

are assigned specific responsibilities, breakdowns in the system will be easier to identify and fix.

The key to ensuring that Class IX repair parts are ordered and received is to control the DA Form 2404 and the repair part as they move through the system. Thus, during maintenance halts, we have each TC fill out a DA 2404 with the vehicle fault and the national stock number (NSN) of the needed repair item. He gives the form to the motor sergeant, who conducts quality control checks. Once the motor sergeant has ensured that he has a 2404 for each vehicle, he gives the forms to the supply sergeant during normal LOGPAC operations. (Withholding Class I supplies from a unit until this is completed can quickly bring this point home to the crews.)

When the supply sergeant returns to the brigade support area (BSA), he gives the 2404s to the battalion motor sergeant (BMS), who performs another quality control check for proper priority and accurate parts information. He gives the forms to the individual prescribed load list (PLL) clerk, who verifies it for valid

NSNs and recoverability codes. The clerk pulls the parts he has on hand and enters the document number on the 2404 for those he must order. He gives the annotated 2404 and the repair parts to the supply sergeant for return to the motor sergeant.

The last step in the process is to return the annotated 2404s and parts to the TCs, who write the appropriate entries on their DA Forms 2408-14. To ensure the smooth flow of information from TC to BSA and return, leaders should see that painstaking exercises using the system are conducted at every training opportunity.

Finally, the UMCP needs to have a plan for reacting to a possible enemy attack. Good security, combined with excellent use of camouflage nets, will increase the UMCP's survivability. The use of roving patrols and listening or observation posts should not be ruled out.

The BMO also must have a plan for returning the vehicles to their respective units when they are ready. If this cannot be done before the battle, even an outstanding repair effort may be in vain.

The UMCP should make every effort to move with the combat trains to ensure there is a unity of effort in combat service support operations. That effort can do much to improve a task force's ability to conduct sustained operations.

Good maintenance is not easy. It requires organization, planning, intensive preparation, and ruthless execution. But maintenance is a combat multiplier that a mechanized task force must use to the fullest if it is to succeed.

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# The Mechanized Infantry Team In the Offense

LIEUTENANT COLONEL THOMAS V. MORLEY  
CAPTAIN ANTHONY J. TATA

In a mechanized infantry team, proper teamwork between the tank and infantry platoons on the objective can devastate even the most heavily prepared defenses. An infantry team commander must understand, though, that while his infantry is indeed deadly from 1,000 meters in toward the objective, it is the tanks that give him his long range killing power,

and they are sure to be the enemy's primary target. The tank platoon must therefore be preserved during movement so it can provide enough firepower on the objective to support the mechanized team in its efforts to destroy the enemy.

The movement formation a team uses should allow the commander to make

contact with the enemy with a relatively small element while still retaining freedom of maneuver for the bulk of his force. That formation should also facilitate his command over and control of his fighting units and allow him to maintain the momentum of his attack.

In discussing formations for a mechanized infantry team, however, the cur-

rent manuals mention only two—one with an infantry platoon in the lead and the other with a tank platoon in the lead. In the usual tank-led formation—and the one taught in the Infantry Officer Advanced Course—all four tanks lead in a wedge while the two infantry platoons move on the flanks with the team commander in the center and the executive officer (XO) with the platoon on the left. Unfortunately, if all the tanks are destroyed—as often happens in our training—the team is rendered ineffective before it even reaches the objective.

Another formation has proved its worth in numerous force-on-force battles using MILES (the multiple integrated laser engagement system). In this formation, one tank section leads the infantry platoons and the other trails (Figure 1).

During the approach march and before any contact, the two trailing tanks, with proper gun tube orientation, can increase the security of the formation to a true 360 degrees. Instead of having four tanks scanning forward and to the flanks, two can do that while the other two observe to the rear and the flanks. As the team approaches its objective, the two lead tanks can provide supporting fire while the rear tank section gives the commander many opportunities for maneuver.

With only two tanks leading, the team is far better able to accomplish its mission—either by destroying an enemy force or by seizing an important piece of terrain. As the company moves into an enemy engagement area, for example, the lead tanks may be destroyed, but the rear tanks will probably survive the initial engagement.

