

# Lane Peak, Fly Couloir Avalanche

2/25/2017

NWAC Report by Jeremy Allyn and Dennis D'Amico

## Incident snapshot:

**Occurrence Time and Date:** 1234 pm, February 25, 2017

**Lat/Lon:** 46.7581, -121.7531 (estimated, not directly observed)

**Location:** Lane Peak, Fly Couloir, Mount Rainier National Park, Pierce Co., WA State

**Number in Party:** 6 (separate parties of 4 and 2)

**Number Caught:** 5

**Number Partially Buried, not-critical:** (*not-critical means the head was exposed, critical means the head was buried*): 4

**Number Completely Buried:** 1

**Duration of Burial:** 1 minute

**Number Injured:** 2 with minor injuries requiring first aid

**Number Killed:** 0

**Avalanche Type:** Loose (Loose Dry estimated)

**Trigger:** Natural

**Size:** D2, (Relative to Path Unknown)

**Start Zone Aspect:** NNE (estimated, not directly observed)

**Start Zone Angle:** 40+ deg average (estimated, not directly observed)

**Start Zone Elevation:** 5800-5900 feet (estimated, not directly observed)

**Vertical Fall:** 700-800 feet (estimated, not directly observed)

**Burial involved a terrain trap:** Couloir

**Avalanche occurred during:** Ascent

**Location of group in relation to start zone during avalanche:** Below

**Avalanche Safety Gear Carried:** All carried transceiver, shovel, probe

**Avalanche Training and Experience at Activity:** Ski party had some-advanced level training and advanced-expert experience. Climbing party had some avalanche training and intermediate experience.

**Signs of Instability Noted by Group:** Active sluffing and small loose dry (natural) while in couloir

**Injuries Sustained:** Scraps and cuts (skier and climber), 1 mild or moderate concussion, crampon puncture in one leg (climber)

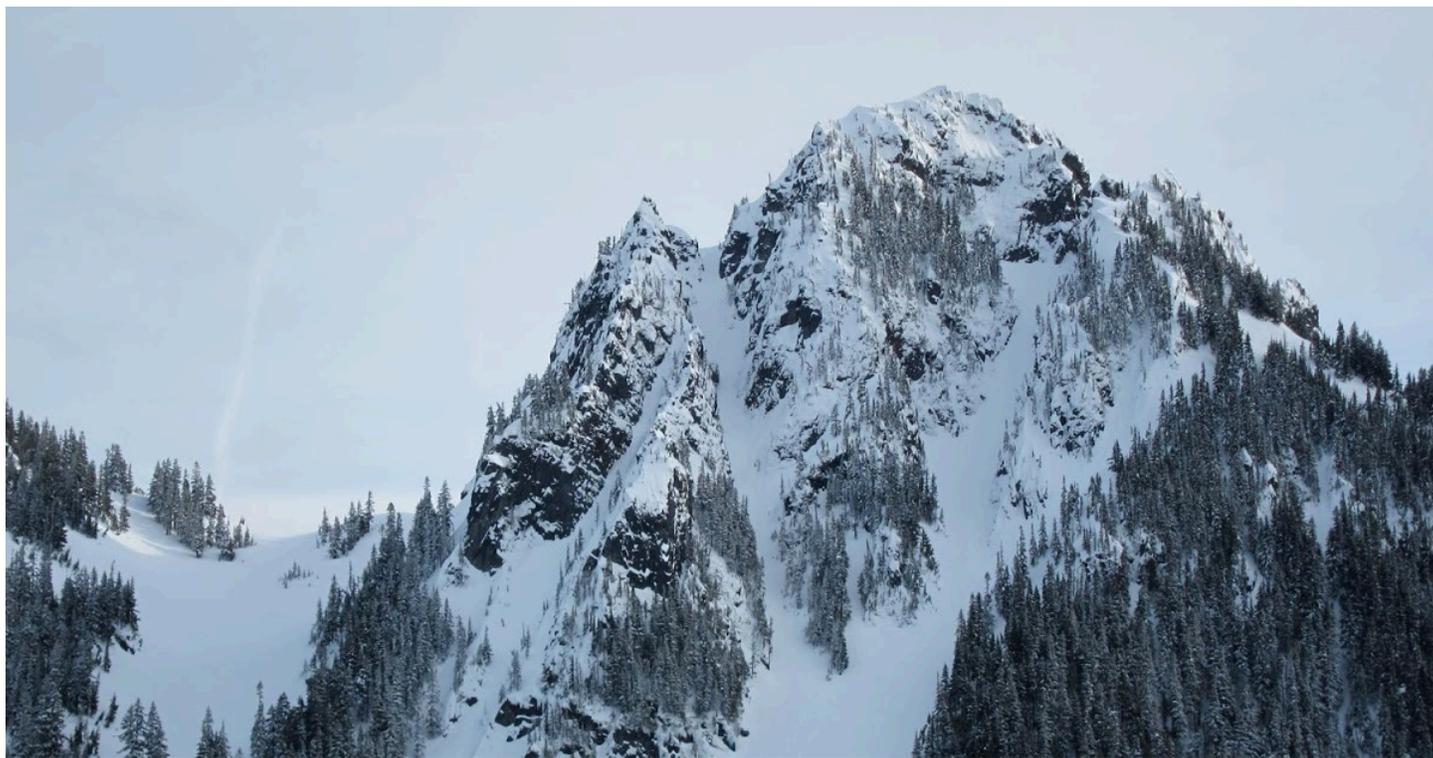
**Rescue Method:** Self Rescue (all)

