

Basic Rifle Marksmanship: An Overview in Effectiveness vs Efficiency

Basic Rifle Marksmanship (BRM) is a fundamental task for Soldiers, regardless of Military Occupational Specialty, all Trainees are expected to effectively engage the enemy. Qualifying with their primary weapon system, the M4 Carbine, is a standard that must be met in order to successfully become a Soldier. To be successful in Basic Combat Training CO Leaders and Drill Sergeants must first focus on effectiveness (providing the highest quality training to the Trainees) and once effectiveness is planned and established build the needed efficiency into execution. The primary emphasis of effectiveness is the focus on doing the right things, or the quality of Soldier produced, for example does the Trainee qualify on their first attempt. Qualifying on the Trainee's first attempt is potentially be best indicator of effective training leading into qualification, however the ability to analyze and adjust concurrent training to account for challenges on the range also speaks to effectiveness. Efficiencies will naturally come and with better understanding be integrated into training with a focus on throughput or quantity without sacrificing the overall effectiveness. BRM is not only standard that must be met, and with a full fill that consists of 240 or more Trainees in your formation, a balanced approach for is needed to ensure Trainees pass the APFT, qualify with BUIS and CCO, throw hand grenades, etc. The company has found a way to put effectiveness first with built in efficiencies with Basic Rifle Marksmanship Program. We have consistently achieved, both the maximum number of trainees qualified, while also maintaining the highest average scores and numbers of trainees qualifying as Expert.



The following will focus on a holistic and effective approach to successfully achieve BRM qualification standards for Trainees. It is important to understand that qualification must be viewed in terms what the company needs to do prior to qualification, what range concerns should be considered to provide the best opportunity to Trainees, how to focus concurrent training on what's truly needed and finally looking at ourselves post execution to improve the next cycle's training.

Prior to Execution of Qualification

There are many areas that must be focused on prior to execution of qualification for both Cadre and Trainees. First, our Drill Sergeants must understand the fundamentals of BRM themselves as well as how to identify common mistakes, correct these mistakes with proper form and coach them to build their confidence so the Trainees can improve. Many Drill Sergeants may arrive with limited experience to coach, teach and mentor Trainees in BRM. This is no fault of those professional NCOs that arrive here to transform civilians into Soldiers, but they do require additional training themselves in the basics to become the best Trainers in the United States Army. Every six months the Battalion leverages our school trained Master Marksmen to run a small week long course, focused on Drill Sergeants that need some



additional training to maximize their effectiveness in training up, group and zeroing, then executing qualification. The following has been stated many times by leaders, you can't produce an "A" level Trainee with a "C" level Drill Sergeant. Leaders must invest in our professional and dedicated Drill Sergeants to ensure we have provided them with the skills, tools and knowledge to be the effective coach and mentor we expect. Our Drill Sergeants will set the conditions for effective training, efficiency comes when we cross level this important skill set and all Drill Sergeants are able to provide necessary feedback to coaches and firers, not only executing the task but conducting concurrent training.

When it comes to Trainees, there is a lot you can do prior to execution to set the conditions for success once the first round goes down range at Back Up Iron Sites (BUIS) Group and Zero (G&Z). First, we must always ensure the Engagement Skills Trainer (EST) is used effectively. Leaders cannot allow an efficiency mindset to take over and look for through put only. Drill Sergeants need to effectively leverage this time, provide helpful feedback from a coach and teacher perspective. We cannot have Trainees fire, tell the operator to put the next targets up, repeat and tell them to get up and move out...we must ask ourselves...what did we achieve and how did this assist the Trainees? The first range day is typically a difficult time for Trainees that have never fired a weapon before, nerves and stress levels may be high as they continue to think about the importance of G&Z...sometimes mentally defeating themselves. Through dedicated repetition prior to the range day, we can build their confidence and understanding of the fundamentals. The more the Trainees are familiar with the fundamentals (particularly sight picture and how to get into a stable position) the better their initial groups will be (effectiveness). Additionally, both the Cadre and Trainees rehearse range procedures and expectations prior to arrival which makes things run much smoother as well (efficiency). Drill Sergeants that are able to identify specific fundamental issues of Trainees early in their Group and Zero, can then direct specific concurrent training before bringing them back to the firing line. This prevents needlessly expending resources (time and ammo) before a Trainee has confidence in their fundamentals.



