



Mt Hood

Issued: 11:16 AM PST Friday, December 23, 2016 by Garth Ferber

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.

Storm slab added to Northwest Cascades zone 1120 am Friday.

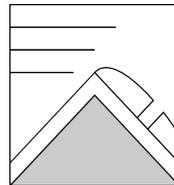
The Bottom Line: Recent or new wind slab and new storm slab is expected to be the main avalanche problem on Friday. These layers could be more reactive where they build over a hard smooth crust.

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	Moderate	Heightened avalanche conditions on specific terrain features. Evaluate snow and terrain carefully; identify problem features.	Moderate

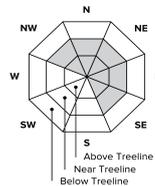
Avalanche Problems for Saturday

Wind Slab

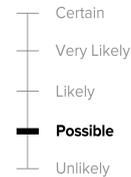
Wind slabs can take up to a week to stabilize. They are confined to lee and cross-loaded terrain features and can be avoided by sticking to sheltered or wind scoured areas.



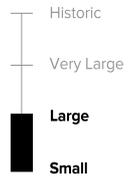
Avalanche Problem



Aspect/Elevation



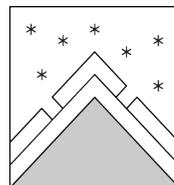
Likelihood



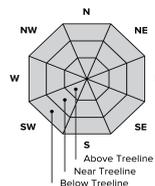
Size

Storm Slabs

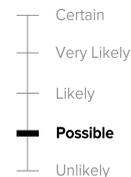
Storm slabs usually stabilize within a few days, and release at or below the trigger point. They exist throughout the terrain, and can be avoided by waiting for the storm snow to stabilize.



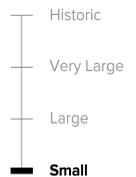
Avalanche Problem



Aspect/Elevation



Likelihood



Size

Snowpack Analysis

Weather and Snowpack

Clear and cold weather from Wednesday, December 14th to Friday, December 17th allowed widespread surface hoar and near surface faceted snow to develop in the Cascades. Thin sun crusts formed on steeper solar slopes during sunny periods.

However PWLs likely have not survived at Mt. Hood due to the copious water amounts received over this latest storm cycle. Strong westerly flow directed two Pacific frontal systems into the PNW Sunday night and again Monday night with generally 3 inches of water accumulating at Mt. Hood NWAC stations through early Tuesday morning.

Unfortunately, much of the heavy precipitation fell in liquid form with rain likely reaching up to about 7000 feet late Monday night and Tuesday morning.

A sharp cooling trend followed mid-day Tuesday with about 2 inches of snow in post-frontal showers. A strengthening rain crust was noted near and below treeline by late in the day Tuesday with the arrival of colder air.

Cold and clear weather overnight Tuesday and early Wednesday helped strengthen surface or near surface crusts up to at least 7000 feet.

Recent Observations

The Mt Hood Meadows pro-patrol on Tuesday morning reported that the snowpack BTL appeared to be handling the heavy rain remarkably well with little natural or human avalanche activity observed. However, by late Tuesday afternoon and after some partial clearing, debris from a very large wind slab avalanche was observed above treeline on a ENE aspect at 7500 feet. This R4.5 - D3 avalanche likely occurred Monday night and cleared out two start zones running roughly 1500 feet vertical. From a distance, the crown was estimated to be several feet thick!

Reports from the Mt Hood Meadows pro-patrol Wednesday, reported a significantly different snowpack following the rain, avalanches and cooling. A stout surface crust was found on all elevations up to at least 7200 feet. On exposed terrain, the crust was very supportable while in treed terrain the crust ranged from breakable to supportable.

A report via the NWAC Observations - Recent Observations tab for the Cooper Spur area on Wednesday indicated a thick surface crust that likely presented an out of control fall danger in the ATL. Local reactive wind slab to 1 foot deep was reported in the NTL.

Detailed Avalanche Forecast for Saturday

A weak front will move across the Northwest Cascades late Thursday. This should cause southwest winds and a cooling trend. Snowfall should be pretty light except with 5-10 inches looking likely in the Mt Baker area. By Friday a large digging trough offshore should cause much lighter winds and but with renewed snow mainly over the south Cascades with low snow levels.

Wind slab should be the primary problem Friday. Southwest winds in the last storm cycle and for the late Thursday system make this most likely on north to southeast slopes. Watch for firmer wind transported snow mainly north to southeast slopes. New or recent wind slab could also be more reactive where it builds over a hard smooth crust.

Several inches or more of new snow make new storm slab possible at Mt Hood on Friday. Watch for new storm slab in areas that experience rapidly accumulating snow deeper than a few inches. New storm slab could also be more reactive where it builds over a hard smooth crust.

The surface crust formed in some areas following the storms early this week is reported to be strong and hard enough to present an out of control fall danger. Avoid steep hard slopes where there will be fall consequences if you are not confident you can manage this problem by walking or using ski or boot crampons.

Mountain Weather Synopsis for Saturday & Sunday

A longwave trough axis is centered over the West Coast this morning. Light snow that had rotated up from the south Friday out ahead of the trough, generally produced 2-4 inches of new snow throughout the Olympics and Cascades, except locally up to 9 inches for Mt. Baker. As the trough slowly passes through today, scattered snow showers should mostly be confined to the west slopes. Most areas will see a partial clearing trend this afternoon, except with clouds staying banked up mainly against the west slopes of the central and south Washington Cascades. Christmas Day looks mostly sunny and cold. An upper ridge will move over the PNW on Monday providing us with a dry day with fairly light winds. An incoming Pacific frontal system will spread high clouds over the area Sunday night but precipitation should hold off until Monday.

24 Hour Quantitative Precipitation ending at 4 am

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

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	Snow Level/Freezing Level in feet					Easterly Flow in Passes
	Olympics	Northwest Cascades	Northeast Cascades	Central Cascades	South Cascades	
Saturday	1000'	500'	0'	500'	1000'	
Saturday Night - Sunday Night	1000'	0'	0'	0'	500'	

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.