**Damage:** \$800 (Broken or lost ski gear, camera in skier group)

**NWAC Forecast Zone:** Cascade West - South

**Avalanche Danger Rating (Near and Above Tree-line):** Moderate

NWAC extends special thanks to all members of the reporting parties (especially Matt T, Jake, Marko and Ron) for their willingness to share their experiences, as well as for providing photos and extensive written reports which NWAC quotes from substantially.



Lane Peak Couloirs (L-R): Lover's Lane, Zipper, Fly.

*Web archive: Todd Kilcup*

### **Accident Summary including narrative**

At approximately 945 am on Saturday, February 25, 2017, a party of 4 skiers set out from the Narada Falls parking lot with the goal of skiing both the Zipper and Fly Couloirs on Lane Peak (6012 feet). Lane is a small peak in the western part of the Tatoosh Range, a prominent subrange of Mt. Rainier located on Park's southern boundary. Given its good winter access, Lane's north aspect has become increasingly popular for steep climbing and skiing in the last few decades. In total, there were 13 climbers and skiers on 3 distinct routes on Feb. 25th: 4 climbing Lovers Lane, 3 skiing both the Zipper and Fly Couloirs, and the 2 separate parties (for a total of 6) in the Fly Couloir who were involved in the incident outlined in this report.

Narrative and photos by Matt Tiedemann: "As we gained the meadow below Lane Peak, we saw tracks indicating a party previously (likely one day before) had access the area from further east, and

had skied towards the Zipper. We skinned up the apron of Lane Peak on its western flank, and regrouped at a safe zone within and below tree cover, right at the point the Fly and Zipper merge. We noticed the tracks from the group that had skied the Zipper a day(s?) prior, and the remnants of a snow test pit. We donned helmets, and discussed a plan for Subject 2 to venture into the Fly to check conditions, with our preference to ski that couloir, as it was untracked. Subjects 1, 3 and 4 waited at the safe zone for further word. Subject 2 reported that conditions seemed stable and right side up [Quick tests performed: skin test, hand shear, pole probe] and directed the rest of the group to follow, with all subjects still traveling via skinning. Up to this point, the group had noted that the weather was cloudier than forecasted, with a thick cloud deck notable above Paradise and winds creating colder conditions than anticipated. Limited light flurries were also observed.”

“The group continued skinning for ~15 minutes until the pitch steepened so as to make skinning prohibitive. The group gathered on climber’s right of the couloir and transitioned to booting. Bringing up the rear, Subject 1 noted to the group that there were at least one, if not two parties (with at least a group of 3) below us with unknown intent. We discussed ideal spacing and traveling from one protected micro-safe zone to another, but also commented that such areas appeared limited. A quick discussion yielded the conclusion that conditions appeared fine to continue despite this fact, and the best risk mitigation was to move quickly and efficiently. Subject 2 continued to lead the way and booted up first. After ~10 minutes, Subject 1 transitioned to leading.”

“Shortly thereafter the snow got notably deeper and travel became more difficult. The pace of leading slowed, and the group ended up closer together. Around this time, our group also noticed a party of two below us, appearing to be climbers on foot (Subjects 5 & 6). While Subject 1 continued to slowly lead, winds appeared stronger above us than forecasted or anticipated. This fact was noted by multiple people in the group, but not actively discussed. Spindrift became more and more prevalent. At one point, a nearby spindrift/snow release from above created a small sluff (an inch or so deep) that ran into the party. Subject 1, leading, stated, “that’s at least a yellow or orange flag.” The group paused only momentarily to discuss, but decide that the sluff didn’t seem problematic enough to stop, but if the loose snow releases got any worse the plan would be reassessed.”



*Entering the Fly Couloir.*

“As the deep trail breaking continued, the group remained bunched up, failing to re-space. ~5-10 minutes after the initial small sluff, the loose dry avalanche hit the group. Someone in the group noticed an incoming sluff and yelled “Sluff!” The group braced and took the initial wave without incident. Immediately after a second wave followed. Subject 1 looked up after the initial wave, immediately saw an incoming wall of snow, and was slammed into and swept away before being able to react. The loose dry slide caught all Subjects but #2, who escaped by being just 2-3 feet to the left of the rest of the group. After group discussions and examination of photos, GPS tracks, and the best recollections the group can assemble, the Subjects involved were positioned before the slide as shown in the following photo.”



