

TRAINING NOTES



NET

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When a mechanized infantry battalion is scheduled to undergo Bradley new equipment training (NET), its everyday world changes from that day on. It may be helpful to the people in battalions that have this experience before them to look at the way another unit — the 2d Battalion, 41st Infantry, 2d Armored Division — went about dealing with these changes in its everyday world.

New equipment training on the Bradley includes more than just training on the equipment. The Bradley itself presents a significant challenge because it is more complex than the M113. The fact that the infantryman, in many situations, can now fight mounted all the way to the objective is also a new concept. In fact, all the changes the Bradley brings about work together to catapult today's mechanized infantryman into the Army of tomorrow.

The Bradley infantryman not only must continue to master the basic infantry skills, he must also master the skills required of a tank commander, which includes learning to effectively employ a vehicle equipped with cannon, missile, machinegun, rifles, and soldiers as part of a fighting system. It is this requirement, to marry the skills of two combat arms, more than any other, that makes the coming of the Bradley so significant and new equipment training so important.

NET actually starts long before the first day of training on the vehicle, and as in many other endeavors, the success of that training will depend largely upon the planning and preparation that precedes it. The planning requirements include the primary functional areas of personnel, logistics, and training (operations).

First, the battalion has to be converted to the Division 86 structure under the "J" Series MTOE. The addition of a fourth line company, the consolidation of various assets into the headquarters company, and the consolidation of all the Improved TOW Vehicles (ITVs) into the new Company E must all be planned for and executed quickly. Although this is not a great challenge internally, the overall effect of developing a headquarters company larger than that of some battalions, along with the attendant turmoil in personnel and logistics, does constitute a challenge.

In the case of our battalion (and the 1st Battalion, 41st Infantry as well), we were brought up above 100 percent MTOE strength in 11B and 63T soldiers (in preparation for training them as 11Ms and 63T D3s). But this was not the case in several other key MOSs (64C, 19D), and this created a requirement for the battalion to cross train 11Bs to fill these vacancies. We first decided to fill most of the 64C slots with short-term soldiers who

were either leaving the service or were going to units not equipped with the Bradley. We then filled the 64C slots that were still vacant with 11Bs who would also have to be trained as 11Ms, even while they performed their 64C primary duties.

This solution was not without its difficulties. Our conscious decision to fill the support platoon with short-term soldiers created a recurrent problem of turnover that could be resolved only with the influx of the required number of 64Cs. In addition, the 11B soldiers we had to assign to fill the vacancies in the scout platoon had to be trained on the Bradley to earn the 11M MOS. But this requirement to fill the scout platoon took away soldiers from the rifle platoons. The influx of excess 63Ts also posed unique problems.

Although the battalion was filled to 120 percent, this fill was mainly with Skill Level 1 soldiers direct from advanced individual training (AIT). Although these soldiers were well trained in their basic skills, they had neither the experience nor the rank required by the NET team for training. Therefore, we selected a number of high quality junior soldiers who could fill positions as NCOs on maintenance teams and who would therefore be eligible to receive the total system training normally given to NCOs.

This balancing of available re-

sources against increased requirements was a deliberate effort on our part, and it is something that all battalions converting to the Bradley system will have to face. In my opinion, this situation must be managed at the battalion level, because only there are its full effects felt, and only there can the inability of the personnel system to meet the stated requirements be addressed effectively.

Another personnel consideration that these battalions have to think about most carefully is the selection of vehicle teams. Although it may not appear that the battalions themselves can affect this process, they can, and they must, if they are to be successful.

Our battalion, in selecting vehicle team members (drivers, gunners, and vehicle commanders), used those physical and mental criteria we thought would produce successful crews — marksmanship scores, GT and CO (combat operations) scores, and the results of the gunner's physical exam. In the case of drivers, we let the company commanders use their own discretion in selecting good soldiers who had demonstrated the required mental quickness and mechanical aptitude. But the Bradley commanders and the gunners had to be selected according to our own stringent set of guidelines. For example, they had to have scored high Sharpshooter (27 or higher) on the tunnel "C" target, or Expert on a field firing range. We felt that there was a direct correlation between the abilities soldiers demonstrated in their rifle marksmanship training and those required for target acquisition, sight alignment, and firing adjustments with the Bradley.

