

## **The Avaluator Avalanche Accident Prevention Card: Facts, Fictions, and Controversies**

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The Avaluator Avalanche Accident Prevention Card, consisting of the Trip Planner and Obvious Clues (Haegeli and McCammon, 2006), is marketed as a decision support tool for helping users make decisions in avalanche terrain. For Obvious Clues, users count the number of obvious clues (e.g., loading, terrain trap), and the Avaluator tells them the percentage of historical accidents prevented, together with a travel recommendation: proceed with "normal caution", "extra caution", or "not recommended". However, the prevention values in the Avaluator differ widely from values reported by the authors elsewhere as well as from various data sets reported by others (Uttl et al., 2007, 2008). To reconcile contradictory claims and data sets, we have (1) systematically reviewed all available literature on the development of the Avaluator and contacted the Avaluator's authors; and (2) modeled accident data using various assumptions about accident reports and human memory. Our review reveals a lack of methodological clarity and many contradictory and inconsistent claims about the development of the Avaluator and prevention values. Modeling demonstrates that the assumptions used to develop the Avaluator's prevention values result in severely biased prevention values that lead users to believe they would avoid a greater percentage of historical accidents than they actually would. These findings suggest that the Avaluator's accident prevention values gives users a false sense of security and that the use of the Avaluator may lead to more rather than fewer avalanche accidents.