

# 'SEEING THE TERRAIN'

## USING TERRAIN AND ANTI-TANK SYSTEMS TO INCREASE SBCT LETHALITY AGAINST ENEMY ARMOR

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In December 2012, 3-2 Stryker Brigade Combat Team (SBCT) returned from a successful counterinsurgency (COIN) deployment to southern Afghanistan. Upon arriving to home station, our brigade made preparations to ready the formation for decisive action operations. Decisive action is defined as the concept of continuous, simultaneous offense, defense, and stability operations.<sup>1</sup> Instead of purely focusing on COIN operations, as the force has done for the last 10 years, we had to become proficient across the full range of military operations. We needed to build a force that could transition between combined arms maneuver (CAM) and wide area security (WAS) in preparation for assuming regionally aligned force missions and Army contingency force missions by March 2014. Our major waypoint along this

training path was National Training Center (NTC) rotation 14-03 in January 2014, where we would test ourselves across the full range of military operations against a hybrid threat comprised of a near-peer mechanized threat, insurgents, guerillas, and criminal elements.

### The SBCT and Anti-Armor Assets

The SBCT is an Infantry-centric organization with the rifle squad serving as the foundation of its combat power to execute decisive action operations. Based on the competencies and skill sets our unit retained post deployment

*Soldiers from 3-2 Stryker Brigade Combat Team wait to engage enemy vehicles during Decisive Action Training Rotation 14-03 at the National Training Center in Fort Irwin, Calif., on 28 January 2014.*