These two remaining tanks still give the commander a formidable force with which to complete his mission. They offer him accurate direct fire, thermal acquisition capability, and more survivability from indirect or direct fire. The rear tank section, in concert with the infantry platoons, are available to destroy the initial enemy force and continue on to the objective. The tanks can then select firing positions from which to pin down or destroy one of the enemy's stationary forces, or the team commander

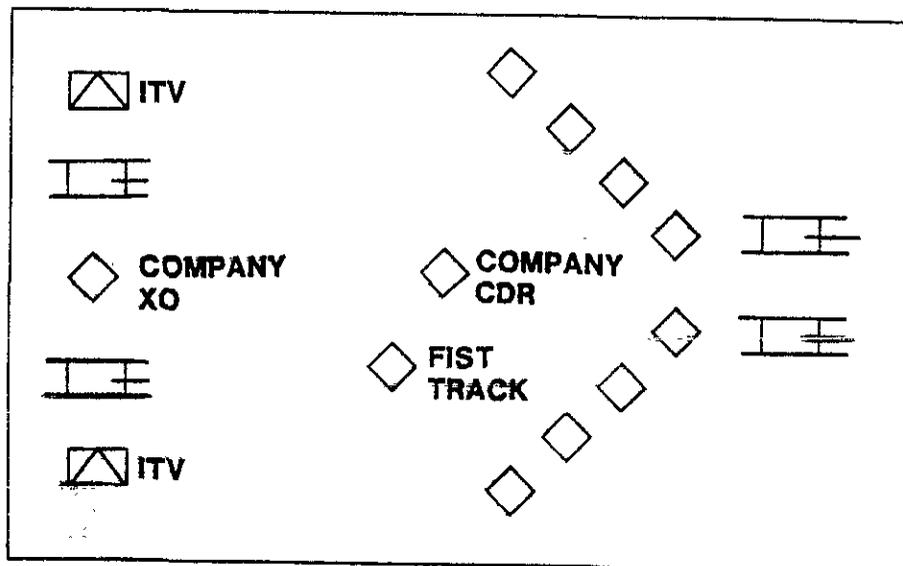


Figure 1

can use tank-infantry teamwork to maneuver his infantry forces to dismount points to destroy the enemy's vehicles (Figure 2).

If this team's initial engagement happens to be with the lead elements of a moving or attacking enemy force, this split tank section formation also gives the commander some decisive advantages. The rear tank section can find hasty firing positions, for instance, to support the forward infantry platoons, which can rapidly dismount their antiarmor teams to destroy the attacking enemy forces. If the infantry platoons are equipped with Bradley fighting vehicles (BFVs), the vehicles' chain guns and TOW missiles

will provide even more depth to the battlefield (Figure 3).

The split formation also enables the tanks to conceal more of the team with smoke during movement; regardless of the direction of the wind, one of the tanks will be able to provide effective concealment.

Additionally, if the team receives harassing fire from a small outpost, the commander can use one section or the other (or one of the tanks designated as a "killer tank") to suppress the enemy while his team continues to maneuver toward the objective. (The commander should try to identify his most potent "killer tanks" during training. Then he

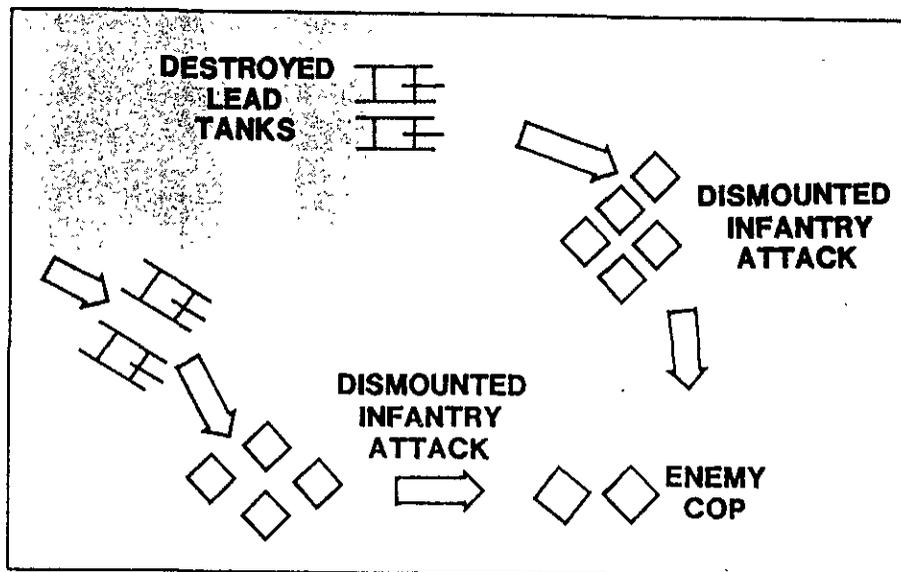


Figure 2

should stay aware of where these tanks are in his formation so he can call on them in this type of situation. Once again, this type of preplanned response to enemy fire increases the formation's security and helps keep the commander from getting caught up in the wrong fight.) Speed and terrain driving must serve as key elements to protect the lead tank section.

