



Revitalize Your Unit's Marksmanship Program

*by Focusing on Fundamentals,
Empowering Junior Leaders*

CPT KEVIN BRIGHT
1SG MATTHEW PEELER
JOSEPH M. PISARCIK

Infantry One Station Unit Training (OSUT) regularly produces companies of Infantrymen in which more than 80 percent of the formation scores sharpshooter or better during qualification. OSUT's marksmanship strategy covers 18 periods of rifle marksmanship instruction, placing an emphasis on the four fundamentals of marksmanship (steady position, breathing, trigger control, and sight picture/sight alignment), the five elements of a steady position, natural point of aim, and the integrated act of firing.

The training plan moves through back-up iron sights (BUIS), grouping/zeroing (25 meters), confirmation of zero (at distance to achieve a true 300-meter zero), known distance (KD)/location of hit or miss (LOMAH) courses of fire, BUIS qualification, M68 Close Combat Optic grouping/zeroing, confirmation of zero (at distance), combat field fire, and barrier shooting before culminating with a qualification course of fire. This strategy works well because the drill sergeants focus on each individual fundamental, building a shooting position from the ground up through dry-fire drills, transition training, shooter analysis, shot group analysis, concurrent training, reinforcement training, and remedial training (when necessary) to reinforce and fine-tune the shooting skills required.

The focus on teaching fundamentals first and then practicing, drilling, and rehearsing has yielded tremendous results. Teaching a steady position correctly can have the largest impact on a shooter. The process starts with the identification of the shooter's center of gravity and then establishes that the most stable platform is the ground — the further away from the ground, the less stable you are. Reinforcement of a wide base during all positions (prone supported, prone unsupported, kneeling unsupported, kneeling barricade supported, and standing barricade supported) ensures that trainees have a solid platform to engage targets from. Reinforcement of stability is provided through four functions: support (artificial and bone), muscle relaxation, natural point of aim (NPA), and recoil management (recovery and follow through after the shot). Trainers cover leg position, stance and center of gravity, firing elbow, non-firing elbow, firing hand, non-firing hand, butt stock, and stock weld — all while reinforcing that comfort equals durability and sustainability of the shooting position.

Many poor shooters will display their bad habits in one of the above mentioned body positions. An unsteady position causes muscle fatigue, brings a Soldier off his NPA, and reduces recoil management. These three effects can be analyzed with a few drills that will indicate if a Soldier has a steady position. To find their NPA, have Soldiers close their eyes and allow their bodies to shift into a comfortable position. If the rifle has moved off target, they then reposition the body to naturally bring the rifle on target and repeat the process once again. Fatigue can be exacerbated by hanging a full canteen or other weight from the rifle. This drill exaggerates the muscles that will fatigue first and highlights incorrect positions. A common drill to examine recoil management, especially in the kneeling and standing positions, is for a trainer to push the muzzle of the rifle back into the shoulder. This drill quickly demonstrates if a Soldier's body is not balanced or stable. There are many more creative drills, but the point is to break down stable position into the

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three effects to determine weaknesses and then which of the eight points of contact need to be adjusted to correct it.

Trigger control is broken into three factors: trigger finger placement, trigger squeeze, and trigger reset. Trigger finger placement means gripping the weapon so the finger naturally falls across the trigger. There is no specific place on the finger the trigger should lie so the correct position varies from Soldier to Soldier. Trigger squeeze is applying smooth pressure to the trigger until the weapon fires. The speed of the trigger squeeze is not as important as a smooth squeeze. Trigger reset (or follow through) is deliberately returning the trigger to the forward position. A good practice is for Soldiers to pause long enough on the squeeze that when they reset the trigger they can easily hear the reset. The most common drill to teach proper trigger squeeze is the dime and washer drill, which involves balancing the washer on an extension rod that is set in the barrel.

Sight picture and sight alignment are the next most common issues poor shooters have. Identifying eye dominance is a common issue especially with Soldiers who are cross dominant, meaning their dominant eye is on the opposite side as their dominant hand. If Soldiers are accustomed to shooting with their monodominant eye due to cross dominance, they may experience an initial drop off in marksmanship when using the correct eye. Though discouraging, this drop off is normal and temporary. Training and familiarity with the dominant eye will lead to shooting better than with the monodominant eye.

