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Weapons Characterization for Accelerating Small Arms Testing

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Abstract: Project Manager (PM) Soldier Weapons develops, produces, fields, and sustains new weapon equipment for Soldier use (PM SW, 2016). A continuing goal for PM Soldier Weapons is to reduce the time and cost it takes to develop new weapon technology, including targeting optics. PM Soldier Weapons is investigating using a “shock table” to replicate small arms effects on optics resulting from firing a weapon over its lifecycle. Use of the shock table will theoretically reduce the development timeline. This study used a weapon firing simulator to collect live fire data, transformed the data into a life-cycle schedule for the shock table to investigate testing timeline impacts. The final results from this study are forthcoming and are expected to reveal that use of a shock table, as envisioned by PM Soldier Weapons, in place of live-fire life-cycle weapons testing will benefit the testing and acquisition process.