



Rebuilding a Maintenance Program After Deployment

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After returning from a 15-month deployment to Afghanistan, the 62d Engineer Battalion struggled to reestablish a battalion maintenance program. Junior leaders were not engaged in the motor pools, money was being spent to maintain excess equipment, and low productivity in the maintenance bays resulted in overtasked mechanics who were unable to complete maintenance. To increase readiness, the battalion worked to develop a maintenance program that used the experience of its maintenance warrant officers to assist companies at the grassroots level. At the same time, the battalion followed a strategy based on sharing knowledge, reducing costs, and increasing productivity. The strategy increased readiness by reducing inefficiencies, sharing knowledge, and creating synergies between organizations.

Maintenance Situation

In March 2010, 8 months after returning from Afghanistan—and 2 months into the train/ready force pool (sometimes referred to as the train/ready phase) of Army force generation—the battalion maintenance program was unable to support the battalion training plan. Restructuring from a legacy organization into a modular organization absorbed the attention of battalion leaders. Personnel realignments, property accountability, and the

creation of new systems distracted attention from the battalion maintenance program. To add confusion, every company in the battalion got a new commander and nearly half the senior noncommissioned officers rotated out of the battalion within 90 days of returning from deployment. With this loss of experience came a lack of oversight of subordinate unit maintenance programs, which led to errors in initial data entry into unit Standard Army Maintenance System (SAMS)-1 computers. Initial inspections of SAMS-1 computers revealed that equipment was misidentified as pacing items, was listed with incorrect service data, or was completely missing from the system. By themselves, these problems were easily fixed, but the battalion also suffered from Class IX parts distribution problems. Only one of the four line companies had Class IX parts that supported the equipment on its shop stock listing, and the authorized stockage list (ASL) at the supply support activity did not support the battalion equipment. This resulted in long lead times for parts. To make matters worse, the battalion failed its semiannual environmental inspection in November 2009 and every senior motor sergeant in the battalion was due for reassignment or retirement.

These problems resulted in a maintenance nightmare, with several pacing items sitting deadlined in the motor

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pool, incorrect Army Materiel Status System reports being forwarded to Department of the Army, services and calibrations falling behind schedule, and safety messages stacking up without being addressed. There was nowhere to go but up.

The Solution

To help company commanders reestablish their maintenance programs and mitigate the loss of senior motor sergeants, the battalion pushed its maintenance warrant officers down to the company level to provide guidance to staff sergeants serving as company motor sergeants. Two excess maintenance technicians were placed in supervisory positions in maintenance shops at the 68th Engineer Company and 104th Engineer Company. The 74th Multirole Bridge Company maintained its organic maintenance technician. These warrant officers made an immediate impact by reestablishing demand-supported shop stocks, reconfiguring service schedules, and updating SAMS-1 computers to accurately reflect unit vehicle densities. With their expertise in place at the companies, the battalion focused on developing a battalion maintenance program.

Knowledge Sharing

The keystone to the 62d Engineer Battalion maintenance strategy was increasing the knowledge of junior leaders on The Army Maintenance System (TAMS) and then sharing that knowledge among the different maintenance entities to create a shared understanding of the maintenance problems that the battalion faced. To increase knowledge at the junior leader level, the battalion instituted a weekly maintenance professional development program. The weekly classes, held during command maintenance periods, reemphasized what leaders should be checking during command maintenance, demonstrated capabilities, and reinforced maintenance standards. Classes ranged from 10 to 30 minutes and were taught by a platoon leader or lieutenant immediately after first formation to ensure maximum participation.

To reinforce this learning, the battalion conducted intensive quarterly maintenance weeks when the battalion inspected companies to ensure that they were meeting Army maintenance goals. The week usually coincided with a training holiday, allowing commanders to focus on supply and maintenance systems for 4 days. The event usually consisted of—

- Command maintenance.
- Operator inspection on preventive maintenance checks and services procedures.
- Environmental inspection.
- Inspection of military-owned, demountable containers; supply rooms; nuclear, biological, and chemical rooms; and company communications rooms.
- Weapons maintenance.

- Organizational clothing and individual equipment layouts.
- Protective mask maintenance.

The week gave commanders the time and resources to effectively maintain equipment and update systems and provided an assessment of the battalion sustainment functions.

As the battalion increased its knowledge of TAMS, the weekly battalion maintenance meetings provided a forum to share information, solve problems, and build a common operational picture of sustainment issues. The meetings were chaired by the battalion executive officer, with required attendance by company executive officers, motor sergeants, maintenance technicians, the battalion property book officer, supply officer, signal officer, safety noncommissioned officer, environmental control officer, maintenance control officer, maintenance control sergeant, and maintenance control technician. The meetings reviewed the status of—

- Company maintenance.
- Lateral transfers.
- Budgets.
- Financial liability investigations of property loss.
- Communication systems.
- Automation.
- Safety-of-use messages.
- Environmental concerns.

This created a common operational picture on sustainment issues across the battalion and allowed company staffs to synchronize efforts to achieve immediate goals or request additional assistance from the battalion to meet readiness goals.

