



U.S. Army Sgt. James Balestrini, fire control specialist with 4th Battalion, 1st Field Artillery Regiment, 3rd Armored Brigade Combat Team, 1st Armored Division, positions himself in the prone to qualify on the M240B Machine Gun at Montana Range in South Korea, Jan 25., 2019. Building warrior task proficiency increases lethality and readiness for the unit to respond to any contingency when required. (U.S. Army photo by Sgt. Alon Humphrey)

Defining and Assessing Lethality

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Army Chief of Staff Gen. Mark A. Milley's *Modernization Priorities for the United States Army* (2017) "has one simple focus: make Soldiers and units more lethal" (pg. 1). With that in mind, the *Merriam-Webster Dictionary* definition of lethality is "capable of causing death" ("Lethality," 2018). Despite being clearly defined, how does the institutional Army doctrinally define Soldier lethality? And what should be the metric which encompasses the marksmanship, physicality, and mentality aspects of it?

Lethality is a Line of Effort (LOE) for Asymmetric Warfare Group (AWG) Operational Advisors (OA). OAs are charged with identifying material and non-material solutions to enhance a Soldier's deadliness on the battlefield. However, in order to enhance it, we need to clearly

define it as it applies to the institutional U.S. Army and develop a metric to assess individual Soldiers and units.

The U.S. Army currently uses standards to determine an individual Soldier's level of fitness. Attributes such as flexibility, strength, endurance, and stamina can be assessed to determine the degree of individual fitness as well as overall unit fitness. But to be truly effective across the U.S. Army, there must also be a measurement of individual and unit lethality.

The proposed rubric (*Figure B*) is merely an attempt to generate discussion on how this subject could be measured for our Soldiers and formations. The intent of this article is not to concretely define lethality or promote the offered rubric as a new Army-wide standard, but simply highlight this current gap in doctrine and push for progressive change.

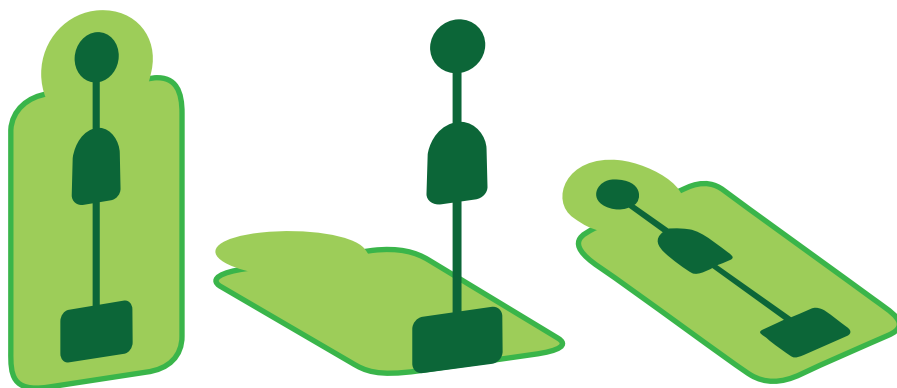
Marksmanship

As a thought experiment, ask yourself which Soldier you would prefer to have in your formation: an expert marksman with a perfect score, or a Soldier that hit only 50 percent of their targets? At face value, logic would dictate most leaders would select the “expert” over the unqualified Soldier. However, upon further examination, what if you learned the expert shooter had forty glancing blows versus the unqualified shooter’s twenty center-mass kill shots while correcting multiple weapons malfunctions?

The current U.S. Army 300-meter Field Fire Qualification (FFQ) only rewards registered hits, with zero premium on hit location, lending it to be a subjective measurement in terms of an actual kill rate. For instance, many units award a shooter an “alibi” round if they have ammunition left over due to stoppages or user error, obscuring the lack of weapon proficiency and focusing only on rifle marksmanship under ideal circumstances.

The U.S. Army 300-meter FFQ encompasses one facet of lethality, but is limited in its capability to adequately judge overall individual Soldier lethality because the ability to employ a weapon system is only a fraction of a more comprehensive process. It is not capable of replicating the challenges Soldiers face on today’s modern battlefield: a complex operational environment requiring a balance of adaptability, mental acuity, tactical and technical expertise, strength, endurance, and a suitable acceptance of violence to name a few.

There are, however, ways to enhance the U.S. Army 300-meter FFQ, such as engineering and equipping specialized targets which reward kill shot accuracy over the glancing blows that will only anger an enemy in combat instead of stopping them completely—and permanently. *Figure A* demonstrates a proposed design for a target that captures lethality to a greater degree than the current marksmanship test.



