Soldier Load Effect Considerations for Materiel Acquisition

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Abstract: The Load Effects Assessment Program – Army (LEAP-A) is an obstacle course the Army plans to utilize for support of individual equipment decisions. The LEAP-A attempts to mimic the most salient and challenging combat tasks that impact Soldier performance and limitations. This study seeks to provide a measurement methodology for the LEAP-A. Shoot, move, and communicate summarize Soldier tactical tasks. Currently, the LEAP-A methodology fails to address Soldiers shooting or communicating. Lacking measurements for the latter two tasks limits the LEAP-A’s effectiveness for acquisitions decisions. The recommended LEAP-A methodology includes measurements for shooting and communicating, as well as improved movement assessments with electromyography and heart rate sensors in a tactical environment. The recommended measurement methodology seeks to improve the use of the LEAP-A to support acquisitions decisions.

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