Following BUIS G+Z, Trainees move onto LOMAH or Location of Misses and Hits. This is one of the most important ranges for ensuring success at the Qualification Range. The LOMAH range validates the Trainee's zero at distance, and it also ensures they understand trajectory (some of the most missed targets are the 150/200m, particularly in the prone unsupported position). This range is able to demonstrate these points first hand from the Drill Sergeant's class on trajectory, it's imperative the connection is made while executing this range. A technique determined to be successful, is to first have the Trainees confirm their shots in the prone supported without the ACH/FLC. This validates their site picture and point of aim prior to adding the gear to the equation. Once this confidence is developed, they understand not to change their sight picture when given an opportunity to fire in ACH/FLC. This deliberate process also bridges the gap to be success when qualifying with the ACH/FLC. Furthermore, by adding one variable at a time coaches can be more effective in diagnosing areas of





improvement. Ultimately, LOMAH, if leveraged correctly, provides a confidence boost prior to BUIS/CCO Qualification. It's important to explain to Trainees that if they can hit the 300m on the LOMAH they have already accomplished the most difficult task on Qualification. This establishes the mindset that they can hit every shot if they apply themselves, thus building upon their effectiveness and moving them beyond simply striving for a minimum qualification score.

Site Selection

Range selection or more simply put, understanding the range through a range recon is very important to achieving the effectiveness needed for Trainees. Company leaders and Drill Sergeants must understand potential limitations of the Range, specifically the time of year and day in which the range is scheduled. For example, some ranges in the morning will be directly in line with the sun rise making it difficult to view the targets. Other ranges may have shadows cast on the lanes which appears to make the target disappear at the 250-300m range. Other ranges may have conditions where berms are not present behind the target and the 250-300 may blend in with the tree line in the distance, making it extremely difficult to effectively engage.



Once these natural conditions are understood, leaders can assess if target sleeves may be need to contrast the targets or if an adjustment is needed for start time or simply shutting a few lanes down until conditions are ideal to ensure effectiveness. In addition to these natural conditions, leaders must assess the usability of each target on each lane to ensure they have



remaining functionality to still register hits. Leaders must make these assessments and cannot allow conditions to exist where targets are no longer registering hits, this reduces Trainee confidence, wastes government resources and degrades effectiveness on the range. Our Drill Sergeants time is too valuable to be wasted because targets were not switched out.

Another means to gain an understanding and better appreciation for the range is through the data provided by the Tower at each range. The tower at each qualification range captures data on every shot fired, by every unit, and whether it was a hit or a miss, by target, lane, and range. How can this be used? For this most recent cycle a range recon was conducted on a Qualification range the Company had not fired on previously. Prior to execution range cadre pulled the data from the last units to conduct BUIS qualification and CCO qualification. These data points from various Battalions highlighted each had lower scores on BUIS, however each showed good improvement on the CCO. A conclusion can be made that the BUIS scores were due to inexperienced shooters and that there was nothing wrong with the range (occasionally ranges have maintenance problems that lead to poor scores – consistent across BUIS and CCO on particular lanes and distances). On occasion after waling lanes on a range, it can be noted that there are elevation variations for the 50-100m targets, which range analytics will highlight and confirm on paper with lower hit percentages. This information helps shape an approach, to potentially close a lane down that has issues and inform range control of those concerns so they

can correct it for future use. While this may slightly decrease efficiency up front, it certainly ensures effective use of the range and resources to ensure Trainee success which ultimately can lead to 100% qualification, thus getting after the necessary efficiency in the end.

During Execution

The Battalion approach is to split the 160 rounds between two days, providing Trainees two attempts on pre-qualification and two attempts on qualification days. Splitting the ammo in this manner facilitates additional concurrent training during execution to focus on fundamentals the Trainees may be struggling with. Typically, the Trainees will all fire one iteration prior to breaking for lunch, this break allows the Drill Sergeants and Company leadership to print out the scores, including the range analytics to review and assess their results. The range analytics and scores can identify not



only which lanes Trainees are having difficulty on (ex. lane or target issues) but also which firing position and target locations they are struggling to engage. This assessment is conducted for both pre-qualification and qualification on BUIS and CCO. Understanding the specifics assists in modifying the concurrent training to focus on what is needed to most to ensure the effectiveness and efficiency of training

before Trainees conduct another qualification. As an example, last cycle Trainees achieved only a 50% hit rate on the 100m target from the prone supported, and generally struggled in the prone supported position, the exact opposite of what “common sense” would suggest from the most stable firing position. Normally, the 100m target is not a difficult shot for Trainees, with a historical 80% hit rate. Regardless of the thought process, the data points were followed and prior to putting the Trainees back on the firing line for their second iteration several of the Drill Sergeants conducted another class on trajectory (it was determined Trainees were firing over the 100m target) and where to aim at certain targets. Following the targeted training, the hit percentage on those targets increased dramatically

in the

Table 1: PRONE SUPPORTED				
Distance	Num Exposures	Total Hits	Total Kills	Percent Kills
50	261	162	182	69.7
100	348	176	176	50.6
150	348	259	259	74.4
200	348	162	162	46.6
250	261	99	99	37.9
300	174	33	33	19.0
Total	1740	911	911	52.4

Table 2: PRONE UNSUPPORTED				
Distance	Num Exposures	Total Hits	Total Kills	Percent Kills
150	348	253	253	72.7
200	261	129	129	49.4
250	174	53	53	30.5
300	87	15	15	17.2
Total	870	450	450	51.7