*Subject 1 low in the boot pack. Numbers indicate location of all 6 when they were caught by the avalanche.*

“Subjects 1, 3 and 4 all reported being submerged at one point during the slide. Based on best available recollection, all caught Subjects (1, 3, 4, 5 & 6) likely hit one another during the slide. Skis were ripped from Subjects 1, 3 and 4’s packs. Subjects 1 and 4 recall the slide slowing/stopping and being completely buried for a brief moment, followed by being mobilized again and thankfully regaining the surface/near-surface. As the slide came to rest, everyone was at least partially buried, with Subject 1 being fully under the snow surface. However, everyone was able to self-rescue and extract. The following photo shows the position of the group after the slide.”



“The moments following the slide were frantic, yet search protocols were quickly enacted. As everyone self-rescued and began to get their wits about them, various yells were made to get all beacons into search mode. Simultaneously, a head count was conducted. Simply taking count of who was and wasn’t present was a difficult process given the Subjects’ various levels of shock. Everyone confirmed their identity and well-being, and got their beacons to search mode. It was discovered that Subjects 1, 3, and 4 of the skiing party were accounted for, along with Subjects 5 and 6 of the climbing party, leaving Subject 2’s location unknown.”

“Separately, Subject 2 had escaped the slide and discovered they were now alone. Fearing what that meant, Subject 2 debated the fastest way down and if they should put on skis, but decided to walk downhill as quickly as possible.”

“Downhill, just as anxious and fearful attention was being directed to a full out beacon search for Subject 2, Subject 2 emerged around the corner of the couloir and made contact. The following photos by Subject 6 show these moments. Note continued spindrift visible in the second photo.”



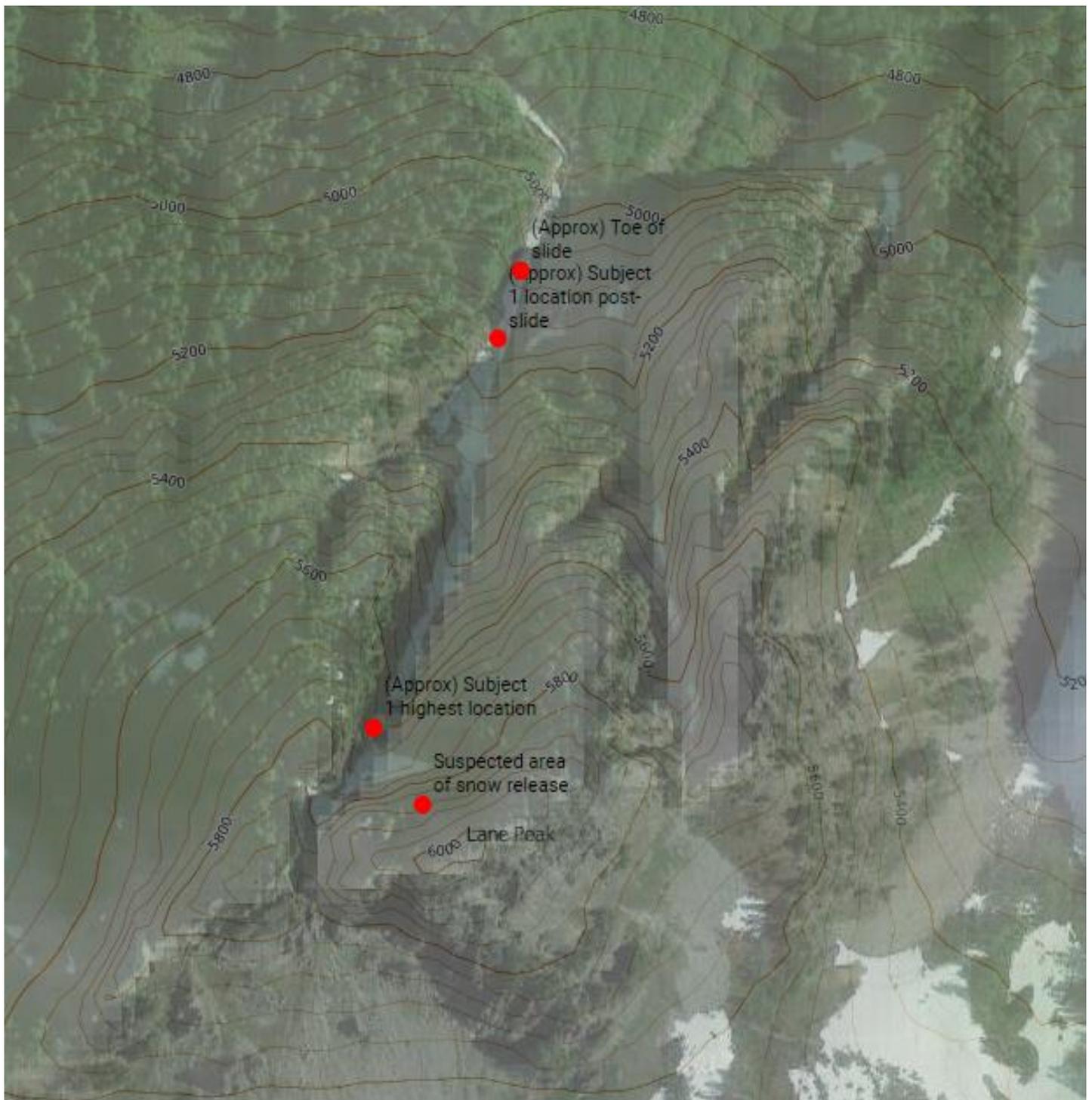
“Subject 6 had sustained some minor cuts and was bleeding, but confirmed they were okay. Subjects 5 and 6 quickly gathered themselves and moved downhill to the island of safety between the Fly and Zipper. There was no further contact between the skiing party and Subjects 5 and 6 until the parking lot. With everyone accounted for and without injuries requiring immediately attention, the skiing party made an effort to quickly find missing skis and gear. While searching, an additional (but smaller) loose dry slide came down on the group, covering some gear and causing one of Subject 1’s skis slide downhill out of view. Fearing additional slides, the search for gear was hastened, hoping to at least find skis in order to skin back to the car. The following photo (taken by Subject 5) shows the gear search process.”





