

Incident Snapshot

Date: December 17st, 2015

Location: Alpental Valley, Snoqualmie Pass Area, Mt. Baker-Snoqualmie NF, Washington State

Number caught (separate slab avalanches): 2

Number fully buried: 1

Number partially buried: 1

Injuries: Minor (see narrative)

Rescue Method: Self rescue (both skiers)

NWAC Forecast Zone: Snoqualmie Pass

NWAC Avalanche Danger Rating in effect (near and above treeline): Considerable

Narrative

Minor editing for language, full version at: http://www.turns-all-year.com/skiing_snowboarding/trip_reports/index.php?topic=35132.0

Good morning

1Member
Offline

Posts: 3

December 17, 15 Avalanche: Big Trees and Spin Drift

« on: 12/20/15, 12:33 PM »

We usually take a moment to reflect on this question and the present snow conditions before we take any questionable line. Today we didn't think twice. We should have.

Snow was falling hard and swirling about. On the open slopes above source lake it felt stable enough; loose unconsolidated delicious powder on a dense layer that was well adhered to the bottom crust. NWAC described the day as considerable but rising. What we failed to consider was all that spin drift piling up in the concave region below the cliffs. We were slightly off our intended line, to skier's right of Big Trees below Pineapple Pass. There was plenty of tree anchoring. We were above two usually skiable cliff bands. I dropped the first one and cut right for maybe a turn or two. Then the ground gave way-that ugly feeling...

I think I was still upright and kind of skiing when a wave of snow hit me on the side of the face. Now I was full in. I tried to find bottom to arrest. No bottom. I tried to keep my limbs about me. I tried to stay upright, protect my head, swim, I can remember bouncing off things. I tried to keep my wits about me. I can remember slowing enough to steer towards some smaller trees. I hit one and grabbed hold. I remember fighting to keep my mouth clear and climb up as the snow washed over me. Another wave of snow hit me from behind. I remember taking as big of a breath as I could.

Then it was over. For a long moment my world was white and I hugged that tree.

My partner could see that as soon as I got below the cliff a 1.5 foot fracture propagated to the side and the whole slope failed. He saw me on top of the snow and struggling for a ways then I disappeared from his sight as I went over the second cliff band. He started descending the slide path. He went to take one turn around a small tree on a low angled section just off the slide surface and into undisturbed snow. As soon as he got on the soft snow it triggered right up to the cliff face, maybe 25 feet. That slid onto him and carried him slowly across the low angle section into some small trees, burying him to the waist and spraining his knee in the process. Had he been carried around the trees he might have followed my much longer and rougher path.

The snow was soft and I was able to push my way to the surface. I took a long breath, several breaths. Body check: ok enough. I was out of my foxhole and calling out. I had one ski, no hat or goggles, but both poles. I never ski with the straps on, but they helped me defend against some of the thing I bounced off. As my partner was digging himself out and trying to assess the damage to his knee we made visual contact. He waved. We were damn happy to see each other. From there it was a matter looking for gear and limping out. He skied one leg. I skied one ski. We were both happy nothing worse happened.

So today we were indeed idiots. Yes, we knew better, most people who get swept do. Thinking it though, I must have undercut all that spin drift piled up at the cliff base. It hit me like a breaking wave. I never got to see the fracture crown. It was over 200 yds and a cliff band above me. Fortunately, I think, I got flushed down a sideways runnel through the cliff. The lessons seemed to be a) we developed an assessment on the slopes we climbed that we unthinkingly carried over to the cliff bands- a totally different terrain setup. B) if you're above when it slides ski only the slide path. Venturing just a few feet off that surface, even on a low angle section, triggered a second slide that could have had dire consequences for both skiers. As it was the pole he lost ended up just 20 feet below where I stopped. We found my hat another 60 feet down from that. The slide ran for several hundred more feet.

My ski and goggles will probably melt out in the spring. If you happen to find a Coomback 189cm with older Dynafit STs and an iridium lens goggle, give me a call. I know the probability is low, but if you're up there, or anywhere, even if NWAC only says "CONSIDERABLE", do consider our little question. Consider all the variables.

See you in the bar.
Dave from W Seattle

Snoqualmie Pass

Issued: 6:53 PM PST Wednesday, December 16, 2015 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: Dangerous avalanche conditions are expected by Thursday afternoon. Reign in your objectives later in the day as snowfall and winds increase by avoiding steep and wind loaded slopes, watching for sensitive storm layers. Recent and newly wind loaded slopes in the near and above treeline zone should be found on a variety of aspects Thursday.

Elevation

Thursday

Outlook for Friday



Above Treeline



Considerable

Dangerous avalanche conditions. Careful snowpack evaluation, cautious route-finding and conservative decision-making essential.



High



Near Treeline



Considerable

Dangerous avalanche conditions. Careful snowpack evaluation, cautious route-finding and conservative decision-making essential.



Considerable



Below Treeline



Moderate

Heightened avalanche conditions on specific terrain features. Evaluate snow and terrain carefully; identify problem features.



