

# Mount, Saddle, Soldier: Overcoming a Decade of Concierge Maintenance

*"First the horse, then the saddle, then the man." -old cavalryman's creed*

by LTC Jeffrey Paine and MAJ Lance Leonard

*It is late afternoon in March 2011 when a platoon returns to Forward Operating Base (FOB) Frontenac from a daylong security patrol throughout Shah-Wal-e-Kot in southern Afghanistan. Three of the four mine-resistant ambush-protected (MRAP) all-terrain vehicles (MATVs) move under their own power, while the second vehicle in the column uses a heavy tow bar to pull another vehicle. There is no obvious battle damage to the towed vehicle, but dark oil stains coat the exterior of the transfer case underneath the armored truck.*

*The platoon goes through the rote movements of clearing personal and crew-served weapons and moves along the graveled road to the FOB maintenance area, where the squad leader and platoon sergeant meet the battalion maintenance technician (BMT). The crews drag the powerless MATV to the maintenance shelter and detach the tow bar while the squad leader describes to the BMT what happened. The maintenance platoon takes the MATV so the platoon can complete its post-patrol operations, cleaning weapons and equipment before the Soldiers head to the dining facility for dinner. They have patrolled daily for the last 47 days and will patrol again tomorrow with the same three MATVs, plus one additional from the six assigned to the platoon to meet the four-vehicle requirement. The squad leader would prefer to have "his" MATV and offers a momentary gripe to his lieutenant over chow but shrugs it off as "just the way it is." His squad works into the night preparing the loaner truck for patrol and then beds down for the night.*

Over the past nearly decade and a half of war, this scenario is increasingly common among our maneuver battalions<sup>1</sup> in brigade combat teams (BCTs). The operations tempo, frequency of deployments and the Army Force Generation cycle's "train/ready" phases have created very tactically sound and savvy junior leaders who develop creative solutions to problems they encounter in their deployed areas of operation. However, the optempo has also driven organizations to streamline and "outsource" maintenance operations away from maneuver platoons to maintenance platoons in the forward-support companies (FSC) augmented by contractors. Army senior leaders deliberately decided to implement this concept of support to maximize endstrength in combat forces in Iraq and Afghanistan.

The result is that junior leaders in companies have become accustomed to dropping off deadlined vehicles and equipment for routine maintenance, which often includes operator-level tasks. This "concierge maintenance" mentality – exacerbated by the availability of excess theater property and equipment, especially vehicles – allows platoons and companies greater flexibility to execute the requisite number of patrols while maintainers repair vehicles. Unfortunately, maintenance urgency only comes when a platoon is in danger of not meeting the ubiquitous four-vehicle patrol requirement.

Due to this method of maintenance, a significant portion of company-grade officers, junior field-grade officers and noncommissioned officers (NCOs) who serve as squad leaders and platoon sergeants do not understand the basic tenets of Army maintenance systems:

- Preventive-maintenance checks and services (PMCS);
- 5988-E flow;
- Command maintenance programs;
- Vehicle services; and
- Flow of repair parts.

Mechanics have occupied guard towers and entry-control points when deployed, while battalions of contractors troubleshoot and repair deadlined equipment. Therefore, Army maintenance at the company and battalion levels has become a mysterious "black box" in which broken equipment goes in and, at some indeterminate point in the future, comes out the other side fully mission capable. This is the problem. When units must maintain their own equipment without contractors, have no excess equipment and perform maintenance in a tactical assembly area