*Lower section of debris.*

“Luckily most skis were quickly found and retrieved, and Subjects 1-4 moved to the island of safety. Everyone in the group gathered themselves and a plan was made to get back to the car safely. The group skied down the apron one by one. On the descent, the single track of Subject 1’s missing ski was discovered and followed, and the ski was discovered next to a large tree it had collided with. While bent and broken, Subject 1 was able to use it for the rest of the descent and skin back to the car. Subjects 1-4 skinned back to the Narada Falls parking lot without incident.”



As mentioned earlier in this report, a party of 3 skiers were ascending and descending the Zipper while this incident was unfolding in the Fly. While in the Zipper this party encountered the team of 4 who were topping out on Lover's Lane. The two parties communicated successfully, allowing the skiers to finish their descent before the climbers began their rappels. The ski of the Zipper went without incident and the party of 3 made their way over to the Fly after observing that it was clear of the previous parties.

Jake wrote, "There were absolutely no conditions of concern in the Zipper. Snow was stable. The

wind was light. There was only minor spindrift. The Fly was a bit different. There was a steady pouring of spindrift of the wall on climbers left. We had one decent plume come down and cover the boot track, but it did not move any of us down hill. At the time, it appeared as more of nuisance than a danger. The wind was fairly constant and gusty at times. Overall there was more to assess in the Fly and more moving pieces due to the wind, plume, and spindrift, but none of it made us overly nervous. There was zero evidence of the slide that took out the 5 climbers before us. The snow in the Fly looked exactly like the snow in the Zipper: unconsolidated measuring from the knee to the waist.”

About 90% of the previous boot track was reported as covered up by the time the group of 3 got into the Fly. One of the party of 3 (reported to be much more fit and motivated to summit) reached the top of the couloir, while the other two turned around in the vicinity of #1 in the photo above. Fatigue and the time of day (330pm) were mentioned as primary factors in this decision. All 3 descended without incident.

### NWAC Comments by Jeremy Allyn:

The consensus among reporting parties is that the avalanche originated from the hanging terrain climber’s left of the top of the Fly Couloir. This terrain – characterized by cliffs, steep trees and a bowl-like summit feature – most likely served to catch fresh wind deposit and was sufficiently steep to actively shed large amounts of loose snow. While no visuals were made of any crown, it is certainly possible that sluffing or wind could have triggered a small slab, which then entrained substantial amounts of loose snow giving the appearance of a large loose dry avalanche. This terrain is in the lee of prevailing winds and would have been prime for pockets of wind slab. In either case, this incident underscores how even small avalanches in steep terrain can have dire consequences. More importantly, it sheds light on how the terrain that is connected to you is often as important as than the terrain that you are in – especially when ascending alpine features from the bottom up.

Paradise telemetry indicated a marked increase in SW winds by noon on 2/25, with gusts exceeding 30mph by mid-afternoon. Adjusting for Lane’s position and exposure in the range (and verified by reporting parties), winds were most likely stronger than near Paradise and clearly served to activate the steep and loose surface conditions. The amount of sluffing and spindrift, as well as the smaller loose dry avalanches that both parties experienced, are noteworthy. Additionally, the amount of overhead hazard above the Fly compared to other terrain features on Lane is something that the reporting parties admit to have underestimated.

Given the steepness of the terrain and length of vertical fall of those who were caught and carried (some nearly 500 feet) it is remarkable that no one was seriously injured. The “efficient runout” of the couloir almost certainly served to limit burial depth. Had there been other types of terrain traps like gullies or cliffs, this avalanche would have very likely produced deeper burials.

A common thread between all reporting parties was that the snowpack was determined to be stable in the couloirs themselves, but what was happening in terrain connected to them did not alter their decision-making. As Jake understates: “The Fly was a bit different.” It’s worth noting here that critical

and relevant observations that pertain to loose dry avalanche problems are: loose surface snow >12” deep and ski/boot penetration >12” deep. Important considerations related to terrain exposure and steepness, overhead hazard, as well as direct weather affects such as wind and sun need to be made vigilantly when dealing with loose avalanche problems. And while not listed as a primary problem in the 2/25 NWAC forecast, Loose Dry avalanches were mentioned specifically as being triggered in the past week.

