Commanding an Army Field Support Battalion

QLLEX: Real-World Training in Fuel and Water Supply
ARCENT–Theater Common Operating Picture Training Movement Control Teams
Kuwait. Camp Arifjan, Friendship II at during Exercise Support Brigade, Army Field Battalion, 401st from the 2d wheeled vehicle items before signing for a high-mobility cover, a Soldier inventories basic-issue commanding an AFSBn in Kuwait. On the page describes one officer’s experience commands, and sustainment support program managers, life cycle management integrates the activities and capabilities of for specific missions. It synchronizes and situations and has tailored capabilities functions in contingency deployment manages Army pre-positioned stocks in multiple operations. An AFSBn normally (AFSBn) to provide constant support for on the battlefield. When required, an AFSB acquisition, logistics, and technology support operational arm, the Army field support Cover: As the Army Materiel Command’s—Lieutenant Colonel David L. Corrick, USAFR (see address below) Army Sustainment also is available on the World Wide Web at http://www.alu.army.mil/alog. Mission: Army Sustainment is the Department of the Army’s official professional bulletin on sustainment. Its mission is to publish timely, authoritative information on Army and Defense sustainment plans, programs, policies, operations, procedures, and doctrine for the benefit of all sustainment personnel. Its purpose is to provide a forum for the exchange of information and expression of original, creative, innovative thought on sustainment functions. Disclaimer: Articles express opinions of authors, not the Department of Defense or any of its agencies, and do not change or supersede official Army publications. The masculine pronoun may refer to either gender. Reprint: Articles may be reprinted with credit to Army Sustainment and the author(s), except when copyright is included. Distribution: Units may obtain copies through the usual distribution system (DA Form 2129). Private domestic subscriptions at $30.00 per year and international subscriptions at $42.00 per year are available by visiting http://bookstore.gpo.gov on the Web. Subscribers should submit address changes directly to Army Sustainment (see address below). Army Sustainment also is available on the World Wide Web at http://www.alu.army.mil/alog. Postmaster: Send address changes to: EDITOR ARMY SUSTAINMENT/ALU/2401 QUARTERS RDP’T LEE VA 23801–1705.
By Major General James L. Hodge

The concepts presented in ADP 4–0 will be expanded upon in ADRP 4–0 and within other key sustainment doctrinal literature published over the next 4 years as part of our Doctrine 2015 efforts.

I encourage each of you to take an active role in helping us to develop our collective sustainment doctrine. Only with recent and relevant input from the field can we ensure that our sustainment doctrine not only addresses the operational doctrine in development but is also applicable to the way operations are conducted today and will be conducted into the future.

To learn more about sustainment doctrine and get involved in the process, visit our “Sustainment Unit One Stop” portal at http://www.cascom.army.mil/unit.aspx. Within the doctrine portion of each unit-oriented page, you will find links to current doctrine on AKO, to selected drafts of new manuals in development, and to the MilWiki portal, where you can add your thoughts and knowledge to new ADPs. Remember, your involvement in this process is essential if we are to get the most out of the Doctrine 2015 initiative.
QLLEX: Real-World Training in Fuel and Water Supply

The great bulk of the Army's petroleum and water units are in the Army Reserve. QLLEX is an exercise that allows Reserve units to train at the tactical, operational, and strategic levels across the United States.

Delivering bulk petroleum and purifying water may not compare in excitement to jumping out of airplanes or shooting weapons, but over 2,200 Army Reserve logistics Soldiers would disagree. Those Soldiers had the opportunity to demonstrate their skills and provide real-world fuel and water support during the 2011 Quartermaster Liquid Logistics Exercise (QLLEX).

Quartermaster battalions and companies conducted echelons-above-corps bulk petroleum distribution, water purification and distribution, and field services (laundry and shower) support during the first 2 weeks of June 2011. A total of 64 units at 6 locations across the continental United States (CONUS) delivered 3.25 million gallons of petroleum and produced 479,000 gallons of water with the assistance and support of Defense Logistics Agency (DLA) Energy, the Army Quartermaster Center and School, and the Army Forces Command (FORSCOM).

Multifunctional Training

QLLEX started 31 years ago as the Petroleum Oil and Lubricant Exercise (POLEX) and developed into QLLEX in 2004. Although the initial focus was on petroleum, oils, and lubricants (POL), the exercise has evolved to have a much broader focus. QLLEX has become a multifaceted, multicomponent, multifunctional, and multiservice exercise. No other CONUS-based exercise provides such a broad suite of real-world training opportunities for Soldiers.

The 316th Expeditionary Support Command (ESC) sponsored the exercise, and the 475th Quartermaster Group, under the leadership of Colonel Philip Foster and Command Sergeant Major Mark Standinger, served as the exercise headquarters. The 475th Quartermaster Group is headquartered in Farrell, Pennsylvania, and is one of three quartermaster groups in the Army Reserve. When the 49th Quartermaster Group, the Army’s only active-duty quartermaster group, is inactivated on 1 October 2012, more than 90 percent of the Army’s liquid logistics assets will reside in the Army Reserve.

For QLLEX, the 475th Quartermaster Group located its exercise headquarters at Fort A.P. Hill, Virginia. The other sites involved in the exercise were Fort Dix, New Jersey; Fort Eustis, Virginia; Fort Lee, Virginia; Fort Pickett, Virginia; Fort Bragg, North Carolina; Fort Huachuca, Arizona; and San Pedro, California.

Brigadier General Peter Lennon, the commander of the 316th Expeditionary Support Command, observed:

"QLLEX is an important exercise, not only to the 316th but to the Army Reserve and the Army overall. This is the major exercise in which we train at the tactical, operational, and strategic levels, from connecting the pumps and the hoses all the way up to coordinating with our strategic partner agencies. It’s the only Reserve exercise that demands this level of wholesale distribution; our support to customers with real-world missions dictates that we choreograph the delivery of hundreds of thousands of gallons of fuel and water transiting the exercise area of operation. It is not just a POL truck company operating from point A to point B. While that’s an important component, it’s only a piece of QLLEX. What the customer may not see is the strategic coordination necessary for efficient and effective battlefield support.

How do we coordinate with our national partners and international partners to get fuel into an austere environment, perhaps a less than benign environment at the outset of a contingency operation? We’ve got to be efficient and ready as more of the responsibility for fuel and water is likely to fall on the Reserve components, primarily the Army Reserve. The AC structure for fuel and water distribution and production is significantly reducing as a result of force structure adjustments. We must have Soldiers who are trained and ready to respond very quickly."

DLA Support

DLA Energy Americas provided bulk petroleum and coordinated delivery to customers at the 8 exercise locations across CONUS. DLA Energy Americas conducted pre-inspections on fuel tankers and certified the vehicles to deliver fuel. Without the support of DLA Energy Americas, the exercise would not have been possible. DLA Energy Americas absorbed the risks and turned over “real-world” delivery of fuel to QLLEX units.

"[QLLEX] gives us alternative means to deliver fuel to the warfighter in lieu of using commercial assets," noted Colonel William Keyes, commander of DLA Energy Americas. “QLLEX is moving fuel that will be in aircraft tonight flying to places around the world. As the Army changes force structure and has moved more assets into the Army Reserve, QLLEX has become more important.”

Real-World Training

It is the real-world environment rather than an exercise environment that sets QLLEX apart from many other training events. Units participating in QLLEX completed 88 real-world missions, drove more than 212,000 line-haul miles, and used 1,021 vehicles. Before units can deliver fuel, petroleum labs must test samples. The Army Petroleum Center at Fort Belvoir certified every lab used in QLLEX before allowing testing of fuel. Army preventive medicine specialists had to certify water as potable before allowing it to be used for drinking or cooking.