Presentation

No Critical Hit

Critical Hit

Figure A. Adapted targets designed to reward kill zone shots. (Graphic by Sgt. 1st Class Zachary J. Krapfl, Asymmetric Warfare Group)

Critical Zone

One idea to prioritize marksmanship is to implement the *critical zone* concept using special targets. The existing target structure is not an accurate measurement of combat accuracy because of the previously mentioned glancing blow scenario as opposed to the kill shot preferred hit. In *Figure A*, if a Soldier shoots and impacts a *non-critical zone*, the outside target falls and the *critical zone* remains standing. If a Soldier shoots and impacts a *critical zone* (“T-Box,” breast plate, pelvic bone, spinal column), the entire target falls and the shot is a success in terms of lethality.

The only other modification, aside from targets, is the scoring criteria. The ammunition allocation should remain at 40 rounds, but the total possible hits should increase to 80 as each round in the critical zone will be counted as two hits.

In addition to modifying the U.S. Army 300-meter FFQ, it is pertinent to include a “stress shoot” event. The relative calmness of traditional marksmanship ranges needs to merge with a sense of controlled chaos by introducing physical and mental stressors. A possible solution is to combine a physical event with a known distance (KD) accuracy qualification utilizing a 25-meter, E-type silhouette target with rings at 100, 200, and 300-meter distances. The event can be accomplished with as little as 30 rounds. The 25-meter E-type silhouette’s three, four, and five point scoring rings can provide criterion which captures lethality.

Engineering and equipping ranges with specialized targets and conducting stress shoots will not entirely address lethality in the marksmanship field, but it is a start towards improvement and progress.

Physicality

Being a Soldier is a physically demanding profession. Maneuvering to and from positions of optimal vantage quickly is equally as important as a Soldier’s ability to

effectively engage enemy combatants with a weapon. Therefore, in order to enhance lethality, physicality must also be prioritized accordingly.

The current Army Physical Fitness Test (APFT) is designed to test a Soldier’s “cardio fitness, strength and endurance” (“Army Physical Fitness Test,” n.d., para. 6). The APFT serves its purpose with respect to the aforementioned areas but is not indicative of the physical requirements posed by



A combat engineer assigned to the 173rd Airborne Brigade participates in "Battle for the Castle," Dec. 14, 2018 in Vicenza, Italy. "Battle for the Castle," is a grueling fitness event that tests the unit's fitness level and enhances *esprit de corps* throughout the organization. (U.S. Army photo by Spc. Henry Villarama)

combat. Soldiers who have deployed understand combat does not discriminate based on age or gender, nor should the physical assessment.

The Army's unveiling of the Army Combat Fitness Test (ACFT) negates the gender and age bias of the APFT. The ACFT will serve as a better overall metric when determining a Soldier's physical prowess ("Army Combat Fitness Test," n.d.). The ACFT is not without drawbacks though. The ACFT requires a significant amount of equipment, manpower, and time. In addition to the APFT or ACFT, supplementing those with a Combat Physical Fitness Test (CPFT), a tactically focused physical event, could be beneficial in determining an individual Soldier's overall lethality.

An example of a CPFT is the one AWG OAs complete during the Operational Advisor Training Course. The event includes a two-mile run to a turnaround point in which they scale a six-foot-wall, then another two-mile run and a 180-pound casualty carry for 50-meters which concludes the event. The CPFT is conducted in operational camouflage pattern uniforms, helmets, and plate carriers. While the APFT and ACFT are great evaluations for physical fitness in garrison, and by no means is this an argument against them, but supplementing them with a CPFT would provide a much better assessment as to whether a Soldier, or entire unit is combat ready.

Mentality

It is incumbent upon leaders to mentally prepare their Soldiers for combat. Inducing stress during training is one of the most beneficial ways to prepare Soldiers for the rigors

of combat. Preparing aggressively-minded Soldiers for today's battlefield landscape is multifaceted and requires a balance of understanding in areas such as: Military Occupational Specialty (MOS), Rules of Engagement (ROE) and Law of Armed Conflict (LOAC).

A written MOS skill-level examination is one means to ensure a Soldier's understanding of their duties and responsibilities. For example, an infantry fire team leader should be intimately familiar with the capabilities and characteristics of each weapon system at their disposal. Knowing the maximum effective range of a M320 Grenade Launcher Module may seem trivial during a training exercise, but not knowing it could be detrimental during combat.

In addition to MOS-specific skill-level assessments, it is also vitally important to understand when lethal intervention is legally justified in accordance with the ROE and LOAC. Wars in Afghanistan, Iraq, and Syria honed the skills of a perceptive and adaptive enemy that is eager to exploit our weaknesses. A Soldier's understanding of the ROE and the principles of LOAC is essential and can be measured with a multiple choice test over specific hypothetical scenarios. As stated in *Joint Publication 3-0, Joint Operations* (2018), "The strategic environment is uncertain, contested, complex, and can change rapidly, requiring military leaders to maintain persistent military engagement" (Joint Operations, pg. 2).

