



Northwest
Avalanche
Center



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Mt Hood

Issued: 6:13 PM PST Saturday, December 24, 2016 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.

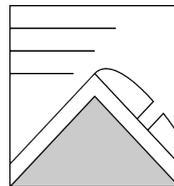
The Bottom Line: Wind slab should be possible mainly above treeline on Sunday due to recent west-northwest winds. Watch for firmer wind transported snow mainly on northwest to southeast slopes. These layers could be more reactive where they build over a hard smooth crust. The surface crust formed last week is strong and hard enough to present an out of control fall danger.

Elevation	Sunday		Outlook for Monday
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

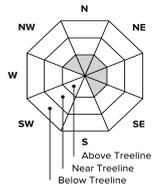
Avalanche Problems for Sunday

Wind Slab

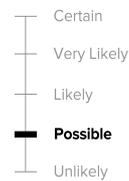
Wind slabs can take up to a week to stabilize. They are confined to lee and cross-loaded terrain features and can be avoided by sticking to sheltered or wind scoured areas.



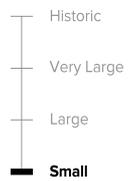
Avalanche Problem



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 (12/18-12/19) 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 at least 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.

NW winds near and above treeline were moderate at Mt. Hood Friday night through mid-day Saturday.

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 above treeline. Local reactive wind slab to 1 foot deep was reported in the near treeline.

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

Detailed Avalanche Forecast for Sunday

Christmas should be cold and mostly sunny with generally light winds across the Cascade range including Mt. Hood.

Wind slab should be possible mainly above treeline on Sunday due to recent west-northwest 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 last week is strong and hard enough to present an out of control fall danger. Avoid steep slopes where the slide for life hazard is present.

Mountain Weather Synopsis for Sunday & Monday

A shortwave ridge moving over the PNW will provide us with some fine weather on Christmas Day. Freezing levels will be low but at least skies will be mostly clear with light winds. The fair weather will not last long as a strong westerly jet once again becomes squarely aimed at Washington Monday night. High clouds should increase overnight and through Monday morning as moisture begins to stream into the region. Cloud ceilings should lower quickly Monday afternoon with light rain and snow spreading south from the Olympics and north Cascades. Alpine winds will also ramp up quickly Monday afternoon, so expect reduced visibility late in the day if above treeline. The bulk of precipitation from the incoming frontal system will move in Monday night. A slight warming trend should take place overnight out ahead of and with the frontal passage for the Olympics and west slopes of the Cascades with snow levels peaking around 3000 feet after midnight through the early morning hours of Tuesday for the central Cascades including Snoqualmie Pass and 3500 feet for the south Washington Cascades including Crystal, Paradise and White Pass. Heavy precipitation will hold off until after midnight for Mt. Hood as the front slowly sags south.

24 Hour Quantitative Precipitation ending at 4 am

Location	Mon	Tue
Hurricane Ridge	0	.50 - .75
Mt Baker Ski Area	0	1.00 - 1.50
Washington Pass	0	.75
Stevens Pass	0	1.00
Snoqualmie Pass	0	1.00 - 1.50
Mission Ridge	0	.25 - .50
Crystal Mt	0	.75
Paradise	0	1.50
White Pass	0	.75
Mt Hood Meadows	0	.50 - .75
Timberline	0	.75

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	
Sunday - Sunday Night	1000'	500'	500'	500'	1000'	
Monday Morning	2000'	500'	500'	1000'	1500'	*
Monday Afternoon - Monday Evening	3000'	1500'	500'	1500'	2000'	*
Monday Night	4000'	2500'	2000'	3000'	4500'	*

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.