Avalanche Hazard, Danger and Risk - a Practical Explanation

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A complete understanding of the fundamental concepts of avalanche hazard, danger and risk should become basic requirements for anyone undertaking avalanche prediction and risk control. However, existing definitions of hazard and risk (CSA, 1997) offer only limited value to operational practitioners such as avalanche forecasters and mountain guides. This discussion brings a field-based perspective to the underlying risk constructs of probability, consequence and exposure, and places them into a practical context that explains their relevance to everyday forecasting and mountain travel. It is hoped that a more universal understanding of these concepts will lead to an improved focus on risk in avalanche education, operational practices based on risk, and published standards for operational avalanche risk control. By aligning the practice of avalanche forecasting to be consistent with other risk-based disciplines, both professionals and the public will benefit from a clearer explanation and more thorough understanding of the fundamentals contributing to avalanche risk.