persist, especially near and above treeline. Watch for wind deposited snow and avoid travel on or near likely trigger points such as areas with a shallower snowpack or above unsupported terrain features.

Elevation	Saturday	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	Low Generally safe, watch for unstable snow on isolated terrain features.	Moderate

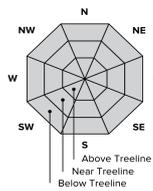
Avalanche Problems for Saturday

Wind Slab

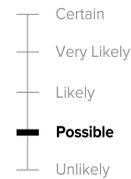
Wind slabs can take up to a week to stabilize. They are confined to lee and cross-loaded terrain features and can be avoided by sticking to sheltered or wind scoured areas.



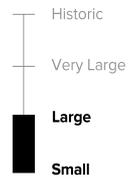
Avalanche
Problem



Aspect/Elevation



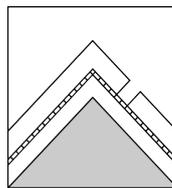
Likelihood



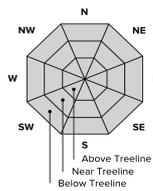
Size

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.



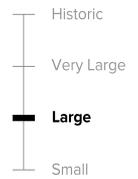
Avalanche
Problem



Aspect/Elevation



Likelihood



Size

Snowpack Analysis

Weather and Snowpack

A low pressure system moved across western Washington on Saturday night, followed by cold Arctic air. NWAC stations along the east slopes picked up about 4 inches of snowfall by Sunday morning with west winds.

An unusual reverse orographic, moist east flow caused significant snowfall along the east slopes of the central to south Cascades Sunday afternoon and night. NWAC stations along the east slopes received 1-3 feet of snow on Monday morning with the most snow recorded from Blewett Pass to Mission Ridge.

Fair cold weather with east winds were seen on Monday and Tuesday. Fair and cold weather continued Wednesday with easterlies moderate at Pass level and strong NE winds near ridgetops and above treeline seen at the Washington Pass and Mission Ridge stations.

Sunny weather continued Thursday and Friday with slightly warmer temperatures. Crest level winds shifted from moderate easterly Thursday morning to light to moderate westerly by Thursday evening. Winds were generally light Friday.

Recent Observations

Tom Curtis was out at Mt. Lillian Friday, 12/30 and found reactive wind slabs along ridges with shooting cracks and whumping on north aspects near 5900 feet. The wind slab was likely collapsing down to the 12/17 PWL about 25-35 cm down. Wind slabs were found on NW-E-SE aspects with some wind loading apparent well below treeline.

Ski tourers in the Washington Pass area Saturday 12/31 reported no results from hand shears in the near and below treeline bands and no avalanches while avoiding possible wind loaded terrain above treeline. Nice, low cohesion surface snow conditions were reported below treeline.

On Sunday 1/1 reports from multiple snow pits by Mission Ridge patrol testing the basal facet layer, now indicate a much stronger more settled snowpack from a week ago. The basal facets remain intact, but show signs of rounding and overall consolidation and bonding.

The NCMG at the hairpin at Washington Pass on New Years Day found that new snow was causing loose dry avalanches on steep terrain. While north winds were quickly forming touchy wind slabs.

The Mission Ridge ski patrol had their hands full with about 34 inches of new snow and strong northeast winds on Monday morning. It was not possible for them to visit lee S-W slopes were likely new, deep wind slab was expected.

The NCMG was out again at the hairpin at Washington Pass on Monday and found 20-25 cm of storm snow and no significant signs of instability.

There was a solo skier who triggered, was caught and killed in a slide in the Crystal Mountain backcountry. The avalanche likely occurred Wednesday, 1/4 and was discovered Thursday. [Initial report here:](#)

Detailed Avalanche Forecast for Saturday

Becoming cloudy Saturday with occasional very light snow, mainly during the afternoon. Only light amounts of new snow are expected through the day Saturday, if any. Winds should be mostly southerly and light.

Moderate to locally strong E-NE winds Tuesday night and Wednesday have loaded unusual aspects and built wind slab in all elevation bands. These wind slabs continue to heal and bond, but the cold temperatures are slowing that process.

Watch for lingering wind slabs and avoid terrain where even a small slab avalanche could have unintended consequences. Remember to watch for firmer wind transported snow on all slope aspects or cross loaded slopes, especially in areas with varied terrain and modified wind directions. .

Along all of the east slopes the 12/17 PWL persistent slab problem is gaining strength, has become more deeply buried and less sensitive in snowpack tests. However, continue to avoid large open terrain in areas where an overall shallow snowpack exists like the Mission Ridge/Blewett Pass area or where you find this layer in snow pits, especially if you experience direct observations such as whumping or shooting cracks.

Mountain Weather Synopsis for Saturday & Sunday

An upper and surface low pressure system will linger about 500 miles off the Northwest coast on Saturday and Sunday. This will cause slightly increasing south to southwest flow over the Northwest - a change from the cold north flow seen over the Northwest the past week. So the Arctic air mass that has been over the Northwest will start to get eroded this weekend and snow levels will go up though it will be hard to predict how fast along the Cascade crest. A weak warm front will rotate around the low and south to north over the Northwest Saturday afternoon and night. This will cause light to moderate snow to move south to north over the Olympics and Cascades, which should be heaviest on the central and southern volcanoes. A moderate warm front will rotate around the low and south to north over the Northwest on Sunday. This should cause renewed heavier snow to move south to north over the Olympics and Cascades which should initially be heaviest on the central and southern volcanoes. A temporary change to west winds, a better shot of snow and more of a bump in snow levels should make it into the passes Sunday evening.

24 Hour Quantitative Precipitation ending at 4 am

Location	Sun	Mon
Hurricane Ridge	.25	.25 - .50
Mt Baker Ski Area	.25	.75
Washington Pass	lt .25	.50
Stevens Pass	lt .25	.50 - .75
Snoqualmie Pass	lt .25	.75
Mission Ridge	lt .25	.50
Crystal Mt	.25	.50
Paradise	.50	1.00
White Pass	.25	.50
Mt Hood Meadows	.50	1.00
Timberline	.50	1.00

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 Level/Freezing Level in feet

Day	Northwest Northeast Central South					Easterly Flow in Passes
	Olympics	Cascades	Cascades	Cascades	Cascades	
Saturday Morning	500'	0'	0'	0'	0'	*
Saturday Afternoon	1000'	0'	0'	0'	0'	*
Saturday Night	1500'	500'	0'	500'	1000'	*
Sunday Morning	2000'	1500'	0'	1000'	1500'	*
Sunday Afternoon	2500'	2000'	500'	1500'	2500'	*
Sunday Evening	2000'	2000'	1000'	2000'	3000'	
Sunday Night	1500'	1500'	1000'	1000'	2000'	

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.

* Note that surface snow levels are common near the passes during easterly pass flow and may result in multiple snow / freezing levels.