“Success is being able to deliver the product,” Brigadier General Lennon said. “What a lot of people don’t realize is that QLLEX is a real-life mission. It is providing real-life fuel in a real-life environment to real-life customers. If we don’t deliver the fuel, then that installation ceases to have fuel to execute their missions. Mission failure here is not exercise mission failure. It is real-life mission failure. We have not missed a beat.”

The Petroleum and Water Department of the Army Quartermaster Center and School also played a key role in QLLEX. The school’s Petroleum Training Facility (PTF) served as a Defense fuel supply point during the
exercise. Calvin Cropper, the PTF manager, said that the facility issued 100,000 gallons of fuel and received 450,000 gallons.

Jose Hernandez, the PTF officer in charge, said that QLLEX offers an opportunity to train on the inland petroleum distribution mission. “The Army has a responsibility to move fuel forward in any theater of operations,” Hernandez said. “The 475th [Quartermaster Group] is replicating that mission.”

In addition to normal fuel and water purification operations, the Department of the Army G-4 arranged for demonstration of an expedient water packaging system (EWPS). With Soldier support, bulk water drawn from ponds located at the training sites was purified and transported to the EWPS for final testing, processing, and packaging into 28,550 personal bottles. Units at each location provided their own life support, including cooking, laundry and bath, personnel, and maintenance support. Many non-QLLEX participants also made use of the QLLEX-provided laundry and shower services.

“This is the training platform for full-spectrum operations, all the way from a small humanitarian operation to [a Hurricane] Katrina to a Haiti [earthquake relief] mission” all the way up to a major theater of operations,” Brigadier General Lennon said. “We are practicing Soldier skills at all levels, whether they are an E-2 or an E-3 producing water, testing water in the lab, or driving water or fuel around the battlefield, all the way up to the majors and lieutenant colonels doing coordination with our agency partners such as DLA.”

Major General Raymond Mason, the FORSCOM Deputy Chief of Staff, G-4, at the time (and now Lieutenant General Mason, the Deputy Chief of Staff, G-4, Department of the Army), had the opportunity to observe QLLEX for the first time. He liked what he saw:

“Well, I am very impressed. I will tell you that right off the bat. When I saw the map of the units all over the United States, frankly not only was I surprised, I was very impressed. I had no idea that it was expansive, with units from the west coast to the east coast of the United States. With those type of distances, for the 475th POL Group, a magnificent unit, to be able to command and control that, I think it is outstanding training for the brigade commander himself, the battle staff; and all those battalions that are out there.

“It is a one-of-a-kind exercise,” said Lieutenant Colonel Pamela Glotfelter, the support operations officer for the 475th Quartermaster Group. “There is no other exercise out there that gives these Soldiers the opportunity to do as much as we do at QLLEX.”

**COLONEL PHILIP C. FOSTER, USAR, COMMANDS THE 475TH QUARTERMASTER GROUP, HEADQUARTERED IN FARMINGTON, PENNSYLVANIA. HE HAS A B.A. DEGREE IN JOURNALISM FROM HENDERSON STATE UNIVERSITY AND A M.A. DEGREE IN STRATEGIC STUDIES FROM THE ARMY WAR COLLEGE. HE IS A GRADUATE OF THE FIELD ARTILLERY OFFICER BASIC AND ADVANCED COURSES, QUARTERMASTER OFFICER ADVANCED COURSE, PETROLEUM OFFICERS COURSE, MULTIFUNCTIONAL ADVANCED Sustainment Training, Quartermaster Support Officers Course, Army Command and General Staff College, and Army War College.**

### The S–4 in a Provincial Reconstruction Team

An officer assigned to serve as the S–4 of a provincial reconstruction team (PRT) must be able to operate in a joint environment, run full-spectrum logistics operations, train and develop an S–4 staff section during the 3-month train-up to deployment, and lead that staff in austere conditions. He must be a first lieutenant or captain, and he needs experience in two of the following duty positions: platoon leader in a forward support company (FSC) or executive officer, movement control officer, or assistant staff officer in a brigade support battalion. He must be adaptable and highly motivated, and he must possess great organizational skills.

However, no handbook or field manual is currently available to assist the junior logisticians who are chosen for this assignment. This article will attempt to partially fill this gap by discussing what a PRT is, its mission, organization, and training, and the various roles played by the PRT S–4.

**PRT Mission**

A PRT is an interin civil-military organization designed to operate in semipermissive environments, usually following open hostilities. The PRT is intended to improve stability in a given area by helping to build the host nation government’s legitimacy and its effectiveness in providing security and essential services for its citizens.

PRTs are a key component of the “build” portion of the clear-hold-build model of counterinsurgency that the Army is currently employing. In Afghanistan, PRTs are typically responsible for one province within a regional command. According to the International Security Assistance Force PRT mission statement, PRTs “will assist the Islamic Republic of Afghanistan to extend its authority, in order to facilitate the development of a stable and secure environment in the identified area of operations, and enable Security Sector Reform (SSR) and reconstruction efforts.” Currently, 27 PRTs are operated by various nations in Afghanistan.

Joint operations are essential to the success of each PRT operated by the United States, as demonstrated by the evolution of the PRT from an autonomous Army civil affairs mission to the robust joint operation of today. PRTs have pulled together the combined resources of the Army, Navy, Air Force, U.S. Agency for International Development, Department of State, and Department of Agriculture to make the PRT the most flexible and capable civil-military operation in the fight.

Before the PRT, these U.S. Government agencies were susceptible to inadvertently duplicating each other’s efforts. The new PRT model has created synergy across this spectrum of agencies and allowed each to maximize its strengths and more effectively support civil-military operations.

**PRT Composition**

Approximately 80 military and 2 or 3 civilian personnel are assigned to each U.S. PRT. The command team is led by either an Air Force lieutenant colonel or a Navy commander; the PRT commander’s branch of service will coincide with the branch of the enlisted personnel in the S–1, S–4, S–6, and information operations staff sections. This allows the PRT commander a working foundation from which to build his staff’s standard operating procedures (SOPs). It also allows bottom-up refinement by staff members, who can filter information and present it to the PRT commander in a form that is most suitable for him.

To ensure seamless communication between the battle-space owner and the PRT command team, the S–3, S–4, and first sergeant positions are active-duty Army personnel. Both the S–3 and the first sergeant come from a combat arms background. Their understanding of stability operations in a full-spectrum environment facilitates a smooth insertion of PRT operations into the battle-space owner’s operations matrix. The S–3 and the first sergeant also bring a wealth of knowledge and experience to the train-up process.

Before their PRT deployment, very few of the Air Force or Navy personnel assigned to a PRT mission have conducted ground maneuvers in a combat environment. Their predeployment training is largely guided by the PRT training teams at Camp Atterbury, Indiana. However, tactics, techniques, and procedures are the individual PRT’s responsibility, and the S–3 and
PTT Train-Up

Although training is conducted for the S-4 staff during predeployment training to familiarize the various S-4 personnel with Army logistics systems, it is not sufficient. The PRT train-up focuses on ensuring that all personnel are prepared, moving many aspects of the relationship and the logistics mission. It is imperative that the PRT S-4 create an environment that is conducive to training each section on the systems and regulations that they will use to accomplish the logistics mission. The PRT S-4 must also ensure that staff members are immediately ready to ensure adherence to Army logistics regulations.

Investigating and developing each section from the start is the key to a successful deployment. Before arriving at Camp Atterbury, each PRT S-4 should contact his counterpart operating in the area of operations to which he will deploy. This will allow the incoming S-4 to gain a better understanding of the operating environment in which he and his staff will function. More importantly, by gathering information on lessons learned from his counterpart in the theater, the incoming S-4 can develop a thought process organization and key tasks for the logistics sections.

For example, the PRT liaison officer from the logistics section will conduct PRT Property Book Unit Supply Enhanced (PBUSE) and supply support activity operations from the supporting airbase. The individual chosen for this assignment will work separately from the PRT and will liaise with the theater liaison officer for his upcoming mission. Correspondence with his in-theater PRT S-4 counterpart, the incoming PRT S-4 can gather and analyze this information, allowing him to properly select and prepare the liaison officer for his upcoming mission.

