



Mt Hood

Issued: 7:16 PM PST Wednesday, December 6, 2017

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.

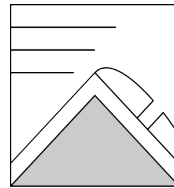
The Bottom Line: Thursday is a day to pay close attention to the weather and snowpack conditions as they evolve due to a high degree of variability and an unusual December warm-up impacting an evolving, but settling snowpack. Watch for small areas of firmer, wind-transported snow on isolated, lee terrain features. Watch for loose-wet snow avalanches releasing from sun exposed rock faces or below cliffs or rock bands.

Elevation	Thursday		Outlook for Friday
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.	Low
Below Treeline	Moderate	Heightened avalanche conditions on specific terrain features. Evaluate snow and terrain carefully; identify problem features.	Low

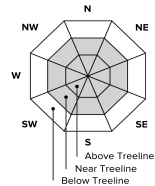
Avalanche Problems for Thursday

Wind Slab

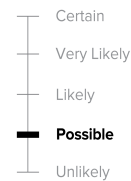
Wind slabs can take up to a week to stabilize. They are confined to lee and cross-loaded terrain features and can be avoided by sticking to sheltered or wind scoured areas.



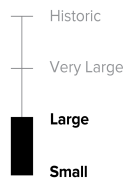
Avalanche Problem



Aspect/Elevation



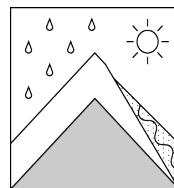
Likelihood



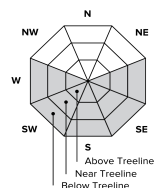
Size

Loose Wet

Loose wet avalanches occur where water is running through the snowpack, and release at or below the trigger point. Avoid terrain traps such as cliffs, gullies, or tree wells. Exit avalanche terrain when you see pinwheels, roller balls, a slushy surface, or during rain-on-snow events.



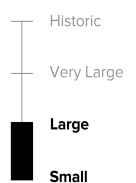
Avalanche Problem



Aspect/Elevation



Likelihood



Size

Snowpack Analysis

A series of frontal systems from post-Thanksgiving through the first weekend in December produced significant snowfall in the Mt. Hood area. There are no snowpack concerns below the Thanksgiving crust and in general new snow received post-Thanksgiving has reportedly bonded well.

A series of frontal systems produced snow over the week following Thanksgiving: NWAC stations at Mt. Hood received 20-23" of snow.

The active weather pattern was replaced with a high pressure system which brought plenty of sunshine and initially cold temperatures Sunday-Monday, followed by a significant warming trend from Monday through Wednesday. Generally northeasterly winds in the 10's and 20's with gusts to 30+ mph at Mt. Hood sites have kept this region from seeing as much warming as sites west of the Cascade crest in the Washington Cascades and temperatures topped out on Wednesday in the upper 30's at many Mt. Hood NWAC stations. The graphs below illustrate the warming trend and low-level surface-pressure-driven winds.

Observations

On Monday, Patrol at Hood Meadows saw evidence of a natural wind slab that released after dark Sunday.

Natural wind slab release sometime Sunday night, 12/3. ESE facing wind loaded slope about 6600 feet. Photo: Brian Murphy

Detailed Avalanche Forecast for Thursday

Continued sunny and mild weather is expected Thursday with crest level easterly winds decreasing significantly overnight and becoming light SW Thursday afternoon. The winds will slacken overnight and shift to southeast and eventually to a gradually increasing SW wind on Thursday. Generally decreasing ESE wind speeds on Thursday, combined with increased warming aloft, will allow temperatures in the Mt. Hood zone to top out 10 degrees or so warmer than today and approach 50F in many locations.

Expect a high degree of variability depending on aspect and degree of warming from location to location. Expect fresh wind slab size and sensitivity to vary considerably near and above treeline in the Mt. Hood area, but to generally be found on westerly aspects. Warming throughout the day should help older wind slabs continue to stabilize, but fresher recent wind slabs have been forming and will need another day or two of warm temperatures to stabilize. A general decreasing danger is expected as relenting winds and warm temperatures mitigate further wind transport and wind slab formation. Stubborn wind slab may exist in specific locations near and above treeline.

In all areas, watch for small loose wet avalanches on steep sun exposed terrain releasing during the late morning or afternoon, especially on unsupported slopes or near rocks and where loose wet avalanches might carry you into terrain traps or other hazards such as trees or low-snow hazards. Loose wet avalanches are expected to become larger as warming continues and winds slacken throughout the day.

Early season terrain hazards still exist, such as poorly covered rocks, vegetation and creeks, particularly at lower elevations.

Mountain Weather Synopsis for Thursday & Friday

The story of the week continues Thursday with a major, high amplitude upper ridge over the Northwest. The axis of the ridge extends from south BC to north California. This will cause weak flow, fair weather and inversion conditions warm at higher elevations on Thursday. For example temperatures are in the 50's at NWAC stations at Hurricane, Mt Baker and Paradise on Thursday. Meanwhile offshore surface flow and the inversion conditions are causing east winds in the Cascade passes, and local low clouds and cool temperatures at the surface especially in the passes and east of the crest. Little change will be seen Friday with the axis of the upper ridge shifting slightly to the east but still basically extending from south BC to north California. Some minor high moisture moving over the ridge should bring some high clouds and there will be a slight lowering of the high freezing levels. East winds may slightly decrease in the Cascade passes.

24 Hour Quantitative Precipitation ending at 4 am

Location	Fri	Sat
Hurricane Ridge	0	0
Mt Baker Ski Area	0	0
Washington Pass	0	0
Stevens Pass	0	0
Snoqualmie Pass	0	0
Mission Ridge	0	0
Crystal Mt	0	0
Paradise	0	0
White Pass	0	0
Mt Hood Meadows	0	0
Timberline	0	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	Northwest Northeast Central South				Easterly Flow in Passes
	Olympics	Cascades	Cascades	Cascades	
Thursday Afternoon	12000'	12000'	12000'	12000'	*
Thursday Night	11500'	11500'	11500'	12000'	*
Friday Morning	10500'	11000'	11500'	11500'	*
Friday Afternoon	10500'	10500'	11000'	11000'	*
Friday Night	10000'	10000'	10500'	11000'	*

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.