**CRITICS**

Some critics may believe that it is not tactically sound to split the tank platoon. Others may claim that the tank platoon leader will not really be in charge of maneuvering his platoon. This may be true, but we believe this formation better serves a team commander in carrying out a mission for the following reasons:

- Command and control remains focused on a team made up of two tanks.
- Each tank section is commanded by an experienced leader—either the platoon leader or platoon sergeant.
- Mutual support is available between the sections for any deliberate attack.

Other techniques can be used to increase the security of this formation during movement, which allows the team to move rapidly without excessive fear of ambush or surprise.

During times when enemy air attacks are likely, for example, a dedicated M113 or IFV from each infantry platoon can act as flank security, moving 200 to 500 meters to the team's flanks. These "out-riders" should be as far from the team as the terrain permits so as to deny enemy helicopters the dominant overwatch terrain.

These vehicles should be allocated extra machinegun ammunition so they can suppress enemy helicopters or engage fast moving aircraft. The antiarmor weapons with these security vehicles can also effectively destroy or harass any enemy attack helicopters. (Certainly, the track commanders of these vehicles should be strong NCOs with sound judgment.)

Because the speed of the infantry vehicles is comparable to that of the tanks (M113s to M60 tanks and BIFVs to M1s), these outrider squads can quickly move back to their original stations during assaults. And as the terrain varies, so will their positions.

Normally, as terrain becomes more restrictive or dense, an attack begins to slow. The team commander must be flexible enough to tighten his formation to a column if necessary. He should also consider sending a "rabbit vehicle" forward. This vehicle, similar to the flank security vehicle, can act as the dismounted point

man or the forward security element. It can race ahead, within overwatch range of the lead tanks, scout along the axis of advance, initiate the breaching of any obstacles, establish antiarmor ambushes, and provide detailed intelligence concerning the condition of the approach route before the rest of the team arrives at any chokepoints. By eliminating these nuisances and providing early warning along an axis, the rabbit vehicle enables the team to maintain its momentum.

In the split tank platoon formation, the commander can put the company or team executive officer in control of the rear tank section and any improved TOW vehicles (ITVs), either organic or attached. (Another interesting technique involves the use of TOW HMMWVs—high mobility multipurpose wheeled vehicles—as an additional attachment to the XO's section.) Thus, in any unexpected engagement area, the most likely overwatch elements are under the control of the XO and out of the initial kill zone. This, in essence, gives the team commander the freedom to maneuver his two infantry platoons and the remaining tank section either onto a piece of key terrain or against an enemy force.

While the commander maneuvers the infantry platoons, the company XO can establish a supporting overwatch element with the two rear tanks and the ITVs or HMMWVs. Under certain METT-T (mission, enemy, terrain, troops available, and time) conditions, this overwatch element can be used to exploit success on an alternate mobility corridor. An effective method in this situation is to have the XO lead his tanks on a diverging axis, forcing the enemy units either to stay in position to deal with them or to reposition some forces in their direction. This allows the company to destroy this fragmented force rapidly.

Likewise, the team's main body can maneuver against the bulk of an enemy force while the XO slips in on a separate axis and acquires enemy targets from the flank and rear. Tanks and TOWs are particularly good at bounding overwatch, because each tank can move safely within the protection of a TOW. In any case, the XO is truly a second in command or fighting XO.

