Sustainment Battalion Convoy Protection Platform Gunnery

BY CAPTAIN TIFFINEY N. BROOKS

Sustainment units often must provide their own protection for supply convoys but seldom are trained to do so. Using a new convoy protection training circular, the 49th Transportation Battalion (Movement Control) conducted gunnery training before deploying to Afghanistan.

A gunnery crew returns from the range after completing a gunnery table.

On today's battlefield, sustainment organizations with minimal self-defense capabilities are often exposed to direct combat. These organizations often lack sufficient training to ensure their survivability. Although convoy protection platforms (CPPs) are not new to the military, sustainment units are now beginning to establish and execute doctrine on how to use whatever platforms are available to successfully engage threats.

In April 2010, the Army Combined Arms Support Command released Training Circular (TC) 4–11.46, Convoy Protection Platform Gunnery, which outlines specific training requirements for sustainment units. Although this manual provides sustainment units with a great foundation for training convoy protection crews and certifying convoy protection platforms, it provides little detail regarding the execution of higher-level gunnery tables (GTs), such as section gunnery. TC 3–20.21.1, Individual and Crew Live-Fire Prerequisite Testing, and Field Manual (FM) 3–20.21, Heavy Brigade Combat Team (HBCT) Gunnery, complement TC 4–11.46, especially for planning and executing section gunnery (GTs VII to IX).

The gunnery program enables sustainment units to train and deploy convoy escort teams (CETs) with CPPs. Program participants become more proficient at implementing tactical procedures for direct combat using their assigned weapons to survive in any area of operations. The training enables CPPs to bring intense, accurate, and deadly fire on enemy targets.

The vehicle gunnery crew (VGC) gunnery program should be divided into four phases—preliminary, basic, intermediate, and advanced gunnery—in order to develop individual Soldiers and VGCs in a progressive manner. They should be sequenced to provide quality VGCs within resource constraints. Successful completion of all gunnery phases prepares the unit for a section gunnery that is an exercise intended for platoon-sized elements. (A section is made up of two CPPs.)

Convoy Protection Platforms

A CPP is one VGC, typically consisting of a driver, vehicle commander, and gunner. It is crucial for this crew to maintain its integrity throughout the training and gunnery execution process so that it can develop as a whole, maintain continuity, and allow the vehicle commander to develop and maintain mission command. Crews are regarded as VGCs until they successfully complete the basic gunnery phase and have qualified on GTs I through VI. After successfully completing the gunnery skills test (GST), GT I, GT II, GT III, GT V, and GT VI, the crew becomes a certified CPP.

To provide a level of stabilization that facilitates an accurate shoot-on-the-move capability, a CPP uses vehicles that have mounted crew-served weapons without fire-control systems.

Convoy Escort Team

A CET is made up of at least four CPPs. These crews are groomed to function as one cohesive unit dedicated to protecting the force and ensuring the success and safety of the mission. This entails more than just going out to the range 1 day and firing a few bullets. The certifying event for CETs is the section gunnery.

Planning

The key to a successful gunnery is adequate preparation, effective presentation, practice, and thorough evaluation. Because of the challenge of coordinating gunnery training requirements (such as forecasting ammunition 90 days out and requesting facilities and training aids) with the available resources, the planning process should begin at least 6 months before the execution of the gunnery. The necessary resources, such as facilities, training products, simulators, ammunition, and any other resource critical to the execution of the gunnery, should be acquired as soon as possible. Coordination should be continuous from long-range planning through short-range and near-term planning and training execution.

The senior or master gunner should be at the forefront of the planning process. When planning the gunnery, the senior gunner is the most valuable asset. The senior gunner is a key player in gunnery training because he serves as the subject-matter expert.

Training Plan

The master gunner and the gunnery officer-in-charge (OIC) should create a gunnery training plan 6 months before execution, if possible. The training plan will allow the unit to maintain a consistent mission focus, coordinate with task-organized supporting organizations, and focus on the correct timeline. The 8-step training model (plan, develop an operation order, teach, perform a reconnaissance, rehearse, execute, conduct an after-action review, and re-execute) should be used.

A sample 6-month gunnery training schedule follows.

6 months out. Conduct senior gunner certification, and begin the planning process, to include acquiring resources, forecasting ammunition needs, and conducting simulator training.

5 months out. Conduct preliminary marksmanship training and qualification, and conduct diagnostic GST and GT I simulator training.

4 months out. Conduct classroom instruction, driver's training, and simulator training, and tentatively schedule range maneuver areas and training devices.

A gunnery crew conducts after-action review.

3 months out. Conduct record GST and GT I simulator training.

2 months out. Conduct GST and GT I simulator training (gateway to the live-fire table), and lock in use of range maneuver areas and training devices.

