

## Moving Targets In Close Combat: An IWARS Case Study

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### ABSTRACT:

The Infantry Warrior Simulation (IWARS) is a constructive, agent-based, force-on-force combat model focused on individual and small-unit dismounted combatants and their equipment. This analytic tool is used to assess the military operational effectiveness of the “Soldier-as-a-System” across a spectrum of missions, environments and threats with a variety of current and notional equipment in a virtual environment. Using this unique modeling tool, we were able to simulate a recent experiment conducted by the NSRDEC’s Modeling and Analysis Team that featured moving targets in an urban canyon. The objective of the experiment was to gather data on how soldiers acquire and engage moving the opposing force, during both day and night operations, from different distances and postures. In our case study, we attempted to replicate the combat scenarios, obtain similar statistics in order to compare IWARS output with the empirical data, and to assess the usability of IWARS from an analyst’s perspective.

**KEYWORDS:** IWARS, Soldier-as-a-System, agent-based, force-on-force, urban canyon, target engagement

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