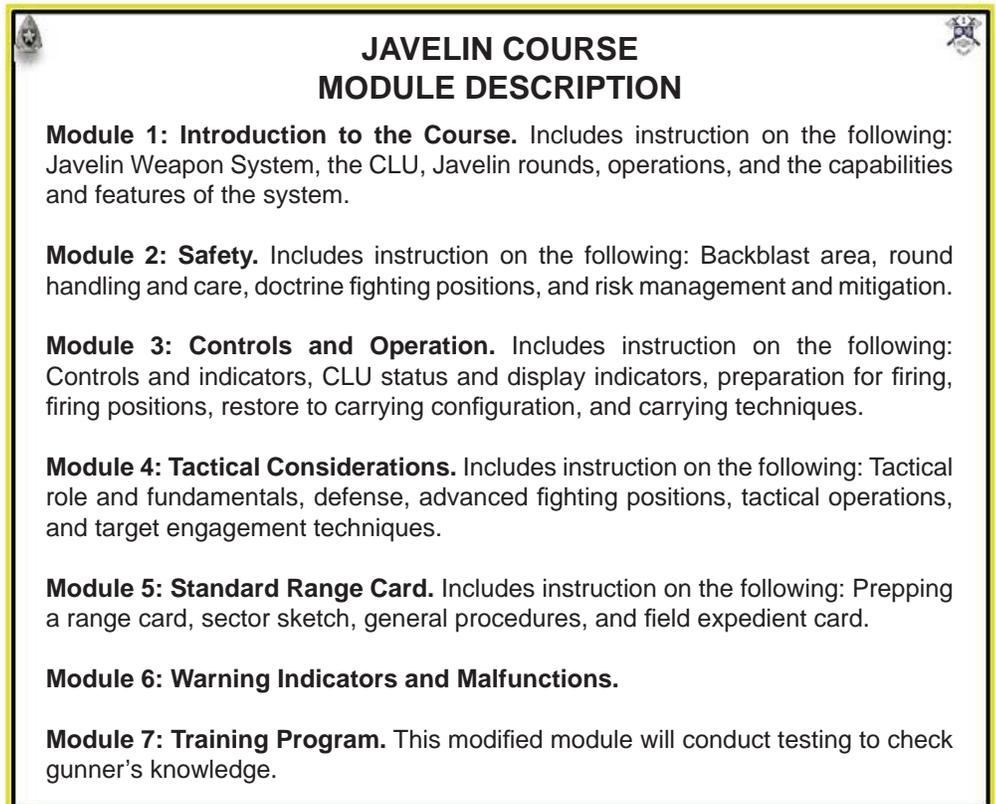
Photo by SGT Paul Sale

to Afghanistan in 2012, we took risk in training stability operations. Our brigade instead focused training efforts on offensive and defensive operations proficiency. Over the next eight months we executed individual and collective-level training up to the platoon level to prepare for the NTC rotation. As we began studying the NTC opposing force, we realized that we needed to maximize our anti-armor proficiency prior to rotation, specifically focusing on the use of Javelins.

The SBCT has three organic systems capable of destroying enemy armor and can employ lethal fires to disrupt and neutralize armored forces. The first organic system is the Anti-Tank Guided Missile (ATGM) Company that is assigned to the SBCT headquarters. This ATGM Company employs tube-launched, optically-tracked, wire-guided (TOW) systems mounted on Strykers and is highly effective at destroying armor at a range of 3,750 meters.<sup>2</sup> Many times this force is held in reserve or placed by the brigade commander to reinforce his main effort operation.

The second organic system, the Mobile Gun System (MGS), may look like a tank to the casual observer, but this vehicle was built as an Infantry support system. The MGS does have a M68A1E4 105mm cannon, but it was built to operate independently and support Infantrymen in the fight. Furthermore, the Infantry battalions within the SBCT are only authorized to have nine of these systems. It is also important to note that only 143 MGS have been produced for the U.S. Army. As a result of this decision, each SBCT will only receive nine of its authorized 27 MGS systems.

The last organic system is the Javelin, which is the primary anti-armor system across the SBCT formation. Each SBCT rifle battalion has M98A2 Javelin Weapon Systems that are employed at the squad level to defeat enemy armor. The Javelin system is a highly effective armor-defeating weapon system that was first employed in military service in 1996 as a replacement for the M47 Dragon anti-tank missile. The Javelin is a fire-and-forget missile that has automatic self-guidance that does not require a Soldier to steer the missile onto the target. This fire-and-forget capability allows the operator to fire the missile and retain cover and concealment. The Javelin provides dismounted Infantrymen a surefire way to effectively kill tanks. The system's portability makes it the anti-armor weapon of choice for light early entry forces. It has an extremely high probability kill rate against enemy armor and is effective out to 2,500 meters.<sup>3</sup>



**JAVELIN COURSE  
MODULE DESCRIPTION**

**Module 1: Introduction to the Course.** Includes instruction on the following: Javelin Weapon System, the CLU, Javelin rounds, operations, and the capabilities and features of the system.

**Module 2: Safety.** Includes instruction on the following: Backblast area, round handling and care, doctrine fighting positions, and risk management and mitigation.

**Module 3: Controls and Operation.** Includes instruction on the following: Controls and indicators, CLU status and display indicators, preparation for firing, firing positions, restore to carrying configuration, and carrying techniques.

**Module 4: Tactical Considerations.** Includes instruction on the following: Tactical role and fundamentals, defense, advanced fighting positions, tactical operations, and target engagement techniques.

**Module 5: Standard Range Card.** Includes instruction on the following: Prepping a range card, sector sketch, general procedures, and field expedient card.

**Module 6: Warning Indicators and Malfunctions.**

**Module 7: Training Program.** This modified module will conduct testing to check gunner's knowledge.

**Figure 1 — Home-Station Javelin Course Description**

First used in combat during the invasion of Iraq in 2003, the Javelin was effective at destroying T-72 and Type 69 tanks. In one engagement, a Special Forces Operational Detachment-Alpha (ODA) destroyed two T-55 tanks, eight armored personnel carriers, and four troop trucks with the Javelin.<sup>4</sup> As the wars in Iraq and Afghanistan transitioned to COIN operations, use of the Javelin transitioned from an anti-armor weapon to a surveillance optic due to the Javelin's thermal Command Launch Unit (CLU). The CLU employed without the launch tube assembly and Javelin missile is an outstanding optic in observation post operations. Based on solely using the CLU in surveillance operations in recent years, most Javelin gunners lacked experience at employing the Javelin in defeating enemy armor.