To a certain extent, all parties in the Fly tried to take into account one another. The climbing party discussed not wanting to be in the terrain when the 4 skiers were skiing down, therefore, they “focused on catching up” – this contributed to a trail-breaking bottleneck once snow conditions got deeper. The party of 3 who skied the Zipper decided to only ascend the Fly if it was clear of the previous parties. This turned out to be the case, but not for reasons immediately known to them. Some form of party-party voice or radio communication would have been particularly useful in this situation.

The complexity of this incident makes it an ideal case study for avalanche educators and backcountry recreationists. And while out of the scope of this incident report, NWAC believes that numerous lessons can be learned from reflection on the various heuristic traps present, patterns of behavior and type of terrain selection, and pressures related to increased popularity in ski mountaineering in the Pacific Northwest.

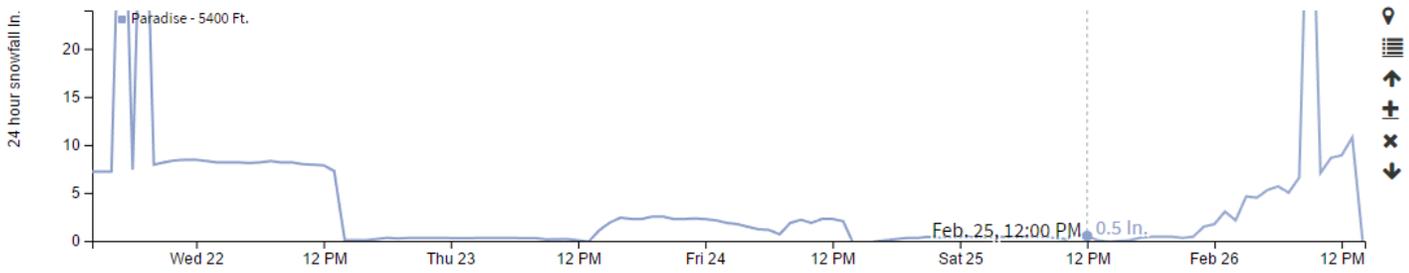
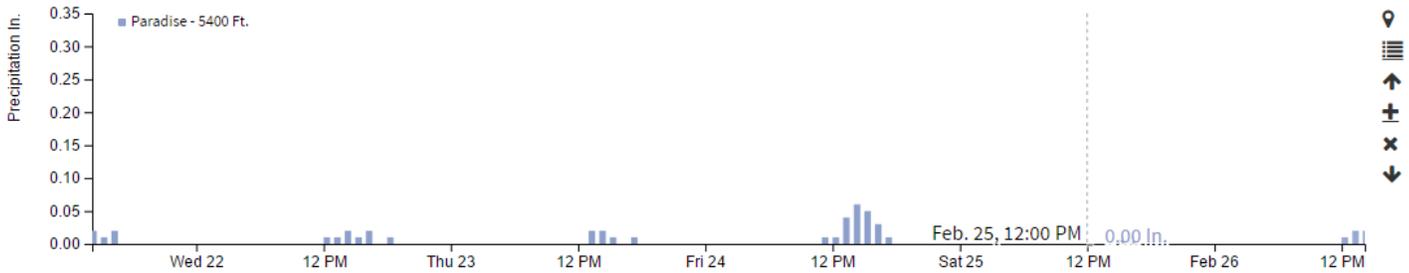
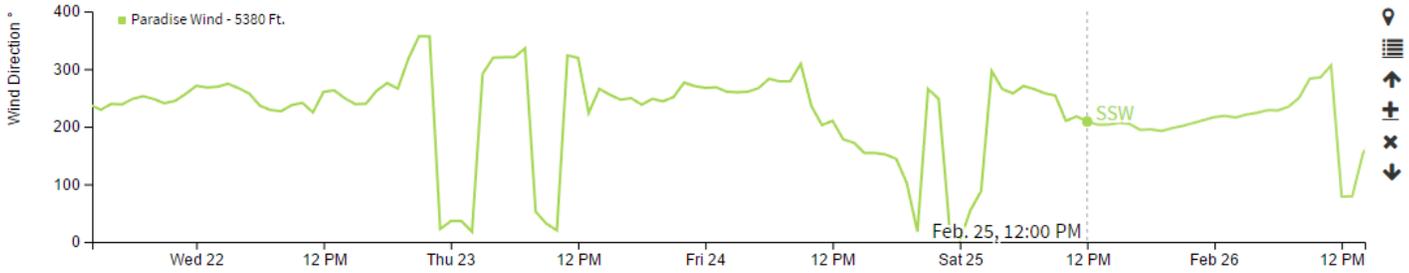
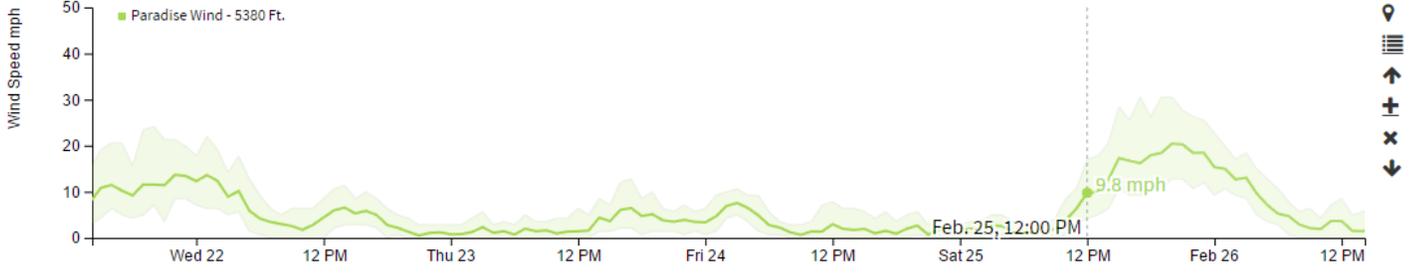
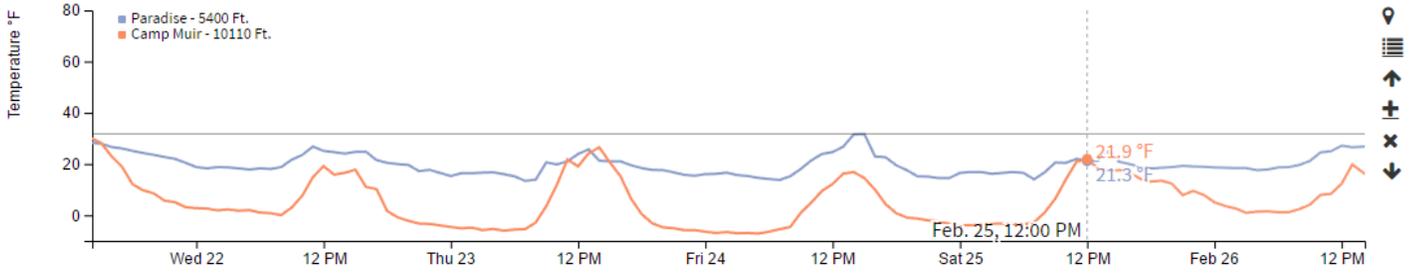
# Weather Stations List — Mt Rainier