Another common issue is incorrect sight alignment. This is caused by Soldiers' natural tendency to want to focus on the target instead of the clear cutting edge of the front sight or reticle. Leaders need to emphasize keeping the front sight or reticle in focus while firing. Sight alignment issues usually arise when Soldiers do not correctly identify the range to the target nor the point of aim to a target at that distance. For the standard 300-meter zero, Soldiers should aim at the center of visible mass for the target; all other targets must be engaged utilizing a hold under center mass.

There are several training aids to teach correct sight picture and sight picture alignment. These analog tools have the advantage of being small enough to fit in an assault pack and can be quickly used when a leader identifies time for quick opportunity training. The M15 Sighting Device is a small cardboard sleeve with a plastic overlay that resembles a rear and front sight point alignment. The Soldiers move the card to demonstrate they understand what a proper sight picture looks like. This tool can be used to demonstrate the proper point of aim on targets at varying distances based on trajectory. Using this tool, the drill sergeant can demonstrate to Soldiers



Photos courtesy of author

A Soldier watches his battle buddy for correct use of the fundamentals.

how to aim at targets from 150-300 meters and in turn have Soldiers use the device to demonstrate they understand the correct point of aim.

A training exercise that pays dividends teaching soon-to-be Infantrymen proper sight picture and sight alignment is the target box exercise. During this exercise, a Soldier sets his rifle on wooden blocks or otherwise immobilizes the weapon while he aims at a piece of paper. A battle buddy has a cutout of an E-type silhouette that has a small hole in the center of mass. Without moving his rifle, the first Soldier directs his buddy to move the target until he is aiming at the correct point of aim. The Soldier holding the silhouette marks the location and then moves the target and the exercise repeats. In this fashion, the Soldier can see where the target was in relation to his point of aim for each iteration. A few iterations of this exercise produce a shot group on the paper for a firer to gauge his consistency; the goal is to be able to achieve a two-centimeter shot group on paper. This drill can also be very versatile and turn into a competition for the tightest shot group. Silhouettes of different sizes can simulate different ranges, and the hole in the silhouette can be adjusted for the correct point of aim. Different firing positions can also be used. This is a low-cost, low-resource method of providing the Soldier feedback. The drill can be quickly set up and completed out in the field as concurrent training at 10 and 25 meters.

Improper breathing is usually caused by Soldiers trying to hold their breath to completely eliminate any movement of their weapon. Soldiers need to be taught that breathing will naturally produce an arc of movement in the rifle (usually in the form of a figure eight or a W [wobble zone/area]) and to shoot within the movement instead of fighting it. The pressure to perform well at a range will naturally elevate heart rates and breathing so it is important to teach Soldiers to take deliberately slow and deep breaths throughout the entire firing process.

Sometimes called “combat breathing,” this process also exaggerates the natural pause between the inhale and the exhale.

The exercises discussed above are all simple techniques that focus on fundamentals of marksmanship and can be conducted and resourced at the team-leader level. At training events where the Soldiers already have weapons drawn, these exercises make good concurrent training. Leaders need to be aware of these exercises and resources in order to empower their junior leaders to conduct marksmanship training long before live ammunition is ever used. By trusting our junior NCOs to conduct thorough and rigorous training at their level, we ensure that time with more resource-intensive tools is not squandered covering basics that should already have been established.

Marksmanship training begins with BUIS. Many units have become reliant on optics. These offer great advantages in combat situations but can prevent leaders from identifying weaknesses in a Soldier’s use of the marksmanship fundamentals. Ammunition and range allocation may not allow for a BUIS zero and qualification, but there are many dry-fire drills that are best conducted with an iron sight. For the above reasons, seven of the 18 periods of instruction on marksmanship at Infantry OSUT are conducted with BUIS.

Marksmanship is honed using simulation systems before the first live round is ever fired. One of the better-known systems is the Engagement Skills Trainer (EST) II, which uses an M4 of accurate weight to provide immediate feedback to Soldiers. The system follows the path of a Soldier’s sight picture, measures recoil management and follow-through during trigger squeeze, and offers a myriad of scenarios. The EST is immobile and requires prior coordination so it becomes a training event in itself, and emphasis needs to be placed on efficiency of training. Leaders who have not worked through a marksmanship training plan will find their junior NCOs spending time at the EST range working with weak shooters on the fundamentals that should have been previously identified and trained. Infantry OSUT uses the EST II to train on grouping before a live-fire group and zero and then again before qualification. This progression allows Soldiers to demonstrate their mastery of the fundamentals before the first round is ever fired.

