

force and the breach. This COA may look like Figure 4. This configuration allows the support force to truly suppress the breach (the area, in fact) that needs suppressing. Because it is closer to the breach command and control is easier, which makes the shift-fire decision easier to execute.

The decision that now must be made is where the close-in support element, a part of the breach force (as shown in Figure 5), stops and the actual support force begins (see FM 7-20, p. 3-29). The close-in support element works directly for the breach force, as opposed to supporting it. If the obstacle is lightly defended or the area is very restrictive, a close-in support element may be all that is needed. If so, the support force, or a

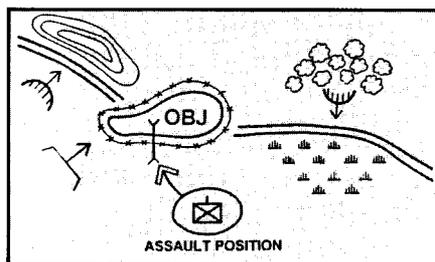


Figure 5

large part of it, can concentrate on isolating the objective as a whole. FM 7-10 recognizes that in some cases external units may be adequately supporting the attack and that a company support element is optional, depending on the conditions of METT-T.

My suggestion (Figure 5) is a COA that shows ambushes to isolate the ob-

jective, and a support position adjacent to the breach. Nonetheless, the 90-degree COA persists in IOAC and elsewhere. In my opinion, a better COA is right under our noses in FM 7-10. I recommend we change our mindset to consider concentrating our combat power at the breach instead of diffusing it elsewhere, and limit the 90-degree COA to those conditions under which it is the only viable course of action.

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Bradley Gunnery Standardization Yields Stability

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A Bradley gunnery crew is most effective when each member knows precisely what his job is in relation to the jobs of the others. Conventional wisdom with respect to Bradley gunnery assumes that the only way to achieve a high level of crew proficiency is to stabilize members by keeping them together for as long as possible—in short, battle rostering.

Battle rostering is one way to achieve crew stability, and most would argue that stability leads to killer crews and successful gunneries. To achieve stability, a commander must match the permanent change of station dates of the Bradley commander (BC), gunner, and driver. But circumstances beyond

the control of commanders often prohibit crew stabilization. In peacetime, an unforeseen levy, injury, or emergency leave can have commanders scrambling to put crews together. In wartime, what happens when a crew member is injured or killed? Can the unit capitalize on the experience of the remaining crew members without a resource-intensive train-up period? If all the crews in the task force have been trained exactly the same way, the answer is “Yes!”

Since January 1993, the 1st Battalion, 18th Infantry, has fired three gunneries—the first two on the multipurpose range complex at Fort Stewart, Georgia, and the third on Carmouche Range at Fort Benning. The

battalion average was more than 900 points for all three gunneries, under both adverse and favorable weather conditions. External Bradley crew evaluations (BCEs) and computer scoring were used in all of these gunneries, and all the crews in the battalion were trained using the same gunnery program. In short, it was standardized.

The argument for standardization is an old one. Soldiers trained to the same standard with respect to scanning techniques, target acquisition, crew checks, and the like, can attain peak proficiency because a common standard for coaching and evaluation is created. Initially, no two crews are alike, but a common gunnery program

enables unit commanders to assess the strengths and weaknesses of particular crews against a common standard. New gunners may need more work on the Bradley Gunnery Skills Test (BGST). More experienced crews may need only to focus on crew coordination. In the final analysis, a standard or common structure of expectations must be created within the crew. Each crew member knows his job and is able to achieve proficiency because every commander, platoon leader, and section sergeant also knows his job and can ensure that that crewman is trained to a clearly defined standard.

Crew stabilization can be defined as a well-integrated team consisting of a BC, gunner, and driver who have qualified on Bradley Table VIII within the past six months, and who are capable of coordinated action toward a common objective. The objective in this case is to kill the enemy or, in gunnery terms, destroy the target within the prescribed time using the allocated ammunition without any crew cuts. How well a unit stabilizes Bradley crews, keeps them stabilized, and adjusts to unforeseen turbulence is a training management issue that is contingent on standardization. We are concerned here with adjusting to unforeseen turbulence. We want to reduce the amount of training needed when we are forced to reconfigure crews.

Standardization can be defined as the performance criteria a crew must achieve to execute a task successfully. The gunnery standards must be clear, practical, realistic, uniformly known and understood, and enforced.

It follows, then, that both a qualitative and a quantitative increase in crew training standardization should result in a proportional decrease in the amount of time and resources it takes to train and stabilize a crew. The need for stabilization is based on the assumption that the longer the crew works together the better they will be at killing the enemy. This assumption may be true, but how true?

In early 1994, the 1st Battalion, 18th Infantry, set out to test the standardization-stabilization hypothesis. Four crews were randomly selected from

four different companies and ordered to show up on the range prepared to shoot Bradley Table VIII. All four crews had just completed the table the previous week, and their scores ranged from 944 points for one company to 1,000 points each for the other three. Twenty minutes before firing, the gunners, BCs, and drivers were randomly slotted to form composite crews. There was no time for train-up or for crew stabilization in the classic sense. The crews were to go down range and shoot the table "as is," replacing the crews of two unfamiliar vehicles.

Although disaster and chaos could have resulted under ordinary circumstances, the results of this test seem to indicate that a standardized battalion gunnery program has merit. The final results were that two crews scored 1,000 points each, one 826 points, and the fourth 850 points. The original crews averaged 986 points, while the composite crews averaged 919 points, or about a seven percent decrease.