Legacy Graphs

(select station) ▼

[Click here to bookmark your custom graph](#)

Save Graph





Northwest  
Avalanche  
Center



HIKE • BIKE • SKI  
ROSLYN, WA  
110 W. Pennsylvania Ave, Roslyn, WA

An adventure oriented bookstore and cafe featuring freshly prepared meals, craft cocktails, great wine and awesome brews. Open seven days a week.

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

Issued: 6:00 PM PST Friday, February 24, 2017 by Kenny Kramer

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.

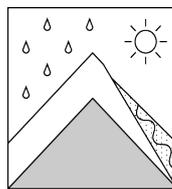
**The Bottom Line:** Sunshine Saturday may lead to shallow wet snow conditions on steep solar aspects during the late morning to afternoon. Watch for snow rollerballs, snow falling from trees, and for wet surface snow more than the top few inches. Watch for cornice hazard as well.

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	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

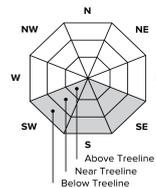
### Avalanche Problems for Saturday

#### Loose Wet

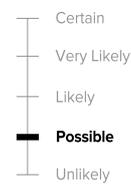
Loose wet avalanches occur where water is running through the snowpack, and release at or below the trigger point. Avoid terrain traps such as cliffs, gullies, or tree wells. Exit avalanche terrain when you see pinwheels, roller balls, a slushy surface, or during rain-on-snow events.



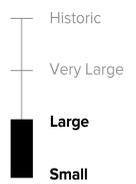
Avalanche Problem



Aspect/Elevation



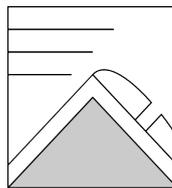
Likelihood



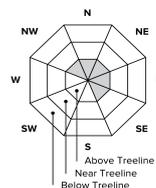
Size

#### 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.



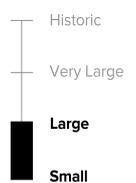
Avalanche Problem



Aspect/Elevation



Likelihood



Size

# Snowpack Analysis

## Weather and Snowpack

The latest of several warm, wet SW streams of moisture this season arrived on Valentines Day 2/14 bringing another round of heavy rain, avalanches, crusts and consolidation through Thursday 2/16 along the Cascade west slope zones. Minor new snow amounts were deposited at the tail end of the storm.

A short period of fair weather on Friday, 2/17 caused another surface crust, especially on solar aspects.

A pair of storms last Sunday and Monday deposited about a foot of snow at most areas by Monday. This was combined with periods of moderate to strong W-SW winds, forming wind slabs at the time.