1 month out. Conduct OIC, vehicle crew evaluator (VCE), and range safety officer certification and GT II simulator training.

Proper planning allows for tough, realistic, and intellectually and physically challenging gunnery training. Realistic gunnery training will build competence and confidence by developing and honing skills while inspiring excellence by fostering initiative, enthusiasm, and eagerness to learn.

Preliminary Gunnery Phase

Training for gunnery is conducted in four phases and encompasses individual and collective training. The first phase is the preliminary phase, which includes the GST and GTs I and II. During this phase, individual Soldiers and VGCs are trained using classroom instruction, simulators or virtual training, and home-station training.

Simulators are essential in the "walk" phase of the gunnery. They are used most during the GST and GT I. Simulators provide realistic training and serve as a platform for the training and evaluation of the GST. The GST evaluates each crew member's ability to execute selected gunnery-related skills, and GT I evaluates the entire vehicle crew's ability to execute selected tasks. (A list of the required tasks can be found in TC 4–11.46.)

Simulators such as the Warrior Skills Trainer (WST) and Close Combat Tactical Trainer (CCTT) allow crews to build the confidence and muscle memory needed to be successful in the live-fire execution. At the simulators, the crews start to see the culmination of all the individual and collective tasks they have trained on thus far. These simulators provide an opportunity for crews to conduct vehicle-mounted combat tasks in a virtual environment. The CCTT and WST can serve as the final gateway for crews moving forward to a live-fire gunnery range.

The 49th Transportation Battalion (Movement Control) developed a training and evaluation standard that served as a tool to determine if a crew was ready to move from simulation to blanks and live fire. The battalion saw a positive correlation between the amount of time a crew spent at the simulators and their success during live fire.

The purpose of GT II, or the crew proficiency course, is to prepare the VGC for live-fire qualification. VCEs must consider the VGC's ability to determine the engagement time to quickly engage threat targets in order to successfully complete GT II and proceed to GT III, the basic gunnery phase.

Gunnery Phases

The basic gunnery phase encompasses GTs III through VI and develops skills learned in the preliminary gunnery phase. This is the first time VGCs fire live ammunition from their respective vehicle platforms. During GT VI, crews are certified as CPPs in order to transition to the intermediate gunnery phase.

The intermediate gunnery phase is also referred to as section gunnery. This phase includes tables VII to IX and develops coordination, fire distribution, and control during section practice (GT IX).

The next phase of gunnery is the advanced phase. Its purpose is to develop coordination and fire distribution and control during convoy and CET qualification (GT XII) and base defense operations.

After successful completion of the basic, intermediate, and advanced gunnery phases, commanders can elect to conduct collective gunnery. Collective gunnery is comprised of the intermediate and advanced gunnery phases. Collective GTs (IX and XII) are designed to test the unit's and leader's ability to take knowledge learned from previous GTs and apply it to tactical combat scenarios at the section-, platoon-, and company-team levels. The 49th Transportation Battalion did not conduct the collective gunnery phase.

Scoring

Three different forms are used to document all training and ultimately factor scores from each gunnery table. These results should be maintained and compiled to determine statistics and unit weaknesses. The statistics help to develop future firing scenarios and are maintained by the master gunner, small arms master gunner, or senior gunner.

VCEs must consider multiple factors when scoring a VGC, including the different timing matrices based on the vehicles' posture (defensive or offensive). To successfully complete a GT, crews must score at least 700 points in 7 engagements on the respective table. To qualify on an engagement, crews must score at least 70 points on that engagement after any deductions.

Ammunition Allocation

Determining the total amount of ammunition needed for gunnery training can prove to be quite a challenge. Ammunition requests are based on firing scenarios. TC 4–11.46 provides Department of the Army Pamphlet (DA Pam) 350–38, Standards in Training Commission, as a reference for determining how much ammunition is needed for gunnery training.

DA Pam 350–38 allocates 1,500 rounds for gunnery qualification all the way through the advanced phase. However, FM 3–20.21 allots 2,450 rounds just for the basic phase. Furthermore, the HBCT gunnery manual allocates 50 rounds per target. The TC does not break down the number of rounds per target.

Since sustainment units can only engage two targets per engagement, they are limited to 100 rounds per engagement. There are a total of ten engagements per GT. The 49th Transportation Battalion requested 4,000 rounds per crew in consideration of the possibility of crews having to re-engage one or more tables. The battalion experienced no ammunition shortages or large excess with this forecast.

The 49th Transportation Battalion's Experience

Because of the high operating tempo for sustainment units, it is imperative that gunnery be a battalion-level event. Balancing the gunnery training requirements and garrison mission requirements is quite a challenge. Therefore, it is important for the battalion section responsible for the training (usually S–3) to work closely with the unit commander and first sergeant.