We also established a standard GT score of 100 or higher for the commanders and gunners, thereby ensuring that the soldiers selected would be among the top 50 percent of all the soldiers in the Army. We used the CO score because it was the only test regularly given to soldiers that had any relationship to the manual skills (psychomotor abilities) required to employ the Bradley. Finally, we used the results of the gunner's physical

exam to ensure that our gunners were not color blind (especially in the red spectrum, which would limit their use of the thermal sights) and that they would be able to withstand the increased tension associated with gunnery.

Because of the limited number of NCOs initially available in the battalion to be Bradley commanders (BCs), our criteria could not be fully implemented when it came time to select BCs. Our selection of gunners however, was based solely on the criteria, regardless of rank. As a result, all but one of the BC/gunner teams remained constant throughout the training. (We had to replace one gunner during pre-gunnery training and he was not awarded the 11M MOS.)

By the end of our training program we had qualified 53 or our 54 crews. While this could be attributed partly to the training we gave our soldiers, we also feel that our method of selecting crews had a definite effect on the final results. Thus, it seems to us that other battalions that are going to take on the Bradley should establish specific crew selection criteria and follow through on the selection process. It also indicates that personnel managers at all levels must improve their selection methods when they are called on to assign soldiers to Bradley-equipped battalions.

LOGISTICS

The logistical challenges associated with pre-NET requirements, needless to say, also have to be accomplished with precision, and most of them require a long lead time to resolve.

For one thing, the current configuration of facilities that are normally available to an "H" Series battalion does not meet Division 86 requirements. The space needed to house a sixth company, for instance, will probably exceed the available resources. This means that planning must be done early to provide motor pool space for maintenance and parking for 31 more (and larger) vehicles and for office space, arms rooms, and

all other areas required for the normal life support of the unit.

These logistical problems can loom even larger because of the need to turn in equipment and to accept a large amount of new equipment. All of these tasks must be accomplished before training starts if commanders are to concentrate on the training itself, and the battalions must monitor their own needs closely and make their higher headquarters aware of those needs.

TRAINING ASPECTS

As for the training aspects of the pre-NET program, these should be designed to ensure that the required infantry skills are maintained during the period between the turn-in of the M113s and the receipt of the Bradleys. Infantry battalions have an advantage over armor units in this regard since most basic infantry skills are not dependent on vehicles. Thus, individual and crew-served weapons training, EIB training and testing, CTT/SQT training, airmobile training, and other interesting and productive events can be programmed. In short, the basic skills required to support Bradley training and to pass the pre-NET diagnostic test should form the basis of unit training during this period.

This pre-NET period is also the time to analyze the training opportunities in the basic NET program provided by Fort Benning. Although the upcoming NET will be supported and structured by resources external to the battalion, its successful accomplishment will be the responsibility of the battalion itself, and specific plans must be made well ahead of time.

A quick review of the basic NET schedule will show that on 27 of the 37 days allocated to NET, training other than that specific to new equipment training can be conducted. On several of these days, for example, Skill Level 1 soldiers will not be actively involved in NET, and they can use the time available to train on other required infantry skills.

The procedure we used called for identifying those periods when training would be possible and then for providing guidance to the companies on the minimum training they should plan to do. The companies themselves then selected periods when they would accomplish the given tasks. Thus, the soldiers were kept active, the basic chain of command relationships were maintained, and the unit was given an opportunity to experience the rigors of sustaining itself throughout the fielding of the Bradley.

Although a NET team might suggest that certain training be eliminated during NET to lessen its effect on the program itself, units should not be overly cautious. The cancellation of training in the basic requirements during NET can effect the long range capabilities of the unit and will certainly result in the loss of many training opportunities. With too many restrictions, in fact, the Skill Level 1 soldiers will not be productively employed and their ensuing boredom could lead to other problems.