A slightly unstable weather pattern this week caused a mix of sun and light snow showers with cold temperatures and light winds from Tuesday through Friday. The weather this week helped to freshen the surface with a few, up to several inches of snow. This weather has all tended towards increased snowpack stability through the week, while maintaining some excellent touring conditions, especially on shaded terrain.

## Recent Observations

### North

NWAC observer Lee Lazzara was in the Mt. Herman-Artist Point area Monday 2/20 and found 15 cm (6") of denser new snow poorly bonded to less dense snow from earlier in storm cycle. In wind loaded areas, the slab was up to 60 cm (2 ft) deep.

Lee was back out in the Heliotrope ridge area on Thursday 2/23 on mostly N-E aspects and no results from ski tests. He found some reactivity in ECT tests due to wind slab from Sunday 20-60 cm below the surface. He also reported some small triggered, loose dry avalanches.

### Central

On Tuesday 2/21, the Alpentel patrol reported widespread 6" storm slabs, occasionally up to 10" in isolated locations during control work with explosives. The slabs were soft and generally didn't run far. Shallow loose avalanches were becoming touchy by midday with a slight rise in temperatures even with cloudy skies.

A report for the Snoqualmie area for Wednesday 2/22 via the NWAC Observations page indicates pockets of 20 cm likely storm or wind slab on a steep S-NE slope above 4500 ft.

NWAC observer Jeremy Allyn was in the Snoqualmie Pass area on Thursday 2/23 and found old wind slab weaknesses at 30-40 cm but little in the way of avalanche problems.

### South

NWAC observer Ian Nicholson was at Paradise on Monday 2/20 and observed only minor wind transport of new snow. Ian also reported storm slab instabilities were a bit less touchy than in the Crystal area Monday.

Backcountry reports from professionals in the Crystal area on Tuesday 2/21 indicated less sensitive avalanche conditions overall, but storm instabilities were still reactive to ski triggering about 20 cm (8") down on steep slopes.

NWAC forecasters Garth and Dennis were in the East Peak area Wednesday 2/22 finding improved mainly right side up conditions. Storm layers were still producing moderate test results, but not indicating propagation. Cornice drops onto previously loaded east facing slopes did not give significant results. Wind slabs seemed confined to isolated nearby ridges.

NWAC observer Ian Nicholson was in the East Peak area on Thursday 2/23, he also found recent snow was generally right side up with good conditions and good bonding to the 2/14 crust. He noted small pockets of shallow potential 10-15 cm 1F wind slab.

## Detailed Avalanche Forecast for Saturday

A brief period of high pressure should build over the area Saturday. This will allow for clearing and plenty of sunshine Saturday. Winds should remain light with very cool temperatures.

Old wind slabs should continue to heal, becoming very isolated to specific terrain features, and very stubborn to human triggering Saturday.

More sunshine is expected Saturday than previously this week. Direct sunshine and some daytime warming should gradually increase the potential for loose wet avalanches Saturday, mainly confined to steep solar aspects during the warmest part of the day. Watch for wet surface snow deeper than a few inches if you find yourself on sun exposed slopes during any extended sun breaks.

Loose dry avalanches have been triggered this week, but will not be indicated as an avalanche problem. You can do tests for loose dry avalanches by pushing snow onto small safe test slopes.

Avoid areas along ridges where there may be a cornice and slopes below cornices, since cornices can fail at any time.

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## Mountain Weather Synopsis for Saturday & Sunday

Shortwave ridging moved over the Pacific Northwest earlier today for a period of fair weather. A fast moving low pressure system moving south in northerly flow aloft will drop over the area Saturday night. Clouds will increase during the day on Saturday, with high clouds increasing for all areas in the afternoon and low level clouds mainly increasing for the Olympics and north and central west slopes of the Cascades. Light pre-frontal showers in an area of convergence affecting Stevens and Snoqualmie Passes should continue through this afternoon. Otherwise, light snow showers will develop out ahead of low this evening and increase in intensity overnight, especially for the west slopes of the Cascades. As the low pressure system dips south off the Washington Coast on Sunday, showers will continue except for a partial clearing trend forecast over the north Cascades. Snow levels will stay relatively low throughout the short term. Cool NW flow will continue over the area Sunday night with shower activity becoming more scattered overnight.

24 Hour Quantitative Precipitation ending at 4 am			Snow Level/Freezing Level in feet						
Location	Sun	Mon	Day	Olympics	Northwest Cascades	Northeast Cascades	Central Cascades	South Cascades	Easterly Flow in Passes
Hurricane Ridge	.25	.25 - .50							
Mt Baker Ski Area	.25 - .50	lt .25	Saturday Night - Sunday Morning	1500'	500'	0'	500'	1000'	
Washington Pass	lt .10	lt .10	Sunday Afternoon	1500'	1500'	1500'	2000'	2000'	*
Stevens Pass	.25 - .50	.25 - .50	Sunday Night	0'	0'	0'	500'	500'	*
Snoqualmie Pass	.50	.50	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.						
Mission Ridge	lt .10	lt .25	* Note that surface snow levels are common near the passes during easterly pass flow and may result in multiple snow / freezing levels.						
Crystal Mt	lt .10	.50 - .75							
Paradise	.25 - .50	.75							
White Pass	lt .25	.50							
Mt Hood Meadows	lt .10	.50 - .75							
Timberline	lt .10	.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.