I recommend qualifying only 6 to 8 crews at a time. However, the 49th Transportation Battalion was faced with the challenge of training and certifying 24 crews. Six weeks were allocated for the gunnery, and 5 of those weeks were dedicated to crew certification on GTs II, III, V, and VI. Approximately eight crews per week went through certification. One week was dedicated to section gunnery for CET certification.

Preparing for the Gunnery Range

Each unit of the battalion being certified was provided with a detailed training plan created by the master gunner and gunnery OIC. The plan included collective and individual tasks, a training calendar, and a timeline with gates (suspenses) by which certain training or tasks had to be completed based on the battalion commander's intent. The unit was also given a suspense to provide the names of the crews to the battalion. After that suspense, all crew changes had to be approved by the battalion commander.

The unit was responsible for updating its training plan and ensuring that everything was entered into the Digital Training Management System. The unit was required to provide the master gunner with the exact date and time it would be executing the training so that he could oversee it; the master gunner would be present at all live-fire range events.

The unit was also responsible for training itself with the assistance of the master gunner. The battalion coordinated driver's training, high-mobility multipurpose wheeled vehicle egress training, weapons qualification on tripod, and weapons familiarization with the weapons mounted on the vehicle.

At the same time, the gunnery OIC and master gunner identified the range detail requirements, including the VCEs. Approximately 30 days before the gunnery started, the master gunner began training the VCEs. Two weeks before the gunnery started, the VCEs were assigned to the CCTT and WST simulation training. At this time, the VCEs began to make their first assessment, using the CCTT and WST evaluation created by the 49th Transportation Battalion. This also allowed the VCEs to see how a crew functions as a VGC. It allowed the VCEs to identify potential risks and make necessary adjustments before live fire.

Preparation of Crews

For crews to move on to the standard GT II set forth by TC 4–11.46, a virtual qualification had to be created; it had to have an evaluation form to capture the standards necessary to meet the virtual trainer certification. The qualification guidelines closely paralleled those of the actual live-fire GTs. The only major difference was that the tasks were not timed because the virtual trainer was available to accommodate gunnery for sustainment units. However, the evaluation form that was created for sustainment units contained all the criteria that the live-fire tables have by task.

The guidelines were that the crews had to meet the minimum proficiency levels outlined in the TC for 10 tasks, including vehicle commander engagements, defensive and offensive engagements, moving targets, short halts, a short-range engagement, and a long-range engagement. Other conditions evaluated were the defilade and enfilade, the proper commands given, and the timeliness from the last command given by the tower to the termination command given by the vehicle commander. Once the evaluation form was created, the VCEs were trained on how to use it and were evaluated on its

Brigadier General Terance J. Hildner awards Soldiers with a coin in recognition of a job well done on their gunnery training.

use for 2 days for a total of approximately 16 hours.

The only obstacle that was not resolved was that the virtual trainer was not tailored to sustainment unit gunnery. This obstacle included the system's lack of scenarios with the capability of tracking the open and close times, delay times, defilade and enfilade times, and moving targets.

Crew Qualification

Successfully certifying all of the crews on all GTs required many personnel and much effort by everyone involved. The success of the gunnery depended on the careful planning and staging of all training required to qualify the crews for the life-fire GTs. This involved careful selection of the right tasks to train on, weapons to be used, the right resources, and most importantly, time management.

Another important element was the leaders (master gunner, gunnery OIC, range OIC, range noncommissioned officer-in-charge [NCOIC], company commander, first sergeant, and executive officer) conducting in-process reviews to ensure that all that was needed was being acquired. This also included selecting the right range OIC, NCOIC, and safety officer to put the range in motion. Once that was accomplished, all that was needed was for the crews to be present at all of the training and be certified in the respective GST and GT I tasks.

Getting Started

Week 1 of gunnery began with eight crews. While these 8 crews were executing GTs II, III, V, and VI, the remaining 16 crews continued to go through simulation training. It was important for all crews to remain focused on gunnery until completion, and because of time constraints, it was imperative that the other crews be ready to replace a crew should a crew not be able to complete the gunnery.

Despite prior planning, week 1 had a slow start because the vehicle platforms were not ready on time for pickup. This had a large effect on the gunnery because it affected the battalion S–6 section's ability to ensure that all requested communications equipment was with the vehicles, fully mission capable, and compatible with the range radios prior to gunnery execution. During the first couple of days of gunnery, several communication issues led to a mandatory cease-fire until the issues could be resolved. This affected the crews' momentum and confidence and resulted in several hours of lost training time. It also affected the master gunner's ability to proof the range one last time with the platforms before gunnery execution.

Gunnery Table II

Once the issues with the vehicles and communication were resolved, crews began GT II, dry fire. Crews transitioned from GT II to GT III, live fire, when the VCEs and the master gunner were confident that the crews were proficient in identifying and engaging targets using the proper firing commands while conducting short halts.