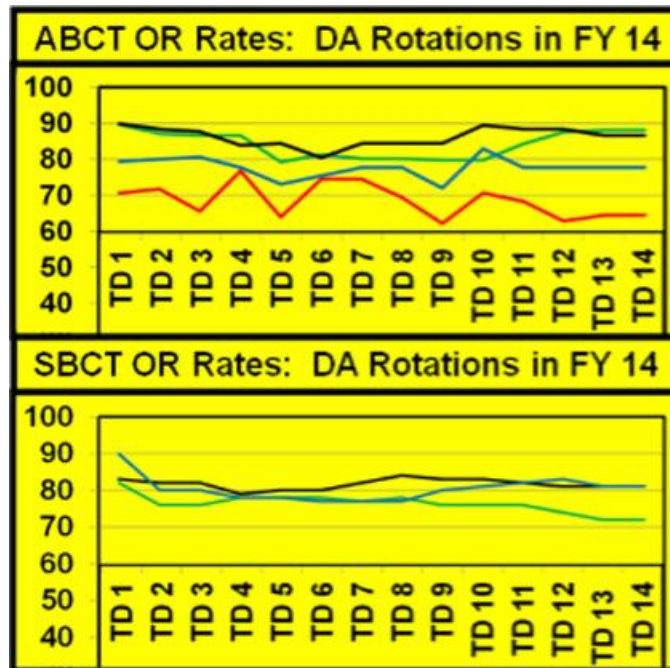
(TAA) and not in an FOB, they struggle with the basics. Moreover, as units return to operating and training solely with their modified table of organization and equipment (TO&E) assets, they have exactly the amount of equipment they need. This requires a fundamental shift in thinking and operating for our junior leaders.

Recent rotations at the combat training centers (CTC) confirm this observation about maintenance systems. As the Army moved from mission-rehearsal exercises to training rotations based on the decisive-action training environment, units had to operate continuously from TAAs and battle positions, away from secure bases and fixed maintenance facilities. Platoons and companies failed to complete basic daily PMCS as evident by the number of Department of the Army Forms 5988-E turned in to the FSCs. This resulted in few Class IX parts ordered for repairs, which caused minor deficiencies to become major deadline issues as the rotation progressed.

5988-E Submissions												
Cycles	1			2			3			4		
TDs	0-3			4-6			7-9			10-13		
	Issued	T/I	%	Issued	T/I	%	Issued	T/I	%	Issued	T/I	%
HHC	59	0	0%	59	17	29%	59	43	73%			
SCT												
MTR												
MED												
A	25	13	52%	25	13	52%	25	0	0%			
B	21	12	57%	23	21	91%	23	20	87%			
C	25	19	76%	27			27	0	0%			
D	24	0	0%	30	23	77%	30	19	63%			
FSC	56	15	27%	56			56	11	20%			
CBT PWR	O/H	FMC	%	O/H	FMC	%	O/H	FMC	%	O/H	FMC	%
M1	28	21	75%	28	23	82%	28	26	93%	28	25	89%
M2	31	24	75%	31	26	84%	31	25	81%	31	26	84%
M1064	4	3	75%	4	2	50%	4	2	50%	4	2	50%
M1151	8	7	88%	8	8	100%	8	8	100%	8	8	100%
M978	11	9	82%	11	9	82%	11	9	82%	11	9	82%
M88	7	7	100%	7	6	86%	7	5	71%	7	4	57%

**Figure 1. Turn-in rate of 5988-Es from units during a typical National Training Center (NTC) rotation and the correlation with combat power.**

The U.S. Army Training and Doctrine Command (TRADOC) Capability Manager-Armored Brigade Combat Team (ABCT) observed that in most cases, 5988Es return to the unit-maintenance point without National Stock Numbers identified for the proper repair parts. Leaders exacerbate the problem by improperly allocating maintenance assets without enough mechanics forward to validate faults and identify repair parts.<sup>2</sup> Analysis of unit-maintenance data also reveals units are routinely unable to maintain a 90-percent operational-readiness (OR) rate, which is the Army standard. In some cases, the OR rate slipped to as low as 70 percent for the rotation.<sup>3</sup>



**Figure 2. OR rates that brigades maintained over the duration of their NTC rotation, FY 2014. No unit was able to maintain a 90-percent OR rate for more than one day. In a BCT, this prevents employment of two companies' worth of firepower and reduces tactical options.**

Commanders of brigades and battalions interviewed during their rotations at CTCs regularly discuss the difficulty in maintenance operations and its impact on maintaining combat power. Reporting from battalion commanders indicates maintenance programs suffer from poor services; overreliance on field-service representatives and logistics-assistance representatives; and an inability to comply with Army mandate programs such as the test, measurement and diagnostic equipment program. Unfortunately, the Army has few BCT sustainment systems published and enforced that incorporate now-critical procedures:

- 5988-E flow;
- Dispatching;
- "CircleX" approval;
- Controlled exchange; and
- Class IX tracking.<sup>4</sup>

After 14 years operating from FOBs in Iraq and Afghanistan, the Army now must return to expeditionary and joint operations in austere and immature theaters of operation. This makes the ability to generate and sustain combat power for high-intensity operations supremely important. The Army Operating Concept<sup>5</sup> describes an expeditionary Army capable of rapid deployment that is task-organized into a tailored combined-arms force capable of defeating threats to U.S. interests.<sup>6</sup> With that in mind, Army forces (as part of the joint force) must be able to execute across the range of military operations in austere environments.

