

Avalanche Advisory for Friday, January 24, 2014

Expires tonight at 12:00 midnight

Tuckerman Ravine has Moderate and Low avalanche danger. The Sluice, Lip, Center Bowl, Chute, Left Gully and Hillman's Highway have Moderate danger. Natural avalanches are unlikely and human triggered avalanches are possible. All other forecast areas have Low avalanche danger. Natural and human triggered avalanches are unlikely **except in isolated terrain features**.

Huntington Ravine has Moderate and Low avalanche danger. Central, Pinnacle, Odell, South, and Escape Hatch have Moderate avalanche danger. Natural avalanches are unlikely and human triggered avalanches are possible. North, Damnation, and Yale gullies have Low avalanche danger. Natural and human triggered avalanches are unlikely **except in isolated terrain features**.

AVALANCHE PROBLEMS: Human triggered **Persistent Slabs** are the primary avalanche concern today. Continued cold conditions have allowed facets to grow above our hard old surface from January 11th, creating a weak layer beneath recently deposited wind slabs. Shooting cracks and/or hollow sounding slabs should raise the hackles for unstable slabs. Snow Rangers triggered an avalanche [yesterday](#) and as you know, recent avalanches can be a bullseye sign of further instability. **Cold clear conditions have continued the growth of facets overnight causing this weakness to increase our Persistent Slab problem.**

WEATHER: Currently summit temperatures are climbing from a low last night of -21F to an expected high of -10F later today. Winds from the NW, at a steady 30 mph, should shift to the W and gust to over 55 mph at some point this afternoon. Tonight and tomorrow we expect 2-4" of new snow with higher localized amounts with some squalls. This, associated with a strong building winds will cause additional avalanche problems. On Sunday, temperatures could be the coldest yet this season. Models have yet to come into alignment, but expect -20/-25F with hurricane force winds as a working assumption.

SNOWPACK: There is a complex and variable facet problem in the Ravines right now. As we pointed out yesterday, you should *"examine older deeper slabs for facet development that we are calling persistent"*. We'll try to line it out as clearly as possible.

Since the last rain event 2 weeks ago we have picked up about 15" (38cm) of snow that trickled in a little at a time. This was loaded in on a variety of aspects, then scoured and redistributed in others, with occasional high winds. As of several days ago this left us with a high amount of wind slab spatial variability. Cold air and three days of clear skies rapidly caused faceting to develop. This is the changing of crystals from rounds, into icy, square, weak sugar snow. Because the wide distribution of the previous wind slabs varied so much in depth we have seen grossly different temperature gradients. This has caused a mind numbing patchwork of facet development. We are currently the poster child for spatial variability! You will find facets in some places that are 2mm in size, stacked 7-10cm thick. This may be found near the surface within the old windslab under 15cm of pencil hard slab or 30cm down on top of the last rain crust. In some places it's 1-2mm in size under a south facing sun crust and in other facets get quite large acting as "sweet spots-triggering locations" near our many rocks and cliffs. You get the point-"Russian Roulette Moderate"! Do not rely on stability tests to say much about what is going on except right where you're standing. Be wary of "false stable" test results. **To boil it down: The wind slab is on top of weak facets in an advanced state of growth in wind loaded areas. Be wary traveling out onto hard slabs that you felt comfortable on during previous trips. Expect facets under these pencil hard slabs. This weak layer is mostly found on the old, hard surface beneath these slabs in many areas in both ravines in our forecast area.** ECT&CT1 through 11 test results were common. Stronger wind slab layers, stacked on weaker faceted ones, are creating the [persistent slab issue](#). This snow structure varies widely in thickness and distribution and could propagate long distance if you find the right trigger point! Check out the embedded links in the advisory to see videos of yesterday's avalanche. Also be sure to check out our Pit post and Weekend Update later this afternoon.

Please Remember:

- Safe travel in avalanche terrain requires training and experience. This advisory is just one tool to help you make your own decisions in avalanche terrain. You control your own risk by choosing where, when, and how you travel.
- Anticipate a changing avalanche danger when actual weather differs from the higher summits forecast.
- For more information contact the Forest Service Snow Rangers, the AMC at the Pinkham Notch Visitor Center, or the caretakers at Hermit Lake Shelters or the Harvard Cabin.
- **Posted 830a.m. Day, 1-24-2014. A new advisory will be issued tomorrow.**

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