Assessment

With each of the areas contributing to individual Soldier lethality addressed, we must develop a metric to



More than 200 Soldiers from the 1st Cavalry Division rucked 18.64 miles on Nov. 2, 2018, in honor of Chaplain Emil Kapaun, an Army chaplain who was forced to march 87 miles to a prisoner of war camp during the Korean war in 1950. The annual event memorializes Kapaun and highlights the selfless service and honor of First Team Soldiers. (U.S. Army photo by Maj. Carson Petry)

| Individual Lethality Assessment Metric | | | | | |
|---|------------------------------|------------------------------|------------------------------|----------------|-------------|
| Army Physical Fitness Test | | | | | |
| Event | Possible | Score | Points | Total Possible | Total Score |
| Push Up | 100 | 82 | 100 | 300 | 286 |
| Sit Up | 100 | 82 | 100 | | |
| 2-Mile Run | 100 | 14:00 | 86 | | |
| U.S. Army 300 Meter Rifle Field Fire Qualification with Dual Hit Targets | | | | | |
| Event | Possible Hits | Single Hits | Kill Shot | Total Possible | Total Score |
| Prone (S) | 40 | 18 | 12 | 80 | 56 |
| Prone (U) | 20 | 9 | 7 | | |
| Kneeling | 20 | 6 | 4 | | |
| Combat Physical Fitness Test | | | | | |
| Event | Standard | Score | Points | Total Possible | Total Score |
| Six Foot Wall | Go / No-Go | Go | 25 | 100 | 100 |
| Dummy Carry | Go / No-Go | Go | 25 | | |
| 4-Mile Run | Under 40 Minutes | Go | 50 | | |
| Known Distance Accuracy Qualification | | | | | |
| Event | 100 Meter (Score / Possible) | 200 Meter (Score / Possible) | 300 Meter (Score / Possible) | Total Possible | Total Score |
| Prone (S) | 10 / 10 | 19 / 20 | 18 / 20 | 150 | 131 |
| Rounds | 2 | 4 | 4 | | |
| Kneeling Barricade | 20 / 20 | 17 / 20 | 5 / 10 | | |
| Rounds | 4 | 4 | 2 | | |
| Standing Barricade | 25 / 25 | 12 / 15 | 5 / 10 | | |
| Rounds | 5 | 3 | 2 | | |
| Military Occupational Skill (MOS) Skill-Level Test | | | | | |
| Event | Questions | Possible Score | Possible Score | | |
| Exam | 50 | 100 | 92 | | |
| Individual Lethality Assessment Composite Score | | | | | |
| Total Possible Points | | | | | 730 |
| Individual Soldier Score | | | | | 665 |
| Percentile | | | | | 91 |

Figure B. Mock assessment with arbitrary scores to showcase a potential metric rubric. (Graphic by Sgt. 1st Class Zachary J. Krapfl, Asymmetric Warfare Group).

assess it in order to improve it. An example metric (*Figure B*), with arbitrary scores, provides commanders with a graphical snapshot of an individual Soldier's lethality:

Events

- APFT: Pushup, sit-up, and two-mile run graded according to the male 17-21 age group standards
- CPFT: Two-mile run, six-foot-wall climb, two-mile run, and 50-Meter 180-pound casualty carry
- U.S. Army 300-Meter Field Fire Qualification with Critical Zone Targets
- KD Accuracy Qualification: Utilizing 25-meter E-type silhouette with rings at 100-, 200-, and 300-meter distances
- MOS Skill-Level Examination: 100-point test to determine tactical and technical proficiency knowledge

Unit Lethality

An individual Soldier lethality metric can serve as a baseline for Soldier evaluation. However, additional metrics will need to account for units that close with and destroy enemy forces, or deliver firepower and

destructive capabilities to the battlefield. The infantry will need to prescribe specific assessments for mortar and sniper sections, as well as the mechanized infantry. Other branches such as Air Defense Artillery, Armor, Aviation, Engineer, Field Artillery, and Special Operations Forces will each require a uniquely tailored metric to capture unit lethality.

The U.S. Army's Objective-Task (Objective-T) concept and the individual Soldier lethality metric are complimentary. Objective-T will indicate the level of unit readiness in regards to their Mission Essential Task List (METL), while the individual lethality metric substantiates lethality. METL proficiency does not equate to lethality, yet will set the conditions to enhance it. Likewise, lethality alone does nothing to promote tactical and technical expertise.

The battlefield is a dynamic environment which rewards lethality with survival. Leaders should have a fair indication of how capable their Soldiers are prior to conducting military operations. They can only do this by defining lethality as it applies to the U.S. Army, and developing a metric to substantiate it. ■

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