Avalanche Rose Supplemental Insert 12/19/2019
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The attached pdf is offered to students, clients, instructors and all other individuals and organizations benefitting from it. It may be used as a supplement to any field books not containing an avalanche rose tool or tools. It has been designed to help organize and analyze avalanche forecasting information by problem, aspect and elevation band, as well as to see how these problems may potentially interact. It also provides a space to indicate likelihood and consequences of problems. Feel free to download and use it for your personal and/or operational use. This rose supplement was originally developed with Apex Mountain School's recreational students in mind, but is free for all to share, download, print and use to their benefit. Enjoy and stay safe out there!
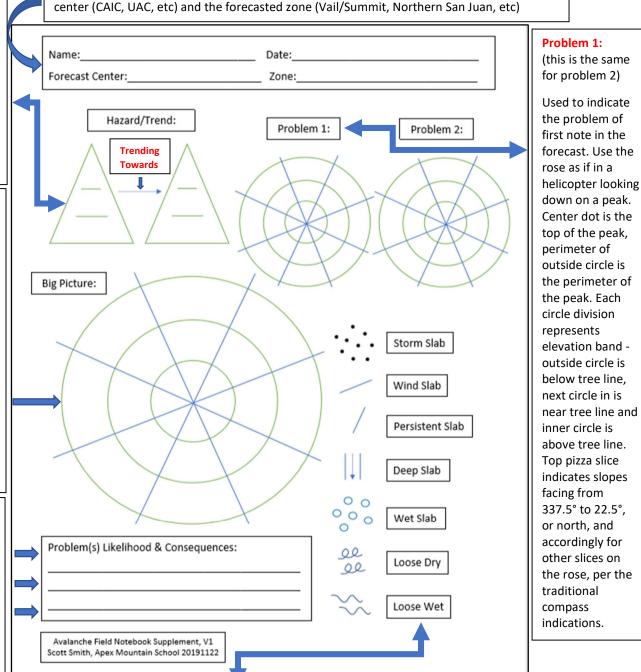
North America Avalanche Danger Scale Triangle:

Use this section to indicate the Avalanche hazard below (bottom 1/3 of triangle), near (middle third) and above (top 1/3) tree line. Use the second triangle to indicate the anticipated trend during the next forecast cycle.

Big Picture Rose: This is where we overlay problems on one rose. This affords us the benefit of seeing all of the problems simultaneously. It also allows us to see how problems might potentially interact in the landscape and even step down creating avalanches of greater consequence. This rose also allows us to chart out our route by course across the rose, noting areas of concern in the terrain.

"Problem Likelihood & Consequences": this area is used to estimate the likelihood of an avalanche problem occurring in the landscape, as well as the consequences to humans associated with the problem.

Header: In this section, note your name, the date of avalanche bulletin/forecast, the forecast center (CAIC, UAC, etc) and the forecasted zone (Vail/Summit, Northern San Juan, etc)

Name:_____   Date:_____

Forecast Center:_____   Zone:_____

Hazard/Trend:

Trending Towards

Problem 1:   Problem 2:

Big Picture:

Storm Slab

Wind Slab

Persistent Slab

Deep Slab

Wet Slab

Loose Dry

Loose Wet

Problem(s) Likelihood & Consequences:

_____

_____

_____

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Problem 1:
(this is the same for problem 2)

Used to indicate the problem of first note in the forecast. Use the rose as if in a helicopter looking down on a peak. Center dot is the top of the peak, perimeter of outside circle is the perimeter of the peak. Each circle division represents elevation band - outside circle is below tree line, next circle in is near tree line and inner circle is above tree line. Top pizza slice indicates slopes facing from 337.5° to 22.5°, or north, and accordingly for other slices on the rose, per the traditional compass indications.

Problem Symbols: These symbols represent the different types of avalanches. The symbols are used on the roses to indicate their areas of greatest concern relative to aspect and elevation band in terrain. The problem indicators are designed to be intuitive to some degree, as well as easily recognizable as follows:

Storm slab - snowflakes   **Wind slab** - parallel to WSW line on the rose   **Persistent slab** - parallel to NNE line on the rose

Deep slab - vertical lines   **Wet slab** - water droplets   **Loose dry** - blowing/circulating motion

Loose wet - flowing wet motion

For purposes of this piece, I have left out glide avalanches (rare in Colorado) and cornice (I rarely see this indicated on a rose or problem list, rather noted in content as a concern).