Certainly, any unit scheduled to undergo NET will find it a busy time, but many other tasks that support the overall requirements can still be done. When they are, unit pride, morale, and training readiness will increase.

THREE PARTS

New equipment training itself is divided into three parts — leader training, organizational maintenance training (OMNET), and operator's training (OPNET). Leader training is the key to all the rest, and all leaders must attend, because it gives a unit's leaders, from squad level up, an opportunity to become acquainted with the Bradley before their soldiers begin their training. Schedules can be worked out with the NET team so that the leaders from the individual companies can attend in two or more sessions, which will allow them to maintain their normal unit functions.

The organizational maintenance NET is conducted in two sessions of two parts each (hull and turret), and it

produces some of the best trained mechanics in the Army today.

A unit undergoing NET needs to structure its training cycle so that the first OMNET session conducted is heavily weighted with NCOs. Overall, OMNET provides a maximum number of soldiers trained in both hull and turret maintenance as well as a maximum number of supervisors who can help the NET team develop a strong maintenance base to support the system.

The one drawback to OMNET is the space it requires — eight maintenance bays and some office space. The dedication of this amount of space at a time when the battalion itself is probably restructuring and reorganizing itself undoubtedly will be inconvenient, which means that it must be well planned. The overall benefit, though, is well worth the temporary inconvenience.

The next phase, OPNET, is the heart and soul of Bradley NET. In it 11B infantrymen are trained to be 11M fighting vehicle infantrymen. It is this part of the training program that involves most of the battalion's personnel and presents the greatest challenge to the unit. More important, OPNET provides an opportunity for the unit to establish a program, set standards, and develop techniques that will be the basis for all future Bradley training.

The basis for OPNET in the 2d Battalion, 41st Infantry was referred to as Total System Training, a combination of Bradley-specific skills and basic infantry skills. This training was designed to challenge the unit to sustain its level of training while adding to it the skills required of Bradley infantrymen. Our rationale for this approach was simple and straightforward: We knew that a Bradley battalion would add between 24 and 36 days of vehicle and gunnery training to its already full annual program. Unless an integrated, multi-echelon program was developed early there would be a danger that the unit would follow two separate tracks — one infantry, the other gunnery. To do this would negate the synergistic effects of

the Bradley, for it is most powerful when it functions as an integrated system.

Our combination of requirements and tasks proved successful, and we functioned on several levels simultaneously. The NCOs carried a large part of the load, but they were aided by a number of Skill Level 1 soldiers. These were the soldiers who had the most time to commit to concurrent training, and they demonstrated skills normally associated with soldiers beyond their level of experience.

Having soldiers in the ranks of Specialist-4 and below conduct an M16 qualification range is not always desirable, for they will not normally have the experience that provides for good training. But because of the energy of the NET itself and the desire and abilities of our young soldiers, they conducted several such ranges, all of which produced outstanding results. Our squad MILES exercises, SQT training, and battle drills met with similar results.

With the right kind of planning, then, companies can accomplish much more than will be required of them during NET and sustain their basic skills at the same time.

It is interesting to note that when our units returned to doing their common ARTEP tasks, we found that we had to make a concerted effort to include Bradley-specific skills in our training program. If we had not conducted total system training during NET, this all-too-obvious fact may have escaped us.

Another factor to be considered in planning and executing OPNET is the standardization of training. A NET team consists of five different sets of company trainers who align themselves with the companies and the scouts. Each team is headed by a captain and consists of one NCO trainer per vehicle and an NCOIC. The NCOs in our NET team were hand-picked for the job and had extensive experience. Each team also had a unique personality, as does any organization. This factor, combined with the fact that training was done successively, dictated that standards be set and

adhered to if a minimal level of training was to be met. (This is a unit problem, and because the battalion commander and his S3 must also undergo training, their ability to oversee the training as they normally would is limited.)