Fully developed sustainment assets are not present in such environments. "Decentralized operations in complex environments" will be the norm.<sup>7</sup> As joint forces seize the initiative in contested regions, whether in joint forcible-entry operations or more traditional ground invasions, maneuver units will have to operate supported by immature theater-sustainment systems. Maneuver units, down to and including platoons, will operate far away from the sustainment bases and FOBs to which we have become accustomed, living solely out of rucksacks and bustle racks. The ability of junior leaders to plan, execute and supervise operator-level maintenance and then request appropriate assets and supplies to sustain combat power is critical during high-tempo and mobile operations.

## Potential solutions

The Army should adopt solutions at several levels to address the lack of maintenance knowledge and experience in maneuver formations. In effect, we are talking about changing our organizational culture, a culture embedded and reinforced during the last 14 years of deployments and combat operations – a time when organizations and their cultures adapted to the demands placed on them and took advantage of available efficiencies, specifically surplus equipment and additional assets to maintain combat equipment and vehicles. This mindset now must change to develop and reinforce a culture in which equipment maintenance is once again central to preparation for combat. We must implement structural changes at the organizational level, inculcate them at the institutional level through leader functional training and professional military education (PME), and reinforce them with unit-level leader-development programs. By doing this, we can prepare and develop innovative leaders to operate in conditions of uncertainty.

Changing the organizational structure of maneuver battalions would greatly improve leaders' understanding and ownership of maintenance systems and begin to affect the cultural change. As an example, the current TO&E for combined-arms battalions and cavalry squadrons assigns an Ordnance Corps lieutenant as the battalion maintenance-control officer (MCO) in the FSC. This officer, teamed with the maintenance technician and maintenance sergeant, is supposed to be the subject-matter expert on maintenance systems and procedures. Generally an ordnance lieutenant does not have adequate experience in managing maintenance systems or combined-arms maneuver to supervise a battalion maintenance program or provide quality advice to the commander, so creating a position on the battalion staff (vice the FSC) for a maneuver-branch battalion maintenance officer (captain) could bridge this experience gap. Ideally, the officer would be a captain's-career-course graduate in the queue for company command, who is trained in staff processes and has served as a lieutenant in a maneuver platoon and company.

Working in conjunction with the existing MCO and maintenance-tech warrant officer, this organizational solution could be a powerful catalyst for invigorating battalion-level maintenance systems as well as leader-development opportunities.

## MLMC

Merely adding an additional staff officer to the battalion staff will not reduce the knowledge gap. TRADOC should implement institutional education and training to increase leader knowledge of maintenance operations and systems. Unfortunately, this is often a slow process; Army centers of excellence can provide a more rapid solution to the problem using internal resources. Leaders throughout the Maneuver Center of Excellence (MCoE) recognize that maneuver leaders now struggle with maintenance competence at battalion level and below. That is why MCoE closely coordinated with the Ordnance School (the Army's proponent for maintenance) to address this shortfall through development of the [Maneuver Leader's Maintenance Course](#) (MLMC).

This course focuses on maintenance at battalion level and below, using hands-on and how-to methodology. By focusing on maneuver leaders, MCoE demonstrates maintenance is not just the job of the mechanic/maintainer; the leader who owns the equipment is ultimately responsible. Competent maneuver leaders who understand and can supervise field maintenance in their formations will provide units capable of employing their combat systems, which gives their brigade and/or battalion commander increased tactical flexibility.

MLMC develops the maintenance and logistics competencies of maneuver leaders by focusing on three areas: maintenance fundamentals, maintenance information systems and tactical maintenance planning.

