



Northwest
Avalanche
Center



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Mt Hood

Issued: 8:23 PM 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.

Sorry for the delay in issuing this forecast. There was a lot of information to process and many significant changes from previous forecasts.

Minor change to the Olympics zone 830 pm Friday.

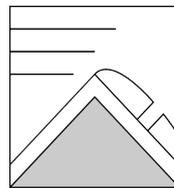
The Bottom Line: Wind slab should be possible mainly in the ATL on Saturday due to recent west winds. Avoid steep hard slopes where there will be fall consequences if you are not confident you can manage this problem by walking or using ski or boot crampons.

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	Low	Generally safe, watch for unstable snow on isolated terrain features.	Low
Below Treeline	Low	Generally safe, watch for unstable snow on isolated terrain features.	Low

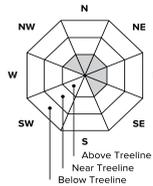
Avalanche Problems for Saturday

Wind Slab

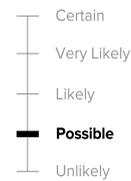
Wind slabs can take up to a week to stabilize. They are confined to lee and cross-loaded terrain features and can be avoided by sticking to sheltered or wind scoured areas.



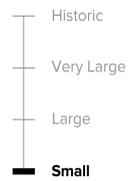
Avalanche Problem



Aspect/Elevation



Likelihood



Size

Snowpack Analysis

Weather and Snowpack

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 NWAC stations at Mt Hood 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.

A fair day was seen on Wednesday.

Another front crossed the Northwest on Thursday followed by an upper trough on Friday. This has only caused about 5 inches of snow at NWAC stations at Mt Hood. West winds seen Thursday and Friday should become light by Friday night with a cooling trend Friday.

Recent Observations

Reports from the Mt Hood Meadows pro-patrol Wednesday reported a significantly different snowpack following 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.

The Mt Hood Meadows pro-patrol on Friday afternoon only reported shallow unconsolidated new snow on the thick crust up though they only went up to 6600 feet. Windy conditions were reported above 6600 feet.

Detailed Avalanche Forecast for Saturday

An upper trough will exit the Northwest on Saturday and high pressure will begin to build offshore. Light snow showers mainly along the west slopes Saturday morning should give way to partial clearing Saturday afternoon with light west to northwest winds and cool temperatures.

Wind slab should be possible mainly in the ATL on Saturday due to recent west winds. Watch for firmer wind transported snow mainly on northwest to southeast slopes. These layers could be more reactive where they build over a hard smooth crust.

The surface crust formed following the storms early this week is 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.