Innovation and inventiveness during training, as always, should be encouraged. But the training needs to be closely monitored to ensure that errors made early (because of poor selection of training areas, perhaps, or because of limited resources) do not continue throughout the training cycle. Likewise, any innovations must be monitored to see that the basic levels of training are being met and that the training is not being modified to fit something that is unique to the personality of either the NET team or the company being trained.

One solution to this problem is to provide a good system for passing information from the lead team on to those that follow. This should include such steps as documenting the training courses established by the lead company (driver's course, BSEC course, range sequence) and formally passing this knowledge from one team to the next. The lack of any ARTEP-type training and evaluation outlines (T&EOs) for NET makes this documentation even more critical as the unit blends NET with its training facilities and its training personality.

We used several other techniques during our OPNET. The first of these was the Dry-Wet-Wet approach to gunnery. Each crew conducted all exercises at least three times — first dry (without fire), then twice with ammunition. As the lead vehicles conduct their live fire runs, other vehicles would follow in a dry status and would simulate firing. This not only saved time, it increased the time crews had for training and provided a sequence of steps through which they could develop their expertise.

Directly related to this were our after-action reviews of each run, during which each crew and its squad trainer discussed the crew's performance on the previous run. Any crew weaknesses this review identified were

corrected with additional off-line training or through the use of the coaxial machinegun as a subcaliber device to hone a gunner's skills. We also found that the basic skills of identifying targets, handing the target off from the vehicle commander to the gunner, and engaging a target within the allotted time could be greatly improved through this subcaliber training. (In our experience, if a crew could acquire a target, hand it off, and fire its first burst within five to eight seconds, a successful engagement was almost assured.)

We also made a concerted effort to allow the assistant squad leaders and the assistant gunners to fire the 25mm gun. By doing so, we built depth into the program. This technique is suggested by FM 23-1 (Test) and, while slightly difficult to carry out, we considered it necessary training. Where ammunition is critical, in fact, subcaliber runs can be very productive.

PLATOON LIVE FIRE

The NET program calls for a platoon live fire exercise as the final gunnery event. Serious consideration needs to be given to this requirement by all units, for it is probably too big a step for a unit to take at this stage of its training. The requirement to fire as an integrated element without an opportunity to train for it tactically off the range militates against attempting the exercise. It is a decision that individual commanders must make.

The range requirements for NET should be planned thoroughly. Using only two ranges was not a decision of choice, in our case, and it caused enough difficulty to warrant comment. Ranges for the Bradley must run the gamut from subcaliber to full caliber with dismounted infantrymen aggressively executing their role. Two ranges will work, of course, but the cost in congestion alone for the units makes this an undesirable solution. The best overall solution is to use three ranges for training.

The design and operation of the ranges must also be considered.

Although the NET team acts to certify that ranges meet the standards set forth in FM 23-1 (Test), range design is a unit responsibility. Unfortunately, it is also an inherent weakness in today's infantry. What a Bradley unit has to do is to set up a range similar to a tank range, getting support and advice from a sister tank battalion. (Tankers have been doing this for years and have developed successful SOPs and techniques that will make the design and operation of a Bradley range much easier.) But the infantrymen assigned to Bradley units also need to be trained in range design and operations, and the Infantry School might begin to develop some special training courses on the subject.

There is a potential danger in a battalion's operation of the ranges, and that is the tendency to lean heavily on its new Company E as a detail company for the line units. Without question, this is a simple and direct solution that has little effect on the training unit, but it does not consider the fact that Company E also needs to train.

During our NET, our companies spent six days on each of the two ranges. During the initial three days on the first range, our scouts, who had undergone NET earlier, provided the range support. The units supported themselves during the next three days. The same was true for the second range, with Company E providing support only for the first three days. The result was that the supporting elements were able to train and the line companies learned more by being self-sufficient.

When we finished our NET, our squads were trained to fight with the Bradley, and our soldiers had sustained their basic infantry skills as well. The battalion's success was attributable to good planning, strong support from an excellent NET structure, and superb execution by the soldiers.

We learned many lessons. The most significant one was that good planning, as in any endeavor, makes execution simpler. Another was that pre-gunnery training needs to be used