Considerable

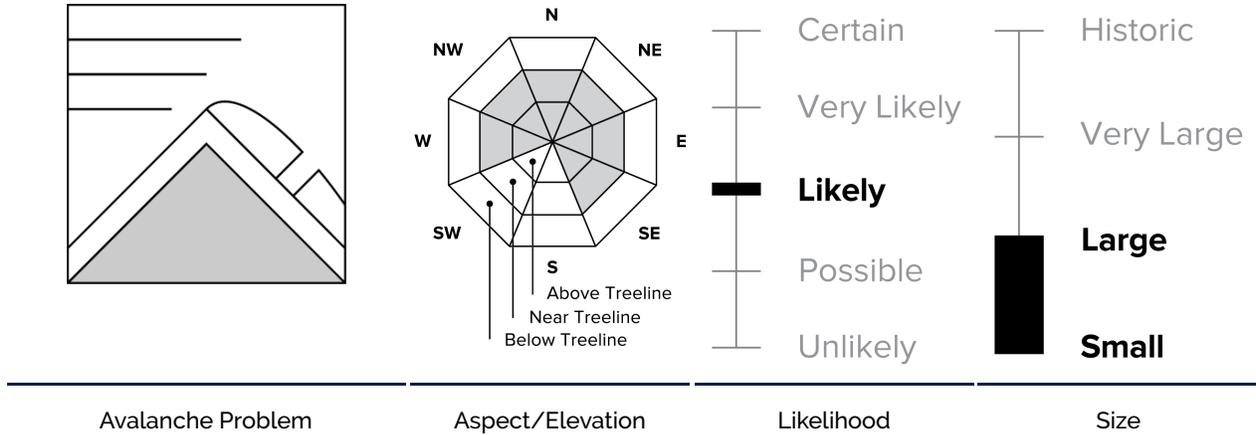
Danger Scale



Avalanche Problems for Thursday

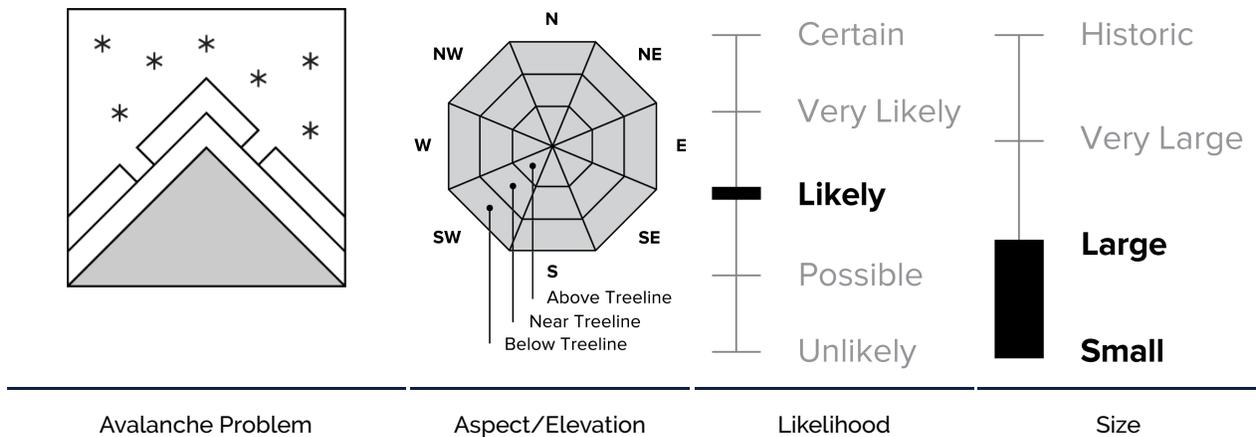
Wind Slab

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.



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.



Snowpack Analysis:

An atmospheric river around Dec 9th pushed heavy rain up to at least 6000 feet in the north Cascades and above 7000 feet in the south. Below these elevations water percolated down below the early December crust (date at which when the crust was buried) and is expected to have eliminated or subdued persistent weak layers formed mainly in late November in the Stevens and Snoqualmie area. An active and cool weather pattern over the last week has produced about 2 to 3 plus feet of new snowfall that now sits over the 12/9 crust. The below treeline zone snowdepth is filling in nicely but still contains many barely hidden hazards like rocks, streams or snags. The skiing in non-wind affected areas with enough snow cover has been good!

Last weekend, most avalanches released within storm layers, but a few released down to the recent rain crust. Storm instabilities have had time to heal and no new avalanches were reported Tuesday or Wednesday. The NWAC staff along with other Stevens Pass professionals had field training Monday and Tuesday in the Stevens Pass area and found a reactive graupel or stellar layer at 35-40 cm down but tests did not indicate propagation was likely. Moderate west-northwest winds in the above treeline zone along with light amounts of new snow received Tuesday night through Wednesday morning have likely redistributed recent and new snow onto lee easterly slopes in the near and above treeline zones.

Detailed Forecast for Thursday:

A frontal system on Thursday should bring light to moderate snowfall in the north Cascades and moderate to occasionally heavy snowfall in the south and central Cascades during the daylight hours. The south Washington Cascades, including locations like Crystal and Paradise should see a gradual warming trend Thursday afternoon while the north Cascades should see little change.

Avalanche problems will revolve around storm and wind slab. New and recent snow will be deposited on lee W through E aspects, although initially be wary of lingering wind slab on E-SE slopes from transport earlier in the week. Most avalanches should stay within the new storm snow, but a few may step down to older storm layers or crusts in isolated locations.

As snowfall and winds increase, avoid steeper slopes and watch for increasingly sensitive storm layers. Generally avoid wind loaded terrain in the near and above treeline zone with new snow being transported to a variety of aspects.

The storm related avalanche danger will increase further Thursday night into Friday morning.

Terrain anchors are still causing significant anchoring at the lowest elevations. Use caution near creeks which are still open in some areas.