The composite crews were asked several questions after finishing their Bradley Table VIII. It is interesting to note that within each crew, the gunner controlled the ammunition selection while the BCs supervised. All the gunners initially had problems adjusting to their drivers, particularly the way they started and stopped during offensive engagements. Platform stability seemed to be a consistent problem. All but 50 of the points lost were during offensive engagements at night. Additionally, the reason the targets were missed in all cases was that the crews came off the target too early. On two occasions, two of the crews experienced misfires. Both times, the crews applied immediate action and successfully engaged the targets. In all instances, the crews said that they felt comfortable with each other and that each crew member knew exactly what was expected of him. All but one of the crew members said he felt comfortable going into combat with his composite crew "as is" with no train-up.

From this test, we cannot make a definitive generalization concerning how much standardization affects a

crew's ability to acquire and engage targets. Other factors, such as weather and the crews' familiarity with the range, would need to be isolated and considered. Neither is it possible to cover the battalion's gunnery program in detail. Nevertheless, the following tips may prove useful:

Crew Checks. If crew checks are done before each engagement, such crew-induced errors as ammunition and range selection can be prevented. These checks reemphasize who is responsible for what within the crew. A list of crew checks should be pasted inside the turrets and driver compartments.

Command Emphasis. This emphasis is critical to a successful gunnery, because no two crews are alike. Commanders must assess the strengths and weaknesses of particular crews and tailor training to improve those weaknesses. New gunners require more emphasis on BGST training. The more experienced and stable crews may need only to focus on crew coordination, and they can be used to assist the less experienced crews.

BGST. The BGST requires at least five days to conduct properly—three days for train-up and one day for the test. A retest day should also be scheduled. Master gunners should be consolidated at company level to ensure standardization. Additionally, each platoon should have a "priority day" when it is the focus of all the company master gunners. BGST should be conducted within a 30-day window before gunnery. It is important to "peak" in BGST so the hands-on skills are fresh before hitting the range.

Instructor-Operator (IO) and BCE Courses. These courses need to be conducted at least 60 days before gunnery. Qualified dismounts and alternate crew members are useful in this respect. Numerous IO and BCE qualified personnel are needed during preliminary gunnery. Using the same personnel over and over causes burn-out and reduces the effectiveness of training evaluation.

Conduct-of-Fire Trainer (COFT). The COFT is a seven-day-a-week, 24-hour-a-day effort. The foundation for a successful gunnery is Reticule Aim

(RA) 28/14, and an average crew can achieve it in less than 20 hours. Two-hour sessions are optimal. If crews can certify RA 28/14 one to two weeks before a gunnery, crew drill and coordination will still be sharp. Training should peak so that sustainment exercises are conducted for no more than two weeks before gunnery.

Driver Certification. Certification is continual and should be complete at least 30 days before a gunnery. Three additional driver tasks should be integrated into crew coordination—achieving a stable firing platform, counting rounds, and identifying targets. Drivers need to be present for all gunnery training.

Classroom Instruction. Classes given by company and platoon master gunners are useful, particularly classes on engagement, scanning, and lead techniques. It is also important to cover scoring procedures and range strategy; for example, on which engagements to save rounds, such as the area troops. Additionally, a written examination on the classroom instruction should be administered. Crews should be tested until they receive a passing score. All crews should know the task, condition, and standard of each engagement.

The Bradley Crew Proficiency Course (BCPC). The BCPC is an opportunity to tie everything together and identify shortcomings not evident in the COFT or the classroom. Fire com-

mands should be closely evaluated and crew cuts strictly enforced. There is no substitute for climbing in a Bradley and executing a gunnery table, even if it's only a dry fire. Communication deficiencies should also be identified and corrected at this time. Three or four BCPCs should be run, beginning two to three months before a gunnery. Getting the crews in the turret helps get them range smart.

Incentives. Incentives for good performance are critical to success. For example, the first crew to achieve RA 28/14 gets a three-day pass, and distinguished crews get Army Achievement Medals or certificates.

Other tips:

- Physically zero the 25mm gun and the coaxial machinegun using the day, night, and auxiliary sights.
- All crew checks must be hands-on verification. (Say it, see it, touch it.)
- Have the gunner describe the engagement to the BC before executing it.
- Use misfire procedures during concurrent training.
- During the day phase, ensure that thermals are cooled down and ready.
- Keep a rag handy for wiping the dust and grime off the optics.
- Strive for a 1-3-4 or 1-4-3 round burst, even when simulating during BCPC.
- Try to kill the target in five rounds (25mm) in the defense, 1-4 burst, and

conserve ammunition.

- Crews should get a communications check with the spotter/tower and must clearly hear both.
- Remember when scanning to position the horizon line to show two-thirds ground and one-third sky.
- Use the sensing round as it is intended, and adjust from it.
- Use target forms when adjusting the gunner on target.
- Have everyone zero on center of mass without exception.
- Post a diagram for coaxial machinegun zero adjustment on the coax door.

Some crew personnel turbulence is inevitable, but commanders can reduce the effects of crew turbulence through a standardized gunnery program. Given the best equipment and sound training, our soldiers can achieve excellence in gunnery time after time.

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A SIMNET Training Program

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As training budgets shrink, commanders are having to find innovative ways to train their units to combat readiness. They must train smarter and use all of the available resources.

One such resource is simulators,

which allow units to train without the expense of fuel, spare parts, and ammunition. Tank and Bradley crews have long used unit conduct-of-fire trainers (UCOFTs) to train crews for gunnery. The Army has these simulators

available to use in training collective tasks. One key device for platoons, companies, and battalions is the Simulation Network, or SIMNET.

As a Bradley company commander in the 3d Infantry Division, I always