Table 3: KNEELING				
Distance	Num Exposures	Total Hits	Total Kills	Percent Kills
50	261	195	195	74.7
100	348	163	163	46.8
150	261	144	144	55.2
Total	870	502	502	57.7

Table 1: PRONE SUPPORTED				
Distance	Num Exposures	Total Hits	Total Kills	Percent Kills
50	585	477	477	81.5
100	780	669	669	85.8
150	780	688	688	88.2
200	780	578	578	74.1
250	585	362	362	61.9
300	390	185	185	47.4
Total	3900	2959	2959	75.9

Table 2: PRONE UNSUPPORTED				
Distance	Num Exposures	Total Hits	Total Kills	Percent Kills
150	780	696	696	89.2
200	585	468	468	80.0
250	390	240	240	61.5
300	195	101	101	51.8
Total	1950	1505	1505	77.2

Table 3: KNEELING UNSUPPORTED				
Distance	Num Exposures	Total Hits	Total Kills	Percent Kills
50	585	520	520	88.9
100	780	642	642	82.3
150	585	493	493	84.3
Total	1950	1655	1655	84.9

afternoon. The results helped support this approach, with 43% qualified on their first attempt to almost 70% qualified by the end of the day. The assessment of the data helped focus on effectiveness and ultimately enhanced the overall efficiency.

An approach focused on effectiveness, driven by the range analytical facts, greatly assists Trainees on what retraining is needed. Once Trainees are identified who are scoring very poorly on qualification, the Drill Sergeants can get an exact printout of what targets they struggled with in order to focus their efforts. As another example, it was determined Trainees were having difficulty achieving 3-4 hits on targets from the prone unsupported but doing comparatively much better in the prone supported and particularly in the kneeling position. Understanding this point after analyzing the data, an experienced marksman Drill Sergeant was able to determine and emphasize retraining on the prone unsupported position, thus retraining and focusing only on the area that was truly needed. This approach, or any Companies approach, to effective analysis through range analytics can be and should be validated through continuous study of the facts which drive the concurrent or retraining of Trainees to achieve the best results. It is simply not effective to conduct concurrent or retraining on a task that is not needed, this is where Company leadership must execute a level of mission command to best leverage their time and resources.

After Execution

Basic Combat Training cycles offer a great opportunity to continually assess and improve our approach, incorporating lessons learned to achieve better results in the next cycle. Another opportunity that exists, particularly at Fort Jackson, is the ability to share information and lessons learned across the units. Many aspects of the POI, not only with BRM, are shared unit to unit, ensuring that those approaches that worked well and those that did not are destroyed. There is no need in this environment to continuously have units learn the same things over and over. This approach has steadily improved the results over time, producing both a higher number and higher quality of Soldier. An intrinsic part of sustaining and improving excellence is involved in both capturing data and recording successful techniques, then adding them to TTPs/SOPs in order to make success the routine. It requires discipline and hard work over and above the already hard work of simply creating Soldiers, we must never accept the mentality of "that's the way we did it last cycle". If continual improvement is the goal, it is going to be because of going above and beyond the standard approach and truly assessing not only ourselves (ensuring we are capable to coach, teach and mentor), but the Trainees and the resources we have at hand to train and retrain for success. All areas must be reviewed following execution, a plan must be developed and implemented for the next cycle.

Conclusion

Effective training is possible with BRM, but must take an approach that looks at all aspects, pre-execution, site selection, execution and post-execution. While effectiveness is the goal, efficiencies will and can be built into training as a natural part of execution. The challenge of using all available tools and eliminating the "flying by the seat of the pants" or "this is how it's always been done" approach that may get Soldiers graduated but at a lower level of performance takes additional hard work and a willingness to follow the data and facts.

Military Bio

Captain Wales is originally from Bakersfield, California. He received his commission as an Engineer Officer Branch detailed Armor from the United States Military Academy at West Point.

Captain Wales's military and civilian education includes Armor Officer Basic Course, Army Reconnaissance Course, Air Assault School, Airborne School, Sapper School, and the Engineer CPTs Career Course. CPT Wales has a Bachelors of Science in Electrical Engineering from West Point and a Masters of Science in Engineering Management from Missouri University of Science and Technology.

His assignments include Scout Platoon Leader 3rd Brigade 3rd Infantry Division Fort Benning Ga, Brigade LNO Camp Buehring, Kuwait, Squadron S4, 2-16 Cavalry Fort Benning, Battalion Engineer 1-4IN (OPFOR) Hohenfels, Germany, Headquarters Company Trainer Hohenfels, Germany and is currently the Commander of C/2-60th/193rd IN BDE.

Captain Wales's awards and decorations include the Army Commendation Medal (3 OLC), GWOT, GWOT-E, OSR, NDSM, ASR, German Proficiency Badge, Parachutist Badge, Air Assault Badge, and Sapper Tab.