Overall, the various components of the military have many similarities in how they conduct logistics. Across the Armed Forces, the supply section acquires, manages, receives, stores, and issues all classes of supply required to equip and sustain the force. Included in these duties are determining requirements for the unit and forwarding requests up through channels to the appropriate issuing authority. However, the systems used to manage these tasks are very different. By working with the PRT S-4, the PRT S-4 can schedule blocks of time for each section, so the S-4 manages transportation for the logistics sections.

The main focus during train-up for the maintenance section should therefore be on using the Standard Army Maintenance System–Enhanced (SAMS–E). Use of SAMS–E is crucial to the success of the maintenance section, allowing the section to generate and read key reports, such as the not-mission-capable report (better known as the 026 report). When colocated with an FSC, the PRT S-4 should coordinate with the FSC commander to have the PRT’s equipment information entered and managed by an FSC clerk. This will greatly increase maintenance productivity. PRT missions have played a significant role in U.S. and coalition operations. An assignment as a PRT S-4 offers junior officers a great opportunity to develop their skills while supporting our Nation’s stability efforts in Southwest Asia.
Combat Sustainment Support Soldiers in Special Forces

Logistics Soldiers working in an Army Special Forces unit need to be able to handle several logistics jobs, and they must have Special Forces training so they can function with and support their units.

Combat units in today’s military require logistics support personnel with specialized knowledge and training to support the efforts of the “trigger pullers.” Without organizational support, either the combat speciality Soldiers will be unable to conduct combat operations because they are too busy doing the tasks necessary to keep a unit operational or the support tasks will go undone and the unit will be rendered unable to conduct combat operations. Nowhere is this truer than in special operations units. Although a vehicle mechanic is absolutely necessary to keep an Army Special Forces operational detachment alpha (ODA) in the fight, not just any vehicle mechanic will do; she or he must provide the level of support needed. This article will provide an overview of training sustainment personnel for Special Forces units from the perspective of a logistics officer assigned to the 5th Special Forces Group (Airborne).

Special Training Needed

Because of the differences between Special Forces units and other Army units, Soldiers assigned to a Special Forces group require additional training. Keeping Soldiers from these training opportunities because “we’re too busy” or “you don’t need that school” only serves to restrict their abilities to support the mission. Skills training, such as air assault, pathfinder, jumpmaster, and sling load inspector, provides qualifications that enable sustainment Soldiers to better support the mission.

The 528th Special Operations Support Battalion, before its conversion to the 528th Sustainment Brigade, developed a multiskilled Soldier concept. The point of this program was to formalize military occupational specialty (MOS) cross-training across the battalion in order to create multifunctional Soldiers capable of performing multiple tasks as they were attached to operational units. Since Special Forces units are frequently understrength, this cross-training can help overcome personnel shortfalls by providing one Soldier with two specialties.

In a Special Forces battalion, the Soldiers most frequently attached to ODAs are MOS 92G (cook) and MOS 91B (wheel vehicle mechanic). Formalized cross-training under the multiskilled Soldier concept would give an ODA not just a cook or a mechanic but a cook who is able to manage supply and ammunition requisitions or a mechanic who is certified to work on a much broader range of military equipment than just trucks. Every ability that these Soldiers possess beyond their primary MOS enables the ODA to focus more on operations and less on sustainment.

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Much of the necessary training is available from Army sources. Hands-on courses in topics ranging from supply systems to vehicle recovery to sling load inspector are available at Fort Lee, Virginia. Training should focus on developing a Soldier’s skills across related MOSs. All quartermaster MOS Soldiers need to know as many areas of supply as possible. All vehicle maintenance Soldiers need to be able to repair as broad a range of military equipment as possible.

Nonstandard Training

Nonstandard training is also required because of the range of Special Forces operations. Mechanics must be trained to repair and modify civilian vehicles, armorers need to receive training on foreign weapons, and supply sergeants must develop cultural awareness and language skills to allow them to purchase supplies from local merchants.

Many of these skills have not been frequently used during operations in Iraq and Afghanistan because of the low availability of conventional means of supply and contracted mechanics. However, these assets may not be present at the beginning of the next war. A formalized training plan to develop broad skill sets will increase the flexibility of organic logistics, not only in the contemporary operational environment but also in future missions.

Beyond low-level Soldier skills training, Special Forces logistics personnel must develop the ability to manage sustainment operations at a lower level than conventional forces. Because of the decentralized operations conducted by Special Forces, a company supply sergeant may have to manage sustainment for multiple ODAs dispersed across hundreds of miles with little support from his parent battalion.

Training on topics such as support operations, contracting, and joint and multinational logistics can develop the knowledge needed to manage this mission by relying in with Army or joint and multinational partners. Developing knowledge typically found on higher level staffs at the battalion and company levels will increase the ability to operate independently. This is embraced operationally by Special Forces and must be embraced by supporting personnel.

Required Special Forces Skill Qualifications

Beyond developing logistics expertise, Soldiers supporting Special Forces must have various special skill qualifications. Some of this training develops a knowledge base that will help Soldiers fit in with a Special Forces unit. Other training provides qualifications and knowledge that a Soldier can use to assist an ODA. Sustainment Soldiers being certified to rig a sling load or having the knowledge to assist in setting up a drop zone or landing zone increases the capabilities of a combat unit. Many of these skills are not commonly used in the contemporary operational environment, but a more dynamic or kinetically oriented mission would benefit from many personnel having these qualifications.

Sustainment Soldiers are integral to the success of a Special Forces unit. The level of training given to these Soldiers must be commensurate with the demanding nature of the mission they are supporting. Formalized cross-training, knowledge development, and special skills qualifications will increase the value of sustainment Soldiers to all areas of Special Forces operations.

Captain Zachery Briscoe is the Service Detachment Commander for the 2d Battalion, 5th Special Forces Group (Airborne), at Fort Campbell, Kentucky. He holds a Bachelor’s degree from the Citadel and is a graduate of the Combined Logistics Captains Career Course.
Supporting a Special Operations Task Force During the Withdrawal From Iraq

BY MAJOR THOMAS B. CRAIG

During the spring and summer of 2010, U.S. Forces–Iraq worked hard to reduce the number of troops in Iraq to below 50,000 by 1 September. During this massive and well-orchestrated drawdown, Special Operations Task Force–Central (SOTF–C) maintained its force level and repositioned operational detachments to continue to conduct combined lethal operations and target enemy networks seeking to destabilize the Government of Iraq.

During the Responsible Drawdown of Forces, Special Operations Task Force–Central ensured that its units and outstations had sufficient supplies and equipment to maintain pressure on the enemy.

The reduction in forces throughout the theater began to change the operational environment; no longer were forward operating bases (FOBs) and patrol bases always within easy reach of Army Special Forces operational detachments alpha (ODAs) and Navy sea, air, and land team (SEAL) platoons. U.S. forces made a more deliberate effort to keep off the major roads during daylight hours, whenever possible, to avoid Iraqi perceptions of U.S. involvement during the important Iraqi election period and the formation of the new government.

These changes made the operations that the task force’s ODAs and SEAL platoon conducted every day all the more important, both in maintaining the Iraqi Government’s pressure on enemy networks and in painting a clear picture of enemy activity as battalions and brigades departed the theater.