Reduced Costs

Budget restrictions required that fleet maintenance operations become more efficient. In a typical month, the battalion spent \$180,000 to \$230,000 on Class IX repair parts, representing more than 70 percent of its annual budget. To reduce costs and still maintain a fleet of more than 450 vehicles, the battalion increased the efficiency in Class IX distribution channels, reducing the need to locally purchase parts and reducing excess property so that funds spent to maintain equipment were spent on authorized equipment. Quick, dependable delivery of parts eliminated the need to tie up capital on inventory in company shop stocks. A problem for most engineer units is the need for low-density, specialized equipment. This prevents the servicing supply support activity from capturing many demands and typically results in long lead times for parts. When an ordered part shows a long lead time, the normal work-around is to use a government purchase card to buy directly from a local equipment dealer. This solution works as long as a unit has the required financial resources.

To reduce costs, the 62d Engineer Battalion focused on increasing the number of command-stocked parts on the ASL at the supply support activity. Representatives attended ASL review boards to voice opinions on what parts should be stocked. This allowed the battalion to align company shop stocks with the ASL, ultimately reducing the lead time for parts. However, this process is time-consuming and only works for those parts identified as on hand.

In cases where demands did not justify adding a part to company shop stocks or the supply support activity ASL, the battalion worked closely with the 4th Support Brigade and Tank-Automotive and Armaments Command representatives to expedite the delivery of those parts. The battalion motor officer and motor technician used the Finance and Logistics System and Logistics-Integrated Warehouse Parts Tracker databases to track rollover document numbers and the status of each high-priority part. Those parts with long estimated shipment dates resulted in an inquiry to the brigade motor technician, the 4th Support Brigade or Tank-Automotive and Armaments Command representative, or the Army Materiel Command parts manager. This kept the pressure on the distribution system to deliver the part; and in some cases, parts were delivered faster than through local purchase.

Although increasing the responsiveness of the Class IX distribution system helped cut costs, the greatest cost savings came from reducing excess property. From 2009 to 2010, the battalion identified and reduced more than \$1.6 million in excess property. The money saved allowed a better allocation of those resources throughout the battalion. The battalion executive officer, property book officer, and supply officer reviewed each company property book monthly and compared it to equipment found at the unit and to equipment authorized by the company allowances. Any unauthorized or excess equipment was immediately turned in or laterally transferred to another unit. By March 2011, the battalion had turned in or laterally transferred more than \$2.6 million in excess property.

Increased Production

Increasing production was the most difficult part of the maintenance strategy. After two deployments in 3 years and the strain they put on Families, the last thing the battalion commander wanted was to make Soldiers work late. At his direction, the motor pool was to close by 1700 nightly to ensure that Soldiers had time to spend with their Families. This policy forced leaders to balance scheduled maintenance with demands for unscheduled maintenance. The 62d Engineer Battalion did this by defining scheduled maintenance requirements and then allocating “excess” labor to meet unscheduled maintenance needs. This helped to determine daily requirements in respect to time, labor, and bay space.


To determine the scheduled maintenance requirements, the maintenance control officer reviewed each company service schedule and consolidated them into a battalion level maintenance schedule that outlined the bumper

number, the time estimated to complete the service, the number of mechanics needed to complete the service, and the bays required to perform the service. This allowed the maintenance control officer to see where the current scheduled maintenance plan was resource-constrained and to redistribute the effort where assets were available. This plan was then compared to company quarterly training plans and further refined.

Once the battalion service schedule was created, scheduled and unscheduled maintenance requirements were reviewed daily by the battalion executive officer, maintenance control officer, and battalion maintenance technician. This review consisted of examining each company SAMS non-mission-capable report, scheduled maintenance progress, and other maintenance issues affecting the battalion. It provided a way for the battalion to quickly synchronize resources to meet ongoing problems.

Under this program, the battalion quickly caught up on delinquent services and surged when needed. The surge capability was critical while preparing company-size elements for deployment. In late 2010 and early 2011, with no detriment to the other companies in the battalion, the 62d Engineer Battalion completed 295 services for the 74th Multirole Bridge Company as it prepared to induct equipment into the left-behind equipment program.

Conclusion

Reestablishing a maintenance program after deployment is an arduous, but necessary, task that sets the foundations for future success as units enter the train/ready force pool of the Army force generation process. The 62d Engineer Battalion met this challenge by pushing its maintenance warrant officers to the ground level, where they focused on sharing knowledge, reducing costs, and increasing productivity. This strategy allowed them to leverage junior leaders and synchronize resources to improve readiness. 

Before serving as executive officer of the 62d Engineer Battalion, Major Liffing served as a platoon leader, company executive officer, company commander, observer/controller, and brigade engineer. He holds a bachelor's degree from the Colorado School of Mines and a master's in business management from Norwich University. He is a registered professional engineer in Kansas and is currently assigned to the Fort Worth District of the U.S. Army Corps of Engineers.

Second Lieutenant Holloway is the 62d Engineer Battalion maintenance officer. He holds a bachelor's degree from Washington State University.

Chief Warrant Officer Four Cheek served for 12 years as an enlisted Soldier before receiving his warrant. He served in the 62d Engineer Battalion as battalion motor technician. His education includes the Warrant Officer Candidate, Basic, and Advanced Courses; Engineer Equipment Repair Course; Contracting Officer Representative Course; and Army Basic Instructor Course.