



# East Slopes South - South of I-90 to Columbia River

Issued: 8:06 AM PST Sunday, February 4, 2018

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.

**8 AM Update: Changed Wet Slab Avalanches to Wind Slab Avalanches Above Treeline in Mt. Baker Zone (West Slopes North)**

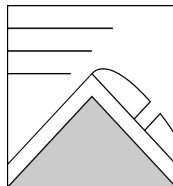
**The Bottom Line:** Stormy conditions and a rising snowline will increase the avalanche danger on Sunday. Fresh wind slabs will be increasing in size and sensitivity above treeline. Loose wet avalanches will become more likely to trigger in areas and elevations that see a switch from snow to rain Sunday. Avoid slopes where small avalanches may have large consequences such as above cliffs, rocks, creeks, and gullies.

Elevation	Sunday		Outlook for Monday
Above Treeline	Considerable	Dangerous avalanche conditions. Careful snowpack evaluation, cautious route-finding and conservative decision-making essential.	Considerable
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

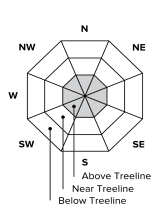
## Avalanche Problems for Sunday

### 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.



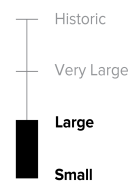
Avalanche Problem



Aspect/Elevation



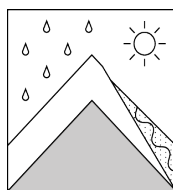
Likelihood



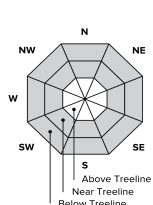
Size

### 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.



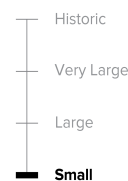
Avalanche Problem



Aspect/Elevation



Likelihood



Size

## Avalanche Forecast for Sunday

Light to occasionally moderate precipitation near the Cascade crest, increasing crest level west winds, and a rising snow line will increase the avalanche danger on Sunday at all elevations.

Loose wet avalanches will become more likely to trigger in areas and elevations that see a switch from snow to rain Sunday. You will be able to trigger loose wet avalanches on steeper slopes during and immediately following rain events. Avoid slopes where small avalanches may have large consequences such as above cliffs, rocks, creeks, and gullies.

Moderate to strong winds will continue to form fresh wind slabs on a variety of aspects above treeline. Fresh cornices, snow drifts, plumes, and blowing snow all indicate where wind slabs are forming. Fresh wind slabs will be increasing in size and sensitivity Sunday.

Large cornices exist along ridgelines. Warming temperatures and rain will make these massive blocks of snow more likely to fail. It is very difficult to predict when and where cornices will fall. Avoid traveling on or below cornices.

The avalanche hazard will be lower in areas receiving less precipitation further east of the crest.

## Avalanche Summary

Moderate to strong westerly winds at crest level mixed warm temperatures down to valley floor along the east slopes of the Cascades on Saturday, with valley or lower elevation sites such as Lake Wentachee, Tumwater and Mazama popping up to near or above 50 degrees. The freezing level hovered around 5500 feet in the northeast Cascades, increasing to 6000-7000 feet further south and east. Light precipitation noted near the Cascade crest quickly diminished further east. Wet snow conditions were noted near and below treeline along the Hwy 20 corridor. Continued snowpack settlement was also noted in these elevation bands at NWAC and Snotel sites.

8" of new snow was reported in the Washington Pass area Friday while for areas south of Holden, rain fell up to about 6000 feet. Very touchy wind slabs formed and developed in the Washington Pass area Friday and again Saturday near and especially above treeline.

A natural avalanche cycle has been reported in many areas from Monday's (1/29) warm and wet weather. Rain occurred along the east slopes as far north as Holden, WA.

Scattered observations from the last week of January found buried surface hoar on top of the 1/16 crust. This persistent weak layer was found or thought to be the cause of several avalanches. Extra caution should be taken when traveling in areas further east of the crest where this layer may survive. Snow profiles and snowpack tests are the only means to identify and locate this layer.

### Observations

#### North

On Saturday, a professional in the Washington Pass area reported about 6" of new snowfall over the preceding 24 hours. Very touchy wind slabs were present near and especially above treeline with moderate to strong W-SW winds transporting new and recent snow onto lee slopes. Storm slabs were generally unlikely to trigger. Moist surface snow conditions were present below 5800'. The 1/16 crust was 4 to 5 feet down. Similar conditions were reported Friday in this area.

#### Central

An avalanche professional traveling in Icicle Creek Thursday found 6-8" of settled snow well bonded to the 1/29 crust. Observations demonstrated a strong upper snowpack. No buried surface hoar was found in this location.

On Tuesday, Mission Ridge Pro Patrol identified several layers of concern in this regionally shallower snowpack. These layers should be watched during future loading events. Similar basal weak layers were found in the nearby shallow snowpack of Blewett Pass.

#### South

No recent observations

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## Mountain Weather Synopsis for Sunday & Monday

Moisture continues to stream into the region in NW flow aloft, riding up and over a stationary upper level ridge parked offshore. Moderate to occasionally heavy rain seen along the west slopes of the Cascades today has come to an end as a weak frontal boundary passed through the area earlier this afternoon, changing steady rain to showers with intensities lowering and beginning to usher in somewhat cooler air. The north Cascades on both sides of the crest were again the relatively local cool spot in this rainy pattern, with snow levels peaking around 6000 feet today. Moderate to strong westerly winds will continue in most locations and elevations in this pattern. Snow levels will gradually fall overnight and settle between 3500-4500 feet on Monday. Showers should continue in W-NW flow, again mainly for the west slopes of the Cascades, with new snowfall accumulations expected above 4000 feet for Snoqualmie Pass to Mt. Baker. A weak upper level feature may enhance shower activity in the north Cascades on Monday. NW flow will keep plenty of moisture and clouds banked up along the west slopes of the Cascades Monday and Monday night. The ridge will amplify offshore on Monday and begin to slide back towards the PNW Monday night, helping to decrease shower activity.

**24 Hour Quantitative Precipitation ending at 4 am**

Location	Mon	Tue
Hurricane Ridge	.25	lt .10
Mt Baker Ski Area	2.00	.50
Washington Pass	.75	lt .25
Stevens Pass	2.00	.50 - .75
Snoqualmie Pass	2.00	.50 - .75
Mission Ridge	lt .10	lt .10
Crystal Mt	.25	lt .10
Paradise	1.50 - 2.00	lt .25
White Pass	.50 - .75	lt .10
Mt Hood Meadows	.50 - .75	lt .10
Timberline	.50 - .75	lt .10

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 Afternoon	7000'	6000'	6000'	6500'	7500'	
Sunday Evening	6000'	5000'	5500'	5500'	7000'	
Sunday Night	4500'	4000'	4500'	4500'	5500'	
Monday	4000'	4000'	4000'	3500'	4500'	
Monday Night	3500'	3000'	3000'	3000'	4000'	

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.

**USE AT YOUR OWN RISK**

This Backcountry Avalanche Forecast is provided in conjunction with the US Forest Service, and is intended for personal and recreational purposes only. Safe backcountry travel requires preparation and planning, and this information may be used for planning purposes but does not provide all the information necessary for backcountry travel. Advanced avalanche education is strongly encouraged.

The user acknowledges that it is impossible to accurately predict natural events such as avalanches in every instance, and the accuracy or reliability of the data provided here is not guaranteed in any way. This forecast describes general avalanche conditions and local variations will always occur. This forecast expires 24 hours after the posted time unless noted otherwise.