### **Home-Station Javelin Training Prior to NTC**

The 1st Battalion, 23rd Infantry Regiment staff recognized the importance of building proficiency with the Javelin prior to the NTC rotation and created a home-station anti-armor course to prepare for the hybrid threat the unit would face at NTC 14-03. Using the eight-step training model, we developed a four-day program of instruction (POI) to teach designated battalion personnel how to employ and operate the Javelin prior to the NTC rotation. We utilized a four-man team of NCOs who had graduated from the Heavy Weapons Leader Course at Fort Benning as instructors.

This block of instruction covered employment and troubleshooting of the system. Specifically for the NTC, we spent a large portion of the POI teaching how to employ



Photos courtesy of authors

*Soldiers from the 1st Battalion, 23rd Infantry Regiment train on the use of the Javelin during home-station training.*

the Multiple Integrated Laser Engagement System (MILES) version of the system. Through the use of the Training Audiovisual Support Center (TASC) Javelin Basic Skills Trainer (JBST) and Field Tactical Trainer (FTT), we were able to allow Javelin firers to shoot at targets and receive feedback on their performance.

Four designated instructors were able to train 40 Javelin operators during the course, providing each company (including our Headquarters and Headquarters Company) the ability to employ Javelins at NTC. The anti-armor POI gave designated Javelin operators eight hours of hands-on training time.

### **Use of the Javelin at NTC 14-03**

The employment of the M98A2 using the FTT proved to be a critical asset for the battalion during the force-on-force scenario of NTC rotation 14-03. The FTT is a fully integrated, three-dimensional force-on-force training device consisting of a simulated round, a battery charger, and batteries. The round incorporates a MILES laser transmitter to allow simulated Javelin engagements during training exercises. The FTT is designed to simulate the Javelin's operational and engagement parameters. The battalion was able to destroy enemy mechanized elements at distances of 1,500-2,000 meters away from positions of dominant terrain with a clear line of sight. Trained Soldiers were able to achieve a 50-percent kill ratio on enemy armored vehicles in both offensive and defensive operations. While 50 percent is low, it was in real-world battlefield conditions with Infantrymen climbing up significant terrain to achieve effects against enemy armor.

The key to the employment of the M98A2 was the use of movement and maneuver of the Stryker vehicles and the dismounted Infantry. NTC's vast open terrain allowed for the employment of weapon systems at their maximum

effective ranges. This required a "push and pull" technique between dismounted and mounted Infantry Soldiers. The Stryker platoons would dismount Infantry squads and "push" them forward, utilizing the Strykers' remote weapon systems to cover their movement. The dismounted squads seized dominant terrain, established hasty support-by-fire positions using Javelins, and provided overwatch for the Strykers as they "pulled" forward. The "push and pull" technique allowed the battalion to defeat enemy armor by maneuvering the dismounted Infantry with Javelins to positions of advantage and overwatch the movement of vehicles as they bounded forward. This technique requires a thorough terrain analysis by the battalion staff during the military decision-making process and the company leadership during troop leading procedures in order to maximize the usage of the terrain available.

During Battle Period 4 of NTC 14-03, we found ourselves attacking into an enemy armored formation defending key terrain in vicinity of the Arrowhead and Alpha/Bravo Pass. We had to maneuver to Refrigerator Gap and conduct a breach of enemy obstacles to pass elements of the brigade onto their objective. The terrain was not the most suitable place to maneuver Strykers as it was restrictive or severely restrictive in nature. Based on the posture of the enemy, we recognized we would have to employ the "push and pull" technique described above. Our rifle companies deliberately cleared mountainous terrain dismounted en-route to their objective and only moved vehicles forward once overwatch positions with Javelins were established. While this technique took extended time to execute, it enabled our battalion to destroy 10 armored vehicles before reaching our objective.