The gunner (and vehicle commander when they were firing) was evaluated on his ability to transition the weapon to appropriate sectors of fire in order to prevent friendly fire and accurately engage enemy targets. Drivers were evaluated on their ability to maneuver the vehicle safely throughout the course and from enfilade and defilade positions.

Once the master gunner was confident that the crews were proficient in these skill sets, the crews transitioned to live fire. All crews successfully completed GT II.

Gunnery Table III

GT III proved to be the most difficult table for most of the crews. During week 1, none of the 24 crews received a Q1 (qualification the first time through) and only 8 of the 24 crews receive a Q2 (qualification the second time through). During the second time through, crews only fired the engagements on which they had not qualified.

Subsequent crews were required to re-engage the entire table, and they did so successfully. I believe the crews had the most difficulty with this table because it was the first time that they had to put all the skills they had learned together with the difficult task of quickly engaging actual targets, including some that were moving. The crews that achieved a Q2 on GT III did very well, with scores ranging from 743 points in 8 engagements to 887 points in 9 engagements.

Gunnery Tables V and VI

Despite GT V having a more difficult scenario, with further targets and more moving targets, this was by far the crews' best table. By GT V, the crews' confidence was up and their skill sets were well developed, leading to outstanding scores. Five crews achieved a Q1, with scores ranging from 750 points in 7 engagements to 935 points in 10 engagements. Eleven crews achieved a Q2, with scores ranging from 712 points in 7 engagements to 960 points in 10 engagements.

The crews were also very successful on GT VI, with 6 crews obtaining a Q1 qualification and 11 crews qualifying Q2. Four of the crews surpassed the sustainment unit crew record that was held by a crew in a sister battalion. The Q1 scores for GT VI ranged from 721 points in 7 engagements to 864 points in 9 engagements. The scores of the 11 crews who obtained Q2 scores on table VI ranged from 742 points in 8 engagements to 864 points in 9 engagements.

Section Gunnery

Section gunnery is no more than a lanes evaluation culminating with a certifying live-fire exercise. The tasks are selected based on the unit's mission-essential task list or mission to be conducted if deploying. Once the tasks are selected, the training is set up for those specific tasks and trained accordingly.

The overall section certification is based on a two-part evaluation. One part covers the tasks that have been selected for certification and are evaluated in a T (trained), P (needs practice), U (untrained) evaluation format. The other part covers live-fire certification and is based on the same minimum proficiency levels as the crew gunnery, with a four- or five-vehicle section participating as the CET. The only difference is that the CET commander assigns the sectors of fire and authorizes the crews to fire within those sectors upon enemy contact.

The scoring is based on the number of targets presented and the number of targets hit. The baseline for the target scoring requires that 50 percent of the targets engaged must be hit. This percentage is then added to the T, P, U evaluation. The section must have a total of at least 70 percent for the evaluated tasks and targets hit.

The 49th Transportation Battalion was the first sustainment unit to complete section gunnery. The battalion's section gunnery consisted of five sections with four to five CPPs in each section. The evaluation began with the unit commander being alerted through a notification sequence from his higher echelon (the battalion S–3 section). Each section had a set time that it was to be at the motor pool with 100-percent accountability to receive further guidance.

The evaluators (two captains and one major, since evaluators had to be at least the same rank as the company commander) met the sections at the motor pool where the assessment would begin. The evaluators issued an operation order to the section commander, who in turn conducted a convoy brief using a sandtable. The section commander was evaluated on his troop-leading procedures. Once that phase was complete, the section conducted a tactical road march (which was several miles) to the section gunnery range. The section was still being evaluated by the evaluator, who rode in the vehicle with the section commander.

After arriving at the section gunnery range, the evaluation process paused so that crews could receive a safety brief and get oriented to the range and so vehicle safeties could enter each vehicle. The evaluator served as the safety in the section commander's vehicle. After the safety brief, the crews mounted their vehicles and the evaluation process continued. The crews drew their ammunition and executed the live-fire portion of GT IX.

After the live-fire portion, the safeties cleared the weapons and the section conducted a final situational training exercise lane, where they were evaluated on selected battle drills and reports. All five sections successfully completed GT IX.

Crew gunnery is a long, drawn-out process that requires extensive planning and preparation. However, if it is done according to the TC guidelines, any unit can conduct it to standard. The 49th Transportation Battalion never deviated from the TC. It conducted the gunnery the way every unit should.

Captain Tiffiney N. Brooks is the movement control officer for the 49th Transportation Battalion (Movement Control) at Fort Hood, Texas. She holds a B.S. degree in marketing from Georgia Southwestern State University and an M.B.A. degree from the University of Phoenix. She is a graduate of the Army Officer Candidate School and the Army Transportation Basic Officer Leader Course.