ODA Independence

As U.S. forces drew down, SOTF–C continued to ensure that its outstations maintained a level of support that allowed them to stay focused on their mission. SOTF–C accomplished this goal by focusing on two parallel actions: providing ODAs the tools they needed to sustain themselves independently of thinning U.S. forces and reducing their requirements to become more expeditionary. SOTF–C recognized five key requirements to sustain ODA independence from departing conventional forces:

- Independent over-the-horizon communications that were separate from conventional networks, which were going away.
- Increased force protection measures as U.S. forces departed.
- Larger bulk food and water storage facilities as the length of time between resupply increased for outstations. (As U.S. forces grew smaller, outstations needed to be able to sustain themselves with less frequent resupply missions.)
- More reliable power-generation options for outstations far from conventional U.S. support. (Each location had to stand alone and be self-supporting.)
- Materials-handling equipment (like forklifts and cranes) to replace the departing equipment belonging to redeploying units.

These requirements were filled by transferring equipment from departing Army units elsewhere in the theater. SOTF–C was able to link an emerging requirement in one task force location with excess resources at a conventional base by staying closely tied in with the Combined Joint Special Operations Task Force–Arabian Peninsula (CJSOTF–AP) headquarters and the U.S. divisions as they thinned their lines. U.S. forces recognized that special operations forces in Iraq were still engaged in the fight, partnered with key Iraqi Special Operations Forces units and other internal security elements, and gave them the logistics priority needed to maintain pressure on the enemy.

Property Turn-In

At the same time, SOTF–C recognized its own need to be lighter and more agile. After 7 years in Iraq, some outstations had grown beyond their mission-essential needs and wanted to shed excess materiel so they could reposition quickly to other areas of Iraq when needed. SOTF–C launched a massive excess property turn-in program designed to pare the outstations down to the materials and resources they used and needed daily and to remove the excess property that could slow down re-location and the eventual withdrawal and base returns. From April to August 2010, SOTF–C turned in over 1,600 excess property items worth more than $29 million. Commanders at every level took a hard look at their true mission requirements and shed unneeded equipment to “lighten the rucksack” at every base,
large and small. As the task force consolidated and relocated ODAs, targeted turnover of excess property to partner forces during the SOTF–C base returns was also a valuable and efficient means to reduce excess and support partner units at the same time.

**Mobility Packages**

As the operational environment in Iraq changed, so did the mobility requirements for each ODA and SEAL platoon in the sector. An ODA may have conducted a partnered combat operation using painted M1151 high-mobility multipurpose wheeled vehicles one day, and the next day it may have transitioned to low-visibility movements in up- armored nonstandard tactical vehicles. The ODAs also maintained their requirement for RG–33 mine-resistant ambush-protected vehicles and continued the logistics support to keep those platforms in the fight.

Fielding a diverse mobility package that fit into each ODA and SEAL platoon’s unique operational environment was a major goal for the logisticians at the SOTF–C headquarters. Each detachment had unique needs for up-armored vehicles, and SOTF–C procured the right color and style of vehicle for each area through continued close coordination with the withdrawing U.S. divisions, which continued to offer their priority of support to CJSOTF–AP. The SOTF–C painted and modified vehicles when necessary to produce the right platform for the right location and then moved them to points of need.

SOTF–C forces continued to mitigate the operational impact of the drawdown by coordinating with adjacent units as they thinned and consolidated their lines and by becoming more expeditionary and reducing their logistics footprint to be more agile. Special operations forces support units in Iraq remained focused on sustainment operations that allowed ODAs to stay closely linked with their key Iraqi partners into the Operation New Dawn era.

**Major Thomas B. Craig** is a special forces officer, the commander of the Special Forces Qualification Course Phase IV, and an instructor for military occupational specialty 18A (special forces officer) at the John F. Kennedy Special Warfare Center and School at Fort Bragg, North Carolina. He holds a bachelor’s degree from Virginia Military Institute.
The Training of Movement Control Teams

BY LIEUTENANT COLONEL LILLARD EVANS, MAJOR KEVIN M. BAIRD, AND CHIEF WARRANT OFFICER 4 KI HAN

Movement control has been a critical link in sustainment operations in Iraq, Afghanistan, and other contingencies. However, a standardized model for training movement control teams (MCTs) for deployments does not exist. While the National Training Center at Fort Irwin, California, and the Joint Readiness Training Center at Fort Polk, Louisiana, are useful training venues for most sustainment units, the small number of daily convoys and the focus on brigade combat-team-centric training limit the ability of those training venues to prepare MCTs.

Force Structure Affects Training

The Army has 5 active-duty movement control battalions (MCTs). Historically, most MCTs are deployed to support overseas contingency operations in Iraq, Afghanistan, and other parts of the world. MCTs are assigned to combat sustainment support battalions, and a limited number of MCTs are based at home station to become standardizing the training of MCTs. With the increase in the number of MCTs, MCTs at home station are becoming more challenging as they reach the cap on the number of MCTs that can be deployed.

Automation Training for MCTs

MCTs use the Transportation Coordinators' Automated Information for Movements II System (TC–AIMS II) as the Army's system of record for movement management and movement control. Besides TC–AIMS II, they also use many joint systems of record and web-based systems, such as the Single Mobility System, the Intelligent Road/Rail Information Server, and the Integrated Data Environments. They have found that the TC–AIMS II system is more user-friendly and intuitive than the other systems.

The Army has 5 active-duty movement control battalions (MCTs) across the globe. These units have a long time to prepare for their upcoming deployments. They have a limited amount of time to prepare for their deployments, and the time they have is often limited due to the logistics of deploying a large number of MCTs.

Proposed Movement Control Team Courses

The proposed movement control team courses are designed to prepare MCTs for their upcoming deployments. The courses are designed to be flexible and allow for customization based on the specific mission of the MCT. The courses are designed to be taught by subject-matter experts from the MCB staff.

Organizing Standardized Training

Because of the distribution of MCTs across the continental United States (CONUS) and the ongoing deployments of MCTs, we propose that the three MCBs based in the continental United States take on the mission of training all MCTs as required. Retaining an ongoing training capability for MCTs is critical to maintaining the technocratic leadership of movement control Soldiers and the MCTs as they progress through the Army Force Generation Cycle. As the active-duty MCBs rotate through deployments, the mission to train MCTs will remain at home station. This same model can be applied to the MCBs and MCTs stationed overseas.

Learning From Units in Place

Teleconferences or video teleconferences with the deployed units that are executing the projected missions bring added focus to the training. They assist leaders in developing the scenarios that will be used during the culminating training exercise before deployment.

The 4-day scenario-based exercise tests the MCT's ability to apply knowledge gained during the formative training to a real-world scenario. In order to make the training more realistic and applicable, the scenario is built around the likely deployed mission set for the training unit. The scenario is designed to test leaders, Soldiers, and the team as a whole on their ability to operate systems, manage workflow and products, and integrate into a functioning team.

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<td>2 days</td>
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<tr>
<td>Host Nation Tracking Operations</td>
<td>Conduct an array of planning and coordination activities</td>
<td>1 day</td>
</tr>
<tr>
<td>MCT Operations</td>
<td>Plan and manage sea deployment through WPSS and orientation to sustainment management</td>
<td>5 days</td>
</tr>
<tr>
<td>Port Operations</td>
<td>Plan and manage sea deployment through WPSS and orientation to sustainment management</td>
<td>15 days</td>
</tr>
<tr>
<td>Movement Tracking</td>
<td>Track global movement of personnel and equipment using TC–AIMS II</td>
<td>1 day</td>
</tr>
<tr>
<td>Movement Control (Operations)</td>
<td>Integration of tracking and management systems</td>
<td>4 days</td>
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</tbody>
</table>

Maj. Kevin M. Baird is an exchange officer with the Canadian Operational Support Command in Ontario, Canada. He previously served as a support operations officer for the 49th Transportation Battalion (Movement Control). He is a graduate of the Amherst Officer Basic Course, the Combined Logistics Captain Career Course, the Army Command and General Staff College, and the School of Advanced Military Studies.

Chief Warrant Officer 4 Ki Han is the mobility officer for the 49th Transportation Battalion (Movement Control). He is a graduate of the Amherst Officer Basic Course, the Combined Logistics Captain Career Course, the Army Command and General Staff College, and the School of Advanced Military Studies.

