TOWARDS A MULTIPLE-HIT CRITERION FOR LIGHT ARMOR (U)

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ABSTRACT (U)

(U) Mathematica has been used to develop a simulation of light armor undergoing attack by automatic weapons fire. The light armor is assumed to have multiple-hit capability and is in the form of square tiles. We are interested in the probability that the armor is not perforated, given a small number of impacts at short range (low dispersion). The simulation assumes that the impacts are normally distributed in both the horizontal and vertical directions. The simulation shows that the aim point (tile center, seam, triple point) affects the probability of perforation. The crossing velocity effect on impact dispersion is examined, as well as the consequence of hitting a seam between the tiles.