The first live range in a unit’s training plan is to conduct a grouping exercise and then zero individual weapons. A common mistake is for experienced Soldiers to get a quick confirmation of their battle sight zero while new Soldiers are rushed through with a “good enough” zero in order to maximize time on the qualification range. Oftentimes, Soldiers who fail to qualify are sent back to a zero range to confirm their zero and sent right back to qualification tables. A more efficient technique is for a trainer to run through the dry-fire drills as a diagnostic to determine which fundamental is weakest. The diagnostic drill will also ensure space on the range and that ammunition is not being wasted. A good practice to ensure

a more accurate 25-meter zero is to use five-shot groups as opposed to three-shot groups. Ammunition is usually allocated to take into account three-shot groups, but the advantages of having better marksmanship is that fewer rounds will be needed to retest at the qualification ranges. Leaders need to ensure that Soldiers are using the correct offset when using optics. This information is located in the technical manual for each optic. Treating the zero range as its own event prevents the conflict of time, trainers, and ammunition being shared between a 25-meter zero range and a qualification range. A separate zero range ensures that the proper amount of emphasis is being placed on the training.

The grouping and zero range is followed up by a KD range to confirm the zero up to 300 meters. According to Training Circular (TC) 3-22.9, *Rifle and Carbine*, "The most important step in the zeroing process is zero confirmation out to 300 meters." The key to the confirmation is the range must provide feedback to the firer on where rounds are impacting the target. A mistake some units make is to use a qualification range with the 300-meter targets up to confirm zero. An automated record fire range ran in this matter does not provide the Soldier with the point of impact information needed to make adjustments to his rifle. A recommendation is that a KD range or a LOMAH be utilized for zero confirmation at distance. The 300-meter confirmation is critical to ensure that Soldiers can accurately and confidently engage all targets up to 300 meters.

Many units incorporate ranges that cover techniques beyond the three positions used during qualification tables as well as to incorporate barriers, physical exertion, and a myriad of other techniques to make the range provide conditions more realistic to a battlefield. During OSUT, the two ranges that capture battlefield conditions are the introduction to barricade shooting range and combat field fire (stress shoot). Beyond expanding the Soldiers' skill sets, the purpose of these ranges is to build confidence and familiarity with the rifle while shooting from multiple firing positions while wearing the Advanced Combat Helmet (ACH), Fighting Load Carrier (FLC,) Improved Outer Tactical Vest (IOTV), and eye and hearing protection. Soldiers who may get test anxiety at a qualification range will now be more confident because they have successfully engaged targets under stress and in positions that are new to them. The challenges at these ranges also force Soldiers to think about the fundamentals of marksmanship, the factors of a steady position, and how well they have been applying these concepts during marksmanship. Soldiers are being challenged to find a steady position against a window and a wall and adjust their body to provide a stable platform. During the combat field fire, Soldiers are put in conditions that induce muscle fatigue and elevated breathing rates. These conditions force the Soldier to be much

more conscience of breathing (natural respiratory pause/ stopping the breathing cycle), trigger squeeze, and steady position to accurately engage targets at multiple ranges. Placing these two ranges before the qualification range serves the same purpose as the previous dry-fire training: to build confidence by creating conditions that highlight the importance of marksmanship fundamentals.

In an ideal world, marksmanship training across the enterprise would get the same focus as Infantry OSUT places on it, but other requirements prevent this in many units. Leaders can ensure that concurrent training is providing the best training value to Soldiers by ensuring junior leaders have access to — and are trained on — all the training aids available. The integrated weapons training strategy (IWTS) provides new requirements for the force to conduct preliminary rifle instruction, utilize simulations (EST and others), and conduct drills, grouping/zeroing, practice fires and qualification ranges. A robust program also relies on company leadership validating the trainers on the new doctrine, especially since the new TC 3-22.9 was published on 12 March 2016 and the changes may not be well known. Drill sergeants have gotten amazing results with brand new marksmen by placing a heavy emphasis on the fundamentals and training them in detail. This same return to basics and empowering junior leaders can revitalize a unit's marksmanship program or take an already well-established program to the next level all while sustaining this perishable skill set and improving lethality across the force.

CPT Kevin Bright serves as the commander of D Company, 1st Battalion, 50th Infantry Regiment, Fort Benning, GA.

1SG Matthew Peeler serves as the first sergeant of D/1-50 IN.

Joseph M. Pisarcik is an instructional system specialist with the 198th Infantry Brigade.