LIEUTENANT COLONEL LILLARD EVANS is the commander of the 49th Transportation Battalion (Movement Control). He holds a B.S. degree in Civil Engineering from South Carolina State University and an M.S. degree in Civil Engineering from the University of Alabama at Birmingham. He is a graduate of the Transportation Officer Basic Course, the Combined Logistics Officers Advanced Course, and the Army Command and General Staff College.

Maj. Kevin M. Baird is an exchange officer with the Canadian Operational Support Command in Ontario, Canada. He previously served as a support operations officer for the 49th Transportation Battalion (Movement Control). He is a graduate of the Amherst Officer Basic Course, the Combined Logistics Captain Career Course, the Army Command and General Staff College, and the School of Advanced Military Studies.
Who Pays the Bill? Budget Planning in the Military Decisionmaking Process

By Major Fernando Pascual, Spanish Army

Can we imagine a chief of staff telling his commander, “Our maneuvers have been successful, but I know nothing about their costs”? This statement would be the beginning of a failure. We know we must consider a maneuver’s costs, troop numbers, fuel requirements, and camp facilities. If we are concerned about these real problems in maneuvers, why do we neglect them when planning an operation?

This article illustrates the need to include budget planning during the military decisionmaking process (MDMP) and to include budget estimation in the course of action (COA) analysis and comparison. Later, once a COA is selected, monitoring the budget will allow the commander to track the operation and compare it with the established plans and orders.

The Military Decisionmaking Process

As stated in Field Manual 5–0, The Operations Process, the MDMP consists of the following phases:

- Receipt of mission.
- Mission analysis.
- COA development.
- COA comparison.
- COA approval.
- Orders production.

The development of these phases allows the staff to produce operation plans and orders, which are created following the commander’s guidance and the best options developed by the staff.

When a commander receives a mission, the staff begins to analyze it, developing a frame of reference to guide the staff work that will follow. After this, the COA analysis begins and the staff looks for different options to accomplish the mission. Later, the staff uses the COA analysis and comparison to present a recommended COA to the commander. The commander’s final decision opens the orders production phase, where the staff produces the operation plans and orders.

The complete process is based on developing different COAs using various criteria (such as maneuver, firepower, and protection) and comparing them in a decision matrix to select the best COA to accomplish the mission.

Project Budget Planning

A project is an effort to reach a specific objective, achieved by developing interrelated tasks using specific resources. The objective of every project is based on four factors: scope, program, budget, and customer satisfaction.

The life cycle of a project is divided into four phases: needs identification, project definition, project development, and project closing. After a person, enterprise, or country identifies a need, the next step is to define the exact and specific requirements to solve that need. (For example, we may need a car, and our requirement could be that the car must have enough seating for six people.) After considering these requirements, a team can be assigned to prepare a project that develops defined and specific tasks to achieve all previously defined aspects.

When the assigned team begins preparing for a project, one of its main concerns is the budget estimation. Before determining how and when all tasks will be completed, it has to present an initial estimation of all project costs. After this, when the plan is approved, the team will develop a detailed budget plan and monitor the costs during program development to ensure that all costs fall within the planned budget.

Initial budget planning allows the project manager to know if the project will be developed successfully or if he will need more funds to complete the required tasks. All tasks are developed according to the initial budget plans, and subordinates are responsible for their own slices of the pie.

By planning an initial budget and monitoring its execution, the project manager knows at all times the expenditures and the progress made in relation to the available budget plan. The main goal of this process is to provide a long-term vision about the development of the project and to adhere to the available budget.

Knowing the budget, the project manager will know if the project will be successful or if he will need to request more funding. But even in the latter case, he will recognize the need in time to prevent interruptions in the project. This capability avoids the need for a sudden budget increase and the probable veto of that increase, which would stop the entire project and create a funding gap for the project.

If we think about the MDMP as a project, the main shortcoming of this process is the lack of budget planning. We develop the mission we are given and provide our commander with the best option to accomplish it. We perform the mission analysis, COA development and comparison, and COA selection and development; however, in none of these phases do we study a required budget.

Budget Estimation in the MDMP

We can include the budget planning process in the MDMP and create an initial estimate for every mission. First, the budget should be mentioned in the MDMP as a constraint in the mission analysis section. We cannot think of the mission as free of charge, and we need to know of any budget limitations in order to develop the mission. Without defined limits, we should at a minimum state broad requirements, such as “as cheaply as possible while accomplishing the mission” or “reduce costs through contractor use.” These should be one of the first inputs to show that the commander not only is focused on accomplishing the mission but also is concerned about minimizing costs.

Second, budget planning should be included during COA development. Just as we analyze different aspects of a COA (maneuver, firepower, and protection), we should include the cost estimate in the COA development. This new output of the COA development helps define the remaining outputs, making them more effective. In the case of a force deployment, taking into account transportation costs and available time could change the deployment planning.

Finally, the project plan should include an evaluation criteria in the COA comparison. We are accustomed to including maneuver, simplicity, fires, and mobility in the COA comparison, but we should also include the budget cost as a criterion. We are used to comparing the relative importance of cost in the entire operation, but the cost should not be the only criterion. In the case of a force deployment, we should consider transportation costs and available time could change the deployment planning.

In the end, the staff recommends which of the developed COAs offers the best solution, and the commander decides which one will be used and issues the final planning guidance.

Budget Estimation Framework

We have taken into consideration the importance of budget planning, but this article would be incomplete without a brief explanation of possible elements to include in a budget estimate. During COA development, we analyze the potential tasks and budget impacts because initial budget estimation requires a broad picture of the entire operation.

The first step is to analyze human resources requirements and estimate the total involved manning costs. The second step is to analyze material resources and estimate the costs of buying or renting resources. We should include not only the new materiel costs but also the organic means and exploitation costs, expressed as total cost percentage (normality modified to environmental conditions).

The third step is to quantify the funds allocated to contractors, like fuel suppliers, food and kitchen providers, and transportation enterprises. The fourth step is to consider infrastructure renting. We normally assume open-field installation, but recent experience shows an increasing trend toward renting existing infrastructure. The fifth step is logistics. Here we should include all transportation and movement costs as well as the maintenance costs during each phase.

Finally, we must consider contingency funds. This is money reserved to be used in unexpected situations. There is no defined amount because it depends on the operation, but as a general rule we should allocate 10 percent of the total budget to contingency funds.

Once the COA is selected, we allocate funds to the different units according to their respective missions, personnel, and means and we monitor their expenditures to ensure that they are staying within the budget. Monitoring the operational budget lets us know if one unit is spending more or less than expected so that we know if we should redistribute or request funds.

Budget planning is a vital factor to analyze during the MDMP because it gives the commander the ability to see if the operation can be funded appropriately and completed with the initially allocated funds. We cannot base our processes on the assumption that money will always be available and wait for the execution phase of an operation to realize that we have a massive budget shortage.

We must devise budget control measures and take immediate corrective actions to avoid final financial ruin. This is our mission as Department of Defense budget managers, and the application of these measures will assure taxpayers that their dollars are wisely and efficiently spent.

Major Fernando Pascual is the fires coordination branch operations officer of the North Atlantic Treaty Organization Rapid Deployment Corps–Turkey. He holds a master’s degree in advanced studies in logistics and defense systems technologies from Cartagena Polytechnic University and a master’s degree in operational research from Valencia University.

The author thanks Lieutenant Colonel Glenn R. Mosher and Lieutenant Colonel Miguel A. Aponte for their contributions to this article.
The goal of the Afghan First policy is to create lasting peace in Afghanistan by bolstering the nation’s economy, but money intended to support the counterinsurgency campaign can end up also funding the insurgency.

