

## Examination of a Fragmenting Warhead Concept

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### ABSTRACT:

An examination is made of the effectiveness of a controlled fragmenting warhead concept. The study is based on calculated values of Weighted Task Average Impairment (WTAI) for two very specific cases: infantry in the defense with and without body armor, 30-second impairment criterion. Fragment sizes and velocities used for the comparison are similar to those produced by the M792 high explosive warhead. Assumptions are made concerning the fragment geometries and orientations, the impact velocities for the different-sized fragments, and the cumulative effect of more than one fragment impact. Results show that for this one specific case there is not a great deal of difference in total average WTAI values between the cases with and without body armor.

**KEYWORDS:** fragmentation, fragmenting warhead, Weighted Task Average Impairment