The maintenance-fundamentals section of the course teaches maneuver leaders how to manage maintenance systems within the battalion. Leaders learn such topics as:

- Effective command maintenance;
- Managing programs such as the Army Oil Analysis Program;
- Implementing standard operating procedures; and
- Multiple approaches to conducting maintenance services.

Leaders then move on to maintenance information systems. This block of instruction gives leaders the tools and skills to take full advantage of information systems to maintain combat systems. This section covers the use of

Global Combat Support System-Army, the Non-Mission-Capable Report (O26) and compliance with Army-level maintenance messages.

The final block of instruction provides a structured approach to incorporating maintenance operations into tactical planning. This section covers echeloning maintenance assets and planning considerations in offensive and defensive operations.

At the course's conclusion, leaders will have the knowledge to properly train Soldiers on crew and operator field-level maintenance tasks and effectively maintain combat-power-projection platforms to sustain land-warfare dominance capability.

Maneuver leaders should also receive training on maintenance fundamentals through PME. Newly commissioned lieutenants need to learn the basics of how best to supervise their NCOs and Soldiers in conducting PMCS and operator-level maintenance and repairs. NCOs who attend the Advanced Leader's Course and Senior Leader's Course should receive similar training.

Captains attending the Maneuver Captain's Career Course should gain a broader understanding of maintenance management as a company commander and as a battalion staff officer, with some familiarization in maintenance information systems. They should also be able to apply basic tactical-planning considerations through the military decision-making process in planning battalion and brigade operations. Field-grade officers and sergeants major should be offered (and strongly encouraged to accept) electives that provide them battalion-level-and-above understanding of maintenance systems. This should happen at the Command and General Staff Officer's Course and the U.S. Army Sergeants Major Academy as they prepare for duty as battalion operations/executive officers and command sergeants major, respectively. Finally, battalion and brigade commanders should integrate maintenance-leader training into their unit leader-development programs to sustain and reinforce the education received through MLMC and PME.

## Summary

Fourteen years of constant combat and contingency operations have eroded our Army's ability to maintain our own equipment and generate combat power in our companies and battalions. Our senior leaders prioritized resources to maximize combat forces while fighting in two theaters of operation. They made the best use of contracted support to do it. As the Army transitions away from static, fixed-base deployments and prepares to fight as an expeditionary ground component of the joint force, we must now ensure our leaders are capable of maintaining their equipment with their organic assets to generate combat power. Through re-examining and changing our battalion structures, training leaders in functional courses like MLMC and PME, while reinforcing these skills through solid leader-development programs, the maneuver force will be better able to fight and win in a complex world.

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## **Acronym Quick-Scan**

**ABCT** – armored brigade combat team  
**BCT** – brigade combat team  
**BMT** – battalion maintenance technician  
**CTC** – combat training center  
**DA** – decisive action  
**FOB** – forward operating base  
**FSC** – forward support company  
**FY** – fiscal year  
**MATV** – MRAP all-terrain vehicle  
**MCoE** – Maneuver Center of Excellence  
**MCO** – maintenance-control officer  
**MLMC** – Maneuver Leader's Maintenance Course  
**MRAP** – mine-resistant ambush-protected  
**NCO** – noncommissioned officer  
**NTC** – National Training Center  
**OIF** – Operation Iraqi Freedom  
**OR** – operational readiness  
**PMCS** – preventive-maintenance checks and services  
**PME** – professional military education  
**SBCT** – Stryker brigade combat team  
**TAA** – tactical assembly area  
**TD** – training day  
**TO&E** – table of organization and equipment  
**TRADOC** – (U.S. Army) Training and Doctrine Command  
**USMA** – U.S. Military Academy

## **Notes**

<sup>1</sup> This phenomenon is not limited solely to maneuver battalions but is common throughout all types of formations. The authors are writing from their own experiences in maneuver battalions.

<sup>2</sup> TRADOC Capability Manager-ABCT and Reconnaissance semi-annual report, September 2014.

<sup>3</sup> Personal correspondence with CPT Christina Shelton, Goldminer battle-staff analyst, NTC Logistics Group, Jan. 22, 2015.

<sup>4</sup> Ibid.

<sup>5</sup> TRADOC Pamphlet 525-3-1, *The U.S. Army Operating Concept: Win in a Complex World*.

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.