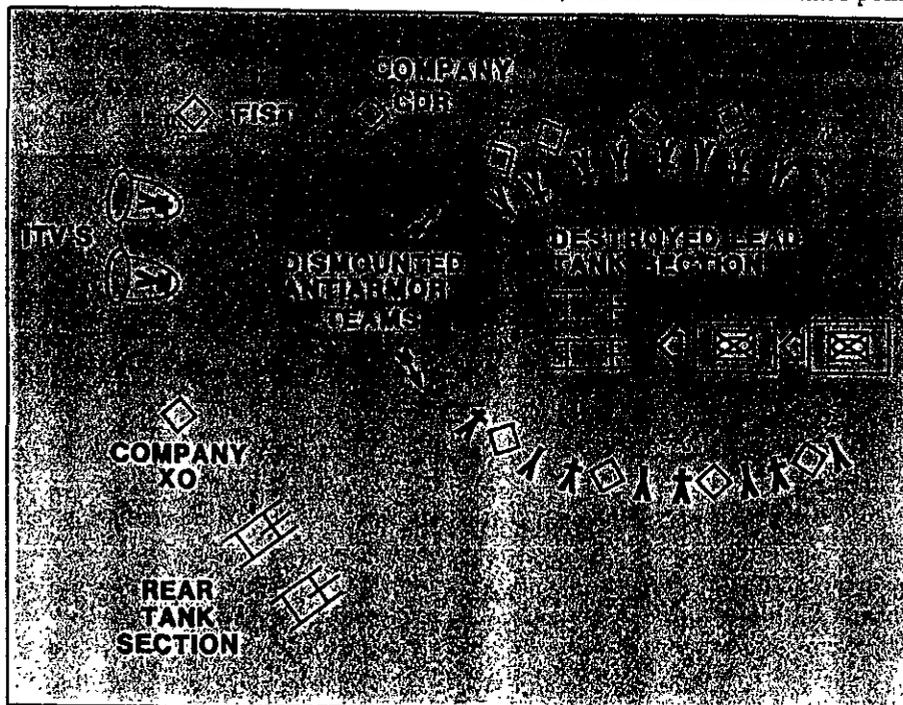


Figure 3

Because the company XO must also send reports on the battalion net, the formation of this extra maneuver element does create a radio frequency problem. The XO must monitor both the battalion and the company nets. One solution is to place the trail tank section on the company frequency with the XO, the commander, and the three platoon leaders. Until the company has made contact with the enemy, this section should be strictly in a listening mode.

All of these techniques have been used effectively during four major evaluated exercises in the past year—one at the National Training Center, one at Yakima Firing Center as the opposing force, and two in external evaluations at Pinon Canyon, Colorado.

Using these techniques, a mechanized infantry team commander can improve the survivability of his team and increase his chances of accomplishing his mission successfully.

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# The 60mm Mortar

## How Good Is It?

CAPTAIN JOHN M. SPISZER

The Joint Readiness Training Center (JRTC) at Fort Chaffee, Arkansas, is the equipment and doctrine test bed for light, airborne, air assault, and Ranger units. One weapon system that all of these units have in common is the M225 60mm mortar. (See also "Light Infantry 60mm Mortar," by Captain Michael T. Natusch, INFANTRY, November-December 1976, pages 33-35; and "AOE and the 60mm Mortar," by Captain Morton Orlov II, INFANTRY, September-October 1987, pages 26-30.)

At the JRTC, this mortar, its employment, and the mortar section's capabilities are routinely observed, and on the surface it appears to be an ideal weapon: It is light, highly responsive, and can provide a high rate of fire in either an indirect or a direct fire role. It weighs 46.5 pounds (51.5 pounds less than the 81mm mortar); its highly effective rounds—high-explosive, white phosphorous, and illumination—weigh only three to five pounds each (five to seven pounds less than the 81). A new high-explosive round will have a range of more than

4,000 meters with a bursting radius of 29.5 meters—as effective as our current 81mm mortar ammunition.

The weapon can be fired in a hand-held manner (total weight is only 18.5 pounds) out to 1,300 meters, using a trigger option instead of the traditional drop fire method. Furthermore, any soldier can learn to fire it this way in a matter of minutes.

Finally, and perhaps most important for the infantrymen whom this weapon is designed to support, two 60mm mortars are assigned to every light, airborne, and air assault company, and three to every Ranger company. In short, it is an

infantry commander's own indirect fire support.

Observations at the JRTC suggest, however, that this portrayal may not be entirely accurate. There are definite problems. Two of the most obvious are the mortar section's organization and the current state of training and doctrine—specifically, the mortar's tactical employment and its ammunition supply and resupply.

An infantry company mortar section today is made up of two M224 mortars and six soldiers, organized as shown in Table 1. The section leader also acts as a gun squad leader, while either he or the squad leader acts as fire direction center (FDC) chief and computer. Usually one of the two must also act as the radio telephone operator (RTO) for the section. In other words, these six soldiers have at least nine specific functions to perform, possibly more.

Furthermore, despite its light weight, the mortar—with its associated TOE equipment, ammunition, and normal TA-50 soldier's load (including food

CURRENT ORGANIZATION	
1	Section Leader (11C30)
1	Squad Leader (11C20)
2	Gunners (11C10)
2	Assistant Gunners/Ammunition Bearers (11C10)
<b>TOTAL: 6 soldiers</b>	
Table 1	