### **Incorporating Lessons Learned**

The 1-23 IN returned home from NTC rotation 14-03 with

many lessons learned, but one of the biggest lessons at the tactical level was that dismounted Infantryman employing Javelins in the right terrain can hold their own against enemy armor. As we move into our next training path, Javelin training needs to be more deliberately integrated at the individual through collective training levels. Our leader development program needs to incorporate these lessons learned so that we can coach junior leaders on the tactical deployment of the Javelin in the SBCT as it pertains to terrain.

Our battalion recognized that training 40 Javelin operators was insufficient for NTC, considering the lethality of the system against a near-peer threat utilizing armor. Units should maximize the ability to send one to two weapons squad leaders per company to the Heavy Weapons Leaders Course at Fort Benning (<http://www.benning.army.mil/infantry/197th/229/HWLC/>). This course trains Soldiers in the rank of sergeant through lieutenant on the tactical employment of an anti-armor platoon and technical proficiency of the Javelin, Improved Target Acquisition System (ITAS) and heavy machine guns while operating in a decentralized competitive environment. Having this expertise resident in the squad gives a rifle battalion the ability to train proficiency on the Javelin for all Soldiers in the formation.

Additionally, training with the JBST and FTT should be conducted prior to maneuver situational training exercises (STX) and live-fire exercises (LFX) through courses like the described home-station Javelin POI. Doing so allows junior leaders to employ Javelin assets at the squad and platoon levels during STX and LFX training. Finally, Javelin training should culminate in the employment of live Javelins (if resourced) during the platoon/company combined-arms maneuver LFX.

### Way Forward

In closing, through the combined employment of indirect fires of the M777 and the armor defeating capabilities of the ATGM company, the Stryker MGS, and M98A2 Javelin, the SBCT is capable of defeating any armor threat the U.S. military could face. Thus, more emphasis should be

directed to the training of the anti-armor weapon systems that the dismounted Infantry Soldiers employ. The SBCT is the “ready and modern” force that the Army needs as it continues to transition to a globally responsive Army and has proven in combat and training simulation to be a versatile and lethal tool for combatant commanders to utilize in any operational environment.<sup>5</sup>

The SBCT must continue to maximize the employment of the Javelin by training Soldiers and leaders on the operations and employment of the system. The Javelin provides the Stryker the necessary punch to defeat armored formations. The use of the “push and pull” technique between the dismounted and mounted Infantry should be a unit standard when dealing with an armored threat in restrictive terrain. Platoons and sections should be able to execute the “push and pull” technique to the same proficiency as the bounding overwatch.

### Notes

<sup>1</sup> Army Doctrine Reference Publication 3-0, *Unified Land Operations* (Washington, D.C.: Department of the Army, 2012): 2-2.

<sup>2</sup> Field Manual 3-21.31, *The Stryker Brigade Combat Team* (Washington, D.C.: Department of the Army, 2003): 1-15.

<sup>3</sup> “Javelin Portable Anti-Tank Missile,” <http://www.army-technology.com/projects/javelin>.

<sup>4</sup> Thom Shanker, “The Struggle for Iraq: Combat; How Green Berets Beat the Odds at an Iraq Alamo,” *The New York Times*, 22 September 2013.

<sup>5</sup> GEN Raymond Odierno, “CSA Strategic Waypoint 2,” U.S. Army website: [www.army.mil/article/118873\\_Waypoint\\_2\\_Follow\\_Up\\_to\\_CSA\\_s\\_Marching\\_Orders](http://www.army.mil/article/118873_Waypoint_2_Follow_Up_to_CSA_s_Marching_Orders), 13 March 2014.

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Figure 2 — Example Javelin Training Plan