**American Avalanche Association  
Forest Service National Avalanche Center  
Avalanche Incident Report: Short Form**



**Occurrence Date** (YYYYMMDD): 20170225      and Time (HHMM): 1234      Comments: All avalanche start zone fields are estimated and were not directly observed

**Reporting Party Name and Address:** Matt Tiedemann

**Avalanche Characteristics:**

Type: L                                      Aspect: N-NE  
 Trigger: N                                    Slope Angle: 40+  
 Size: R \ D 2                                Elevation: 5850 m / ft  
 Sliding surface (check one):  
 In new    New/old    In old    Ground

**Location:**

State: WA County: Pierce Forest: Mount Rainier National Park  
 Peak, Mtn Pass, or Drainage: Lane Peak  
 Site Name: Fly Couloir  
 Lat/Lon or UTM: 46.75835, -121.75323

Group	Number of People	Time recovered	Duration of burial	Depth to Face <input type="checkbox"/> m / <input checked="" type="checkbox"/> ft
Caught	5			
Partially Buried— Not critical	4			
Partially Buried-- Critical				
Completely Buried	1		1 min	<1
Number of people injured: 2		Number of people killed: 0		

Dimensions <input type="checkbox"/> m / <input checked="" type="checkbox"/> ft		Average	Maximum
Height of Crown Face			
Width of Fracture			
Vertical Fall		700-800	
Snow	Hardness	Grain Type	Grain Size (mm)
Slab			
Weak Layer			
Bed Surface			
Thickness of weak layer:		<input type="checkbox"/> mm / <input type="checkbox"/> cm / <input type="checkbox"/> in	

Burial involved a terrain trap?  no  yes → type: Couloir  
 Number of people that crossed start zone before the avalanche: 0  
 Location of group in relation to start zone during avalanche:  high  middle  low  below  all  unknown  
 Avalanche occurred during  ascent  descent

Subject	Name	Age	Gender	Address	Phone	Activity
1	Matt Tiedemann	30	M	Seattle, WA		Skier
2	Breyden Holoubek	26	M	Plain, WA		Skier
3	Nathan Affolter	31	M	Seattle, WA		Skier
4	Kaeli Gockel	28	F	Seattle, WA		Skier
5	&6-Marko Pavela and Ron Holcomb	35 and 63	M			Climbers

**Equipment Carried**

1	2	3	4	5	
<input checked="" type="checkbox"/>	Transceiver				
<input checked="" type="checkbox"/>	Shovel				
<input checked="" type="checkbox"/>	Probe				
<input type="checkbox"/>					
<input type="checkbox"/>					

**Experience at Activity**

1	2	3	4	5	
<input type="checkbox"/>	Unknown				
<input type="checkbox"/>	Novice				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Intermediate
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Advanced
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Expert

**Avalanche Training**

1	2	3	4	5	
<input type="checkbox"/>	Unknown				
<input type="checkbox"/>	None				
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Some
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Advanced
<input type="checkbox"/>	Expert				

**Signs of Instability Noted by Group**

- Unknown
- None
- Recent avalanches
- Shooting cracks
- Collapse or whumphing
- Low test scores

**Injuries Sustained**

1	2	3	4	5	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	None
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	First Aid
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Doctor's care
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hospital Stay
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fatal

**Extent of Injuries or Cause of Death**

1	2	3	4	5	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Asphyxiation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Head Trauma
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Spinal Injury
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Chest Trauma
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Skeletal Fractures
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Other: Scraps and

cuts (skier and climber), 1 mild or moderate concussion, crampon puncture in one leg (climber)

**Damage** Number of Vehicles Caught:0 Number Structures Destroyed: 0 Estimated Loss: \$800 - ski gear, camera

**Accident Summary** Include: events leading to accident, group's familiarity with location, objectives, route, hazard evaluation, etc.  
Please see full report at: <http://www.nwac.us/accidents/accident-reports/>

**Rescue Summary** Include: description of initial search, report of accident, organized rescue, etc.

Please see full report at: <http://www.nwac.us/accidents/accident-reports/>

Rescue Method

1	2	3	4	5	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Self rescue
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Transceiver
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Spot probe
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Probe line
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Rescue dog
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Voice
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Object
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Digging
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Other:

**Attach additional pages as needed. Include weather history, snow profiles, reports from other agencies, diagram of site, photographs, and any other supporting information**

Please see full report at: <http://www.nwac.us/accidents/accident-reports/>

**Please send to: CAIC; 325 Broadway WS1; Boulder CO 80305; [caic@state.co.us](mailto:caic@state.co.us) and to the nearest Avalanche Center.**