

The Maintenance Battle

CAPTAIN MARK A. MEADERS
CAPTAIN RICK BAILLERGEON

Good commanders realize that, with today's complex combat systems, good maintenance is an important combat multiplier and poor maintenance can often spell defeat for their units.

Although published doctrine gives current battalion maintenance officers (BMOs) a place to start in conducting maintenance operations, it does not offer a "nuts and bolts" approach to the complex maintenance problems of a high intensity battlefield. We would like to share some common-sense techniques that we have found effective.

A BMO can use FM 71-2 to begin organizing his maintenance assets. These assets are aligned by MTOE (modified table of organization and equipment) for better control of maintenance operations both in garrison and in the field.

The unit maintenance collection point (UMCP) is the focus of a task force's primary tracked vehicle maintenance. The battalion maintenance section assumes complete responsibility for a piece of equipment from the time it arrives in the UMCP until it is returned to its company.

We have found that a few additions to the usual UMCP organization make the task easier. First, an administrative center, which can be in a built-up M105 trailer or an M35 series truck, will improve the BMO's ability to control the work within the UMCP as vehicles arrive for repair.

Then, several key systems need to be developed and placed in the administrative center. These include a status chart, manuals, forms and supplies, and the necessary communications equipment.

An effective status chart that monitors non-mission capable (NMC) vehicles is essential. The chart should allow the BMO to track the vehicles by type, bumper number, current serial or USA number, the reason it is listed NMC, the date it was listed, and its current location. The chart should also show the task organization for each company or team.

Manuals through the -34 and -34P level should be maintained in the center for ordering parts and assisting in the repair of each combat system in the task force. For an infantry task force, this must include hull and turret tank manuals. Company maintenance teams should not be relied upon to make these manuals available, because they are well forward and too busy to help in this area.

FIELD DESK

The center should also contain the equivalent of a field desk with all the current maintenance forms and office supplies that will be needed during field operations. A radio with OE-254 antennas and a map with the graphics for maneuver and logistics posted on it is also helpful.

Once the base operations are established, the BMO should move to organize the rest of the UMCP. A mechanic of each MOS should be present. (In an infantry task force, tank hull and turret mechanics are commonly overlooked, as are those in power generation and communications MOSs.) A complete Number 1 or 2 common tool set should also be

an integral part of the UMCP.

The BMO should try to carry enough packaged POL (petroleum, oil, and lubricant) products to change two major assemblies for each different type of combat system. Brake and hydraulic fluids also should be carried in addition to anti-freeze and GAA (grease, artillery/automotive) lubricants. An M105 trailer works well for this task. Requisitions using the LOGPAC (logistical package) system to replace the quantities used should keep the UMCP entirely self sufficient.

A direct support (DS) contact team should also be in the UMCP. Pre-positioning selected major assemblies can significantly reduce the turn-around time for vehicles. Soldiers with armament and fire control specialties should be in the center, too, to help the organizational mechanics with diagnosis and repair. This combination will greatly improve a task force's ability to fix forward. In addition, the BMO should not overlook the integration of Air Defense Artillery and Engineer maintenance assets into the UMCP organization.

As damaged and NMC vehicles arrive in the UMCP, a triage system should be followed, much like that in a medical unit. A priority of vehicle repair should be established quickly, and cross leveling decisions made and carried out. The vehicle crew should complete a thorough preventive maintenance checks and services (PMCS) and turn in a completed DA Form 2404 to the battalion maintenance officer or team. Any parts that are available in the UMCP should be in-

stalled on the vehicle while it awaits further repair for NMC faults. Finally, the vehicle should be incorporated into the defensive plan for the UMCP or the combat transportation command post.

Another practice that will pay dividends is to have night-time repairs made by the task force mechanics. Although this is slower and more difficult, a good unit can repair vehicles 24 hours a day.

Finally, an SOP that outlines the specific movement instructions and the physical setup of the UMCP will make these operations easier to carry out. In addition, the soldiers should practice moving and setting up the UMCP during both daylight and darkness until they become proficient at it. (One possible UMCP arrangement is shown in the accompanying diagram.)

Unfortunately, maintenance operations usually do not receive much attention during a task force's operational planning, even though detailed maintenance planning before a combat operation can save a BMO hours of precious time. Several maintenance problems that are inherent in sustained operations should be

addressed during the planning phase.

For example, a recovery plan is needed for any units operating forward in the task force sector without their organic support, and the BMO must know which units are forward.

One M88 positioned forward can greatly assist in this task. The recovery plan, of course, must be coordinated closely with the forward units. Another method is to place recovery vehicles with the forward medical aid station, so long as time is allowed for briefing the forward recovery sergeant and seeing that he understands his mission.

In addition, the scout, mortar, Air Defense Artillery, Engineer, smoke, and ground surveillance radar platoons attached to the task force will have specific recovery needs that must be considered. The tank platoons cross attached to infantry teams will also need to be considered in recovery planning.