On 23 April 2010, the North Atlantic Treaty Organization (NATO) published the NATO Afghan First policy. This policy suggests that, whenever possible, NATO and the International Security Assistance Force (ISAF) will look first toward Afghan goods and services to accomplish missions, thereby “promoting the development of the Afghan private sector and supporting the economic development of the country.”

This policy parallels numerous texts on economic lines of effort in counterinsurgency (COIN) operations, notably Field Manual (FM) 3–24, Counterinsurgency, and Dr. David Kilcullen’s “Three Pillars of Counterinsurgency.” Both of these texts stress economic development as a critical aspect of COIN. FM 3–24 states that “after security has been achieved, dollars and ballots will have more important effects than bombs and bullets.” Dr. Kilcullen reminds the COIN warfighter that “tailoring [economic] efforts to the society’s capacity to absorb spending, as well as efforts to increase absorptive capacity, underpin other development activities.”

With these two texts in mind, the Afghan First policy was created with the goal of assisting in creating lasting peace in Afghanistan. However, implementing this policy has been rocky.

Know the Contractors

Aram Rostrom’s 2009 article for The Nation, “How the U.S. Funds the Taliban,” painted a scathing picture of the United States’ haphazard use of funds that are allocated to host-nation trucking (HNT) contracts. Rostrom’s article led to the longer and even more critical congressional report, “Warlord, Inc.” This report was prepared by the Subcommittee on National Security, Homeland Defense, and Foreign Affairs of the House Committee on Oversight and Government Reform.

The report shows in painstaking detail how money intended to support the ISAF COIN campaign ended up directly funding the insurgency. Although the report calls for intense contract oversight and audit procedures for future trucking contracts, it does not recommend a ground-up reevaluation of the implementation of the Afghan First policy as it relates to contracting. Further, it does not address the fact that potentially hundreds of other local and regional contracts may be funneling money to the insurgency in similar ways.

To ensure the success of the economic aspect of the ongoing COIN campaign, changes are required in every level of the contract acquisition and management process. The first step in this process is to identify the contractor. All regional contracting command offices in Afghanistan have a list of vendors for potential contracts—from manual labor to skilled labor and logistics services—but reports like “Warlord, Inc.” show just how little is often known about the contractors themselves.

As contracting in Afghanistan is a multibillion dollar industry, the list of all potential contractors needs more thorough vetting than has occurred in the past. In fact, an entire agency or team may need to be created solely for the purpose of this research. Such research should include who the owner of the company is and his historical ties to society. This is not to say that a former gunrunner cannot be an effective business partner, but offering funds to a known criminal, ISAF must seriously consider not only how much money is being paid for the contracted service but also who that money is going to.

Choose Afghan Contractors

An additional aspect to consider when vetting the list of potential contractors is the nationality of the contractors in question. The HNT contract, the largest of its type, pays hundreds of millions of dollars to contractors not based in Afghanistan. While the employees of the trucking companies are largely Afghan, the contractors pay those employees very little compared to what they receive from the United States and NATO for each mission. And because the contractors’ overhead costs are quite low, they pocket most of the money they receive for the contract. As such, hundreds of millions of dollars per year intended to bolster the Afghan economy instead flow to companies based in Pakistan, the United Arab Emirates, and the United States.

Although some economic models support a regional wealth theory—which means that by increasing the wealth of the surrounding countries, Afghanistan will eventually become wealthier—it is the long way to economic stability. Rather than paying enormous sums to contractors outside of Afghanistan, the process can be amended to ensure Afghan contractors alone are receiving bids. Unfortunately, this potentially creates a situation in which a less-capable contractor inside Afghanistan receives a contract rather than a foreign contractor who could perhaps provide better service and value. However, a less-equipped contractor who can provide tailored local service may be better suited to the task than an outside contractor who does not meaningfully engage at a local level. Afghanistan is a rural and tribal country, and business solutions that most engage the populace of a specific area are crucial to building provincial stability. Regardless, a long-term view must be adopted in cases like this because directly funding the economy of Afghanistan will eventually result in contractors whose quality will be on par with that of the surrounding countries.

Ensure the Money Is Well Spent

Ensuring that the contractors themselves are based in Afghanistan will not completely alleviate the irresponsible distribution of contract funds. The Central
Intelligence Agency World Factbook ranks Afghanistan 212 out of 229 countries in gross domestic product per capita based on purchasing power parity. Afghanistan has a 35 percent unemployment rate, with 36 percent of the population living beneath the poverty line and only 28 percent of the population literate.

Despite the billions of dollars in both aid and contracting spent over the last decade, Afghanistan remains one of the poorest, unhealthiest, and most uneducated countries in Asia. The massive influx of funds has not substantially raised the quality of life for the average individual, and stories of graft and corruption are common at the lowest levels of civic activity and at the highest levels of the Afghan Government.

Continuing to inject funds at a high rate without the infrastructure to absorb them will remain a destabilizing factor and of itself. If the United States and NATO forces are paying immense sums of money to local contractors, it is the responsibility of those organizations to provide the funds to ensure that they are distributed equitably. This is not to suggest that contractors should be forced to give up their hard-earned money to organizations that are not substantially raising the quality of life for the average individual, and stories of graft and corruption are common at the lowest levels of civic activity and at the highest levels of the Afghan Government.

From June 2010 through May 2011, the 17th Combat Sustainment Support Battalion (CSSB) operated the class I (subsistence) and water warehouse, supply support activity (SSA), class II (bulk petroleum) fuel farm, forward arming and refueling point, retail fuel point, ammunition supply point, and central receiving and shipping point (CRSP) at Bagram Airfield, Afghanistan. The battalion also sustained seven major hubs throughout Regional Command East (RC-East). As the only second CSSB to sustain RC-East, the 17th CSSB arrived at a critical time, when the number of forces in the region swelled from less than 70,000 to nearly 100,000 troops. To sustain the surge, the 17th CSSB had to expand its operations, particularly the CRSP.

The last step for increased oversight of contracting practices will prevail if enough money is thrown at the problem. Without critical oversight into how the contractor and the contract administering agency are performing with due diligence but all existing contracts need to be reevaluated for their value. Day laborers to perform janitorial tasks may make deployed life easier for Soldiers, but the money paid to those contractors may be used directly to counter the U.S. and NATO lines of effort.

These suggestions are not quick fixes. In addition to thoroughly vetting all potential contractors, ensuring that the contractors are not based outside of Afghanistan, and reexamining the process and requirements for initiating a contract, a theater-wide reeducation on the potentially deleterious effects of negligent contracting is needed.

Conditions on Arrival in Country

When we first arrived, our inland cargo transfer company (ICTC) operated the reception, staging, onward movement, and integration (RSOI) yard, which consisted of unit cargo containers and rolling stock. The contractors operated the central receiving point (CRP), consisting of sustainment containers for the SSA and materials for base operations.

As we became inundated with the equipment and supplies needed to support the arrival and sustainment of units deploying into the theater, we struggled with throughput at Bagram Airfield. At our peak, we had 1,273 containers in the pipeline headed for Bagram Airfield, entering from Pakistan through Torkham Gate and from Uzbekistan through Hairatan Gate.

Backlog Issues

Initially, we were not prepared to ingate, receive, and process this volume of cargo. One of our greatest challenges was space constraints. Our RSOI and CRP yards were dispersed and filled with frustrated cargo, some of which had been there for years. Many units and various nodes at the forward operating base (FOB) did not have the space to receive and store the cargo.

The CRP’s biggest customer, the SSA, received 60 percent of the containers ingated each day. At the largest SSA in Afghanistan with more than 11,000 lines, it operated on just over two acres of processing. When we first arrived, our ICTC arrived in theater at the same location the SSA occupied at the beginning of the war in 2001, when it only had 5,400 lines. For nearly 10 years, the demand for classes II (clothing and individual equipment), III (package petroleum, oils, and lubricants), IV (construction and barrier materials), and IX (repair parts) steadily increased, but the space allocated for this operation remained unchanged. Because of the limited space, the SSA could not accept containers. All containers had to be unloaded at the CRP and the contents transported to the SSA. Daily, the SSA received an average of 80 wooden pallets from the CRP and 60 463L pallets from the arrival/departure airfield control group. All SSA-bound cargo had to be cleared off the flight line within 72 hours of arrival, so the SSA was the SSA’s top priority for processing. The SSA-cargo that arrived at the CRP by ground was the second priority, making the backlog in the CRP increase significantly.

