

Olympics

Issued: 6:20 PM PST Thursday, December 29, 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.

A solo skier was killed in triggered 8-10 inch x 200 yard wide slab avalanche in the back country at White Pass on Tuesday, December 27th. The accident was near the pass level on a run locally called the Grand Couloir and apparently due to a terrain trap into which the victim was carried and where avalanche debris was deeper. The White Pass Ski Patrol and the NWAC will compile an accident report and make it available on the NWAC web site as soon as the report is completed.

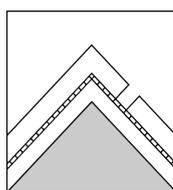
The Bottom Line: The 12/17 persistent slab remains the main avalanche problem in the Hurricane Ridge area. Continue to avoid steeper slopes of consequence especially in less skied areas at Hurricane Ridge. Also, treat wind loaded slopes in all elevation bands with caution on Friday.

Elevation	Friday		Outlook for Saturday
 Above Treeline	 Considerable	Dangerous avalanche conditions. Careful snowpack evaluation, cautious route-finding and conservative decision-making essential.	 Considerable
 Near Treeline	 Considerable	Dangerous avalanche conditions. Careful snowpack evaluation, cautious route-finding and conservative decision-making essential.	 Considerable
 Below Treeline	 Considerable	Dangerous avalanche conditions. Careful snowpack evaluation, cautious route-finding and conservative decision-making essential.	 Considerable

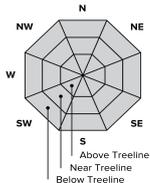
Avalanche Problems for Friday

Persistent Slab

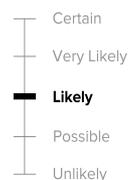
Persistent slabs can be triggered by light loads and weeks after the last storm. You can trigger them remotely and they often propagate across and beyond terrain features that would otherwise confine wind and storm slabs. Give yourself a wide safety buffer to handle the uncertainty.



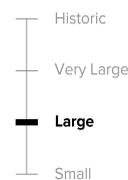
Avalanche
Problem



Aspect/Elevation



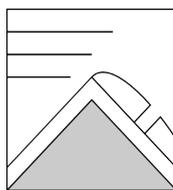
Likelihood



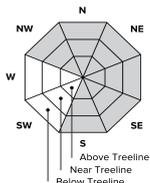
Size

Wind Slab

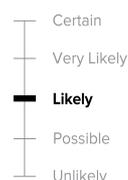
Wind slabs can take up to a week to stabilize. They are confined to lee and cross-loaded terrain features and can be avoided by sticking to sheltered or wind scoured areas.



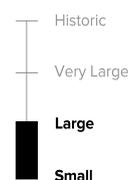
Avalanche
Problem



Aspect/Elevation



Likelihood



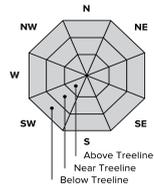
Size

Storm Slabs

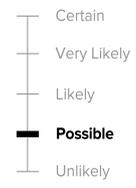
Storm slabs usually stabilize within a few days, and release at or below the trigger point. They exist throughout the terrain, and can be avoided by waiting for the storm snow to stabilize.



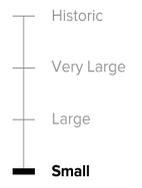
**Avalanche
Problem**



Aspect/Elevation



Likelihood



Size

Snowpack Analysis

Weather and Snowpack

A strong front and strong west flow aloft was seen over the Olympics and Cascades on Monday and Tuesday. The NWAC station indicated strong south to southwest winds Monday and Tuesday with almost 2 feet of new snow for the 48 hours ending Wednesday morning with a cooling trend.

A warm front caused moderate to strong winds and periods of light to moderate snow Thursday with about half an inch of water through 6 pm Thursday at the Hurricane Ridge station. New snow initially fell during a warming trend with moderate S-SW winds but stormy conditions were subsiding behind the front Thursday evening.

Recent Observations

NWAC pro-observer, Matt Schonwald was at Hurricane Ridge on Wednesday and reported the 12/17 PWL is still causing collapsing on all aspects especially in less skied areas below ridge lines. Recent natural wind slab releases of 10-12 inches were also seen on N-NE slopes off ridges at about 6000 feet. A 2-4 foot x 150 foot wide wind slab crown on the convex north slope below the visitor overlook was seen which may have released on a buried surface hoar layer from around Christmas Eve.

Detailed Avalanche Forecast for Friday

A strong but quick moving front will bring a period of strong winds along with precipitation Thursday afternoon and evening. Winds and shower intensity should quickly taper down on Thursday night with a clearing trend expected along with cool temperatures on Friday.

The 12/17 persistent slab remains the main avalanche problem in the Hurricane Ridge area. Recent loading may make this layer more sensitive to triggering. Remember that persistent weak layers are generally involved in larger avalanches. Continue to avoid steeper slopes of consequence especially in less skied areas at Hurricane Ridge.

Wind slab should be the secondary avalanche problem due to a period of moderate to strong westerly winds Thursday that may have loaded leeward aspects further downslope than usual. Treat wind loaded slopes in all elevation bands with caution on Friday.

Storm slabs are expected to be the most reactive and likely to trigger Thursday night during peak warming and storm intensity. However, sensitive storm slabs may linger and be found in wind sheltered terrain Friday. More snow is expected from Snoqualmie Pass and north to Mt. Baker with this storm and the avalanche danger will be rated higher to account for the additional expected snowfall.

Mountain Weather Synopsis for Friday & Saturday

A quick moving frontal system in strong westerly flow produced about 10-12 inches of snow along the north and central Cascades of Washington. Less snow was seen in the Olympics, the south Washington Cascades, Mt. Hood and below about 4000 feet for the central Cascades due to a period of rain Thursday evening. A convergence zone that formed downwind of Vancouver Island in NW flow overnight is beginning to peter out as the flow aloft turns more northerly. A longwave trough axis oriented E-W over Washington Friday morning will slide south later this morning with weak ridging building into British Columbia. The PNW should see a drying trend with a healthy dose of sunshine and steady cold temperatures expected this afternoon. A quick moving system upstream in NW flow will slide toward the area on Saturday, spreading light snowfall over the Olympics and north and central Cascades by early afternoon. A light to moderate shot of snowfall should come Saturday night as the front quickly sweeps south and a cold upper trough begins to dig off the Washington coast.

24 Hour Quantitative Precipitation ending at 4 am

Location	Sat	Sun
Hurricane Ridge	lt .10	.25 - .50
Mt Baker Ski Area	lt .10	.25 - .50
Washington Pass	lt .10	.25
Stevens Pass	lt .25	.50
Snoqualmie Pass	lt .25	.50 - .75
Mission Ridge	0	lt .25
Crystal Mt	lt .10	.25
Paradise	lt .10	.25 - .50
White Pass	lt .10	.25
Mt Hood Meadows	lt .10	.50
Timberline	lt .10	.50 - .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	
Friday - Saturday Morning	1500'	1500'	500'	1000'	2000'	
Saturday Mid-day	2500'	1000'	500'	1000'	4000'	
Saturday Afternoon	1500'	1000'	500'	1500'	1500'	
Saturday Night	0'	0'	0'	0'	1000'	

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.