The BMO, in developing the recovery plan, can use a matrix to delineate the recovery responsibilities for the special platoons. At the same time, the BMO should ensure that his taskings support

the plans prepared by the S-4 and the medical section. Tasking one company team for recovery evacuation and another for medical evacuation only adds confusion to the service support annex.

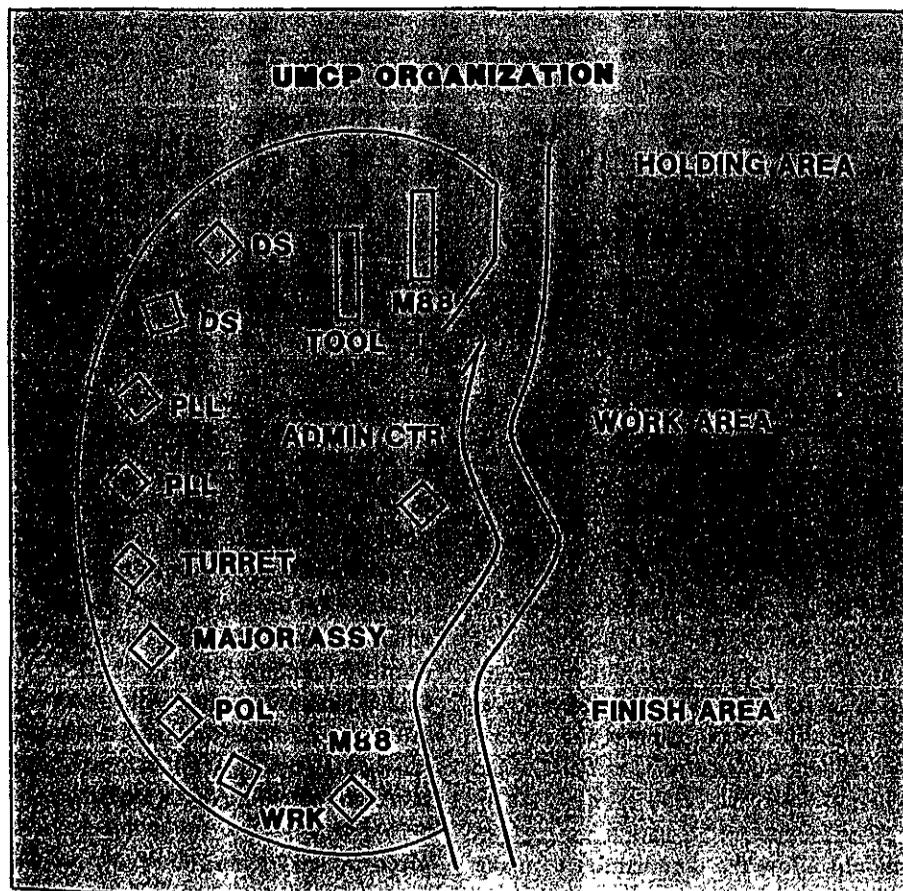
When possible, the BMO should attend the presentation of the task force operations order (OPORD). This will give him an opportunity to coordinate with the special platoon leaders and any newly attached company commanders. (He should later make every effort to give an OPORD to the maintenance personnel in the UMCP. A soldier who is informed will execute his mission much better than one who does not know what is going on.)

The BMO should develop a system of identifying NMC and battle damaged vehicles, and his system should address the problem of identifying them. A VS-17 panel or flag can be used during the day, and chemlights arranged in some geometrical shape can be used at night. These simple steps will help tremendously in battlefield evacuation.

A good preparation effort will improve the task force's ability to win the battle. The BMO must always be prepared to give the task force commander an accurate vehicle status report, including those that can be repaired. A command decision to cross-level units must be executed quickly, so that maximum combat power can be placed forward to influence the battle.

All of the task force's recovery vehicle crews should be completely familiar with the routes to the company battle positions or to prearranged maintenance collection points. In turn, company recovery vehicle crews should rehearse their routes to the UMCP. (A track commander (TC) and driver can conduct the rehearsal in a wheeled vehicle.) Logistics overlays should be posted to the maps in all vehicles.

A well disciplined unit makes maintenance part of its daily routine. If each vehicle in a task force is equipped with a -20P (parts manual), for example, the benefits can be enormous. Since a track commander is the one who has primary interest in the repair of his vehicle, he should be the one who is responsible for ordering parts for it. If individual soldiers



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.

Captain Mark A. Meaders has served as a Cavalry squadron maintenance officer in Germany, an Armor battalion maintenance officer at Fort Carson, and as the battalion maintenance observer-controller for the mechanized infantry task force trainers at the National Training Center. He also commanded a tank company at Fort Carson and is now an Armor company trainer at the NTC.

Captain Rick Ballergeon served in numerous opposing force assignments before becoming a platoon observer-controller for the mechanized infantry task force trainers and a maintenance observer-controller at the NTC. He is now attending the Armor Officer Advanced Course.

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-