Personnel and Equipment Shortages

Another challenge we faced was a shortage of personnel and equipment. Our ICTC was in theater with less than half of its modified table of organization and equipment authorizations. Not only was the
ICTC required to operate the RSOI yard at Bagram, it also provided Soldiers and materials-handling equipment (MHE) at four additional FOBs. Supporting these ICTC were equipped with top handlers that could rotate 195 degrees clockwise and 105 degrees counterclockwise, which enabled the ICTC to maximize the limited amount of space in its yard and reduce the number of moves a RTCH needed to make to retrieve a container from a stack. The remaining RTCHs had a safety mechanism that limited the top handler’s movement to 105 degrees clockwise and 45 degrees counterclockwise, ultimately reducing the efficiency in the RSOI yard.

The contractor had a finite amount of MHE (six RTCHs, nine 10,000-pound forklifts, and four 4,000-pound forklifts), which was used to support the CRP and base operations. Because of competing requirements, the contractor’s MHE was often diverted from CRP operations to other locations at the FOB. Not having dedicated contractor MHE adversely affected CRP operations. The constant operation of this MHE and poor maintenance degraded its operational readiness rate, which also affected CRP operations. On many occasions, the ICTC had to shift MHE and personnel from the RSOI yard to the CRP to prevent an interruption in operations. The CRP also struggled with a high turnover rate in its yard operations. This allowed the ICTC to make use of the mobile retrograde team inventoried these containers and returned their contents to the supply point. Once we began to clear out frustrated cargo, we consolidated the RSOI yard and CRP personnel and MHE into one location. Because of competing demands, we had to reduce the number of U.S. forces in Afghanistan at approximately 175,000 and potentially reducing it even further, eliminating the requirement for an ICTC would make room for additional combat troops. Since the contractor was already conducting this operation, it did not seem that it would be too difficult for it to assume the ICTC’s workload. However, the process proved to be somewhat complicated and lengthy to implement. We met with the Defense Contract Management Agency numerous times to work out the details. We also had to submit letters of technical direction to the contractor before it would take on the ICTC’s cargo mission.

Because of all of these efforts, we were able to create the operations of the ICTC and the contractor. Although the consolidation of the CRSP brought the ICTC and contractor together, they continued to operate independently. The most challenging aspect of creating a CRSP was combining the operations of the ICTC and the contractor. Overcoming Challenges

The most challenging aspect of creating a CRSP was combining the operations of the ICTC and the contractor. Although the consolidation of the CRSP brought the ICTC and contractor together, they continued to operate independently.

To improve the operation, we realigned the contracting officer’s representative (COR) responsibilities from the battalion to the ICTC. This forced both operations to work together. The ICTC also had the right skill set to know what the contractor was supposed to do to operate a CRSP effectively. We assigned a COR and assistant COR to each contract for container, cargo, and yard operations and made this their sole function. Previously, CORs had been assigned to multiple contracts, but we found that this did not allow them to consistently evaluate the performance of each contractor. Assigning the ICTC as the COR for the contractors ensured greater oversight.

Although the JDMC, the COR responsibilities, our ICTC initially encountered challenges. The performance work statements contained in the Logistics Civil Augmentation Program IV contract were very vague and lacked performance metrics. However, the performance work statement stated that the contractor must follow certain Army regulations that govern container and yard operations. This allowed the ICTC to make the contractor improve its performance. Several of our CORs had experience operating CRSPs in Iraq, which proved invaluable as we worked to improve the infrastructure and retrograde process.

Because of all of these efforts, we were able to increase the number of containers ingated from 30 to 150 per day. This, coupled with moving cargo out of the CRSP, eliminated the need to divert cargo into the carrier holding yards. Cargo flowed freely into Bagram Airfield, saving more than $500,000 in detention fees. Of greatest significance, units received their cargo by the required delivery rate.

The greatest lesson learned from this experience is the importance of CORs in a CRSP operated jointly by military and civilian entities. The greatest lesson learned from this experience is the importance of CORs in a CRSP operated jointly by military and civilian entities. To be successful, units must select CORs with in-depth knowledge and experience in the contract they oversee. This must be a full-time position so CORs can be actively engaged with their contract and the operation on a daily basis. Anything less will lead to undesired results and have the potential to adversely affect operations.

Major Donna J. Johnson is assigned to the operations section of the U.S. Army, Alaska G-4. She was the 17th Combat Sustainment Support Battalion support operations officer when she wrote this article. She holds a B.A. degree in history from Virginia Military Institute and an M.A. degree in transportation and logistics from American University. She is a graduate of the Transportation Officer Basic Course, the Combined Logistics Captains Career Course, and intermediate level education.
Convoys Operations in Afghanistan

The 17th CSSB’s convoy elements completed more than 400 logistics convoys over some of the most dangerous routes in Afghanistan.

The mission was planned and briefed, and the convoy element arrived at the battlefield motor pool 4 hours before its scheduled start time. The Soldiers loaded their personal equipment while the leaders conducted pre-convoy checks and inspections. The mission commanders verified their loads.

The Convoy Readiness Center

Two hours before departing on a mission, the convoy element moved into the battalion’s convoy readiness center. The convoy readiness center created an environment free of distractions. It provided convoy commanders with an area in which they could issue their combat orders, conduct a manifest rollcall for all personnel and sensitive items, and complete a thorough mission rehearsal, including battle drills. It also allowed convoy commanders to complete their final preparations for their missions.

Convoys on the Road

When the Soldiers departed for a mission, they planned to be gone for 3 to 7 days, but some of our elements were out for up to 25 days because of weather and impassable roads. While out on the road, the Soldiers rested overnight at FOBs across the combined joint operations area. Some FOBs were remote with austere conditions, while other, larger FOBs had post exchanges and morale, welfare, and recreation facilities and warm buildings for sleeping.

As our logistics convoys maneuvered across the combined joint operations area, they traveled through numerous battlespaces. The 17th CSSB’s battle desk bridged the gaps between its logistics convoys and various battlespace owners by remaining in constant contact with other tactical operations centers. The battle desk managed the flow of information between the logistics convoys and the battlespace owners and coordinated for all required battlefield enablers. Route clearance packages, scout weapons teams, close air support, quick reaction forces, explosive ordnance disposal detachments, and medical evacuation assets were dispatched in support of our logistics convoys, helping mitigate the effects of enemy activity on the logistics convoys.

The battalion’s logistics convoys delivered more than 150 containers of mail to ensure servicemembers across the combined joint operations area received their Christmas packages on time.

Accomplishments

The 17th CSSB also conducted joint and coalition logistics convoys. During the battalion’s deployment, its logistics convoys safely delivered all classes of supply to more than 85,000 servicemembers on more than 35 FOBs across the combined joint operations area.

The logistics convoys successfully delivered more than 24 million gallons of petroleum, oils, and lubricants and more than 5,000 pallets of ammunition. They also delivered more than 639 vehicles and other items to stand up several new bases in support of the Presidential decision to increase the overall American troop strength in Afghanistan.

Through coordinated efforts, the 17th CSSB’s logistics convoys delivered all materiel before the 2010 Afghan presidential elections. Another important accomplishment occurred before Christmas 2010, when several dedicated mail delivery routes were established. The battalion’s logistics convoys delivered more than 150 containers of mail to ensure servicemembers across the combined joint operations area received their Christmas packages on time. This initiative ultimately saved the Government more than $1 million in contracts.

Major Undertakings

As the largest CSSB in Afghanistan with more than 1,000 Soldiers, the 17th CSSB faced constant change. Not only were there changes in the weather, enemy tactics, and maneuverability throughout the country, the logistics convoys also faced constant change across the formations with the relief in place/transfer of authority of battlespace owners, sustainment brigades, joint sustainment commands, and 10 separate multicomposition units.

Another major undertaking occurred as the battalion assumed operational control of the Kabul base cluster, a mission previously supported by an entire brigade support battalion. [The 17th CSSB sent a forward logistics element of about 190 Soldiers to Kabul, which replaced a battalion of about 482 Soldiers.] This mission supported safe passenger and equipment movements in and around the base clusters. As oppostion was present to the west in Afghanistan, the 17th CSSB quickly established the first-ever convoy academy with its Afghan National Army (ANA) partners. This academy enabled the ANA to learn how to prepare for and conduct convoys within their sectors of Afghanistan. It also allowed the ANA an opportunity to create and develop a set of standards and procedures for its own use.

The mission that the 17th CSSB performed in support of Operation Enduring Freedom would not have been as successful as it was if not for high standards and concern for all Soldiers and the mission. Its dedication to duty and high professionalism in executing tasks made this CSSB stand out and ensured overall mission success and will undoubtedly have long lasting effects. The 17th CSSB executed all tasks with 100-percent commitment and devotion to excellence. The Soldiers of the 17th CSSB remain “Always Ready!”

Major Timothy S. Moon is the S-4 for the 2nd Engineer Brigade at Joint Base Elmendorf-Richardson, Alaska. He holds a bachelor’s degree in criminal justice from Saint Leo University. He is a graduate of the Combined Logistics Captains Career Course.

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Army Sustainment

March–April 2012

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The Army Learning Model: Changing the Way Sustainers Train

The Army Financial Management School is implementing several initiatives that support the Army’s new emphasis on learner-centric, outcome-based education and training.

ALM: The Catalyst for Change

Many sustainers have heard of the Army Learning Concept 2015 (ALC 2015), which has just transitioned from the concept phase to ALM. Others who have been heavily engaged in the current conflicts may have not heard of either ALC or ALM.

Published in January 2011, TRADOC Pamphlet 525–8–2, The U.S. Army Learning Concept for 2015, provides the roadmap for how the Army will transform its training and education system. The latest formal ALM order for ALC 2015 officially moved the initiative from planning to execution by designating it as the new Army Learning Concept.

The pamphlet emphasizes “the need for a new learning model . . . to develop adaptive, thinking soldiers and leaders” who can “operate under conditions of uncertainty and complexity.” It sets forth a “continuous, adaptive learning model that instills 21st century Soldier competencies through a learner-centric 2015 learning environment, supported by an adaptive development and delivery infrastructure that enables career-long learning and sustained adaptation.” In short, ALM calls for learner-centric, outcome-based education and training.

To help Army schools understand the initial intent of the learner-centric concept, TRADOC directed that three actions begin immediately. First was a directive for the schools to “convert most classroom experiences into collaborative, problem-solving events led by facilitators (vs. instructors) who engage learners to think and understand the relevance and context of what they learn.” The second action required the schools to “tailor learning to the individual learner’s experience and competence level based on the results of a pretest/assessment.” Third, the schools were required to “dramatically reduce or eliminate instructor-led slide presentation lectures and begin using a blended learning approach that incorporates virtual and constructive simulations, game-based training, virtual reality, or other technology-delivered instruction.”

ALM affects development and delivery methods for all enlisted, warrant officer, and officer training, including initial military training, professional military education, and functional courses. ALM is coordinated through governance bodies such as the Army Learning Coordination Council.

ALM advocates expanding the role of blended learning, which combines face-to-face instruction with online learning. By placing more knowledge-based learning into self-paced online modules, time spent in the classroom can focus on more effective training. With more time spent on higher levels of learning, students will graduate with greater knowledge and skills.

Mid-Grade Learning Continuum for 2015

A related initiative by the School of Advanced Leadership and Tactics (SALT) at Fort Leavenworth, Kansas, is the officer Mid-Grade Learning Continuum for 2015 (MLC 2015). SALT identified the existence of a training gap for Army officers and recognized that the officer career and education model lacked the leadership training opportunities that exist in the noncommissioned officer developmental model. The officer model includes large gaps of time between the Basic Officer Leader Course (BOLC) for lieutenants, the Captains Career Course (CCC), and Intermediate Level Education for majors.

Using the concept established by ALM, SALT is designing a “tailored, student-centered, lifelong-learning continuum” to shift away from the current resident instruction paradigm. MLC 2015 is establishing a system of resident and self-development opportunities that close the training gap while designating a common core of decisive action skills. The combination of ALM and MLC 2015 will establish a culture of lifelong learning among officers that fosters doctrine-based training using common scenarios, simulations, gaming, and other ALM strategies.

Connecting Soldiers to Digital Apps

Another TRADOC initiative that serves as an enabler for ALM is Connecting Soldiers to Digital Apps (CSDA). The purpose of this initiative is to improve the ability of the Army to produce technology-enhanced products to support education, training, and job performance. Schools are currently developing the in-house capacity to build more interactive multimedia instruction (IMI), including mobile applications (apps) for use on smart phones and mobile devices.

Army centers of excellence have developed CSDA pilot programs to build expertise in IMI and education technology. The Center for Sustainment of Excellence at Fort Eustis, Virginia, and related schools are already producing apps and other products that improve how Soldiers are learning and performing their jobs.

Application of the Army Learning Model

Now many sustainers who have read this far may ask, “Why should I continue reading?” I noticed that the authors are from the Financial Management School, but I am not a financial management Soldier.” Although this article provides a financial management perspective, the application of ALM is universal across the Army, and not only for use in the schoolhouse but also in operational units, which is where most sustainers add value to the execution of the Army’s mission.

The following initiatives are similar to many that the sustainment community, as well as all Army branches, will implement under ALM. Sustainers will begin to notice many of these techniques being implemented in their units, enabling them to conduct more effective training programs.

FMS Army Learning Model Initiatives

The Financial Management School (FMS) at the Soldier Support Institute (SSI) is fully engaged in implementing ALM to improve the quality of Soldiers and leaders who graduate from FMS courses, including resident and distributed learning. With the full support of the SSI command and staff and SSI’s Capabilities Development and Integration Directorate and Training Development Directorate, ALM provides a financial management perspective as a part of the sustainment warfighting function.

One of ALM’s implementing steps is to review all coursework, looking for portions of courses suited for delivery by means of distributed learning (dL). The goal is to shift this training to the unit or the point of need and remove it from resident coursework, thereby reducing the time Soldiers spend away from their operational units. All sustainment schools have conducted the initial review of coursework. FMS will

“T

he Army Learning Model—why do I need to know about that? It sounds like an edu-

cational topic to me, but I’m not an instruc-

tor. So why should I care?”

The answer is that the Army Learning Model, or ALM, will affect not only how Soldiers learn in the institutional education system but also how they train in operational units. Although ALM is an Army Training and Doctrine Command (TRADOC) initiative, it will profoundly influence how all Soldiers learn and develop.

ALM is a catalyst for changing the way Army schools train by directly affecting educational outcomes. It will allow sustainment schools to produce improved sustainment officers and enlisted Soldiers who possess a greater depth of knowledge, have faster access to information and job aids, are skilled in their crafts, and are resilient and ready to adapt to an ever-changing environment.

Many of the methods the schools will use also apply to operational force units as they conduct home-station and predeployment training. As newly-trained Soldiers and instructors report to operational units, ALM will begin to enhance the way those units train. Unit training will become more effective as leaders and trainers use multisensory, learner-centric techniques to train Soldiers. Army schools and centers are making training products, including lesson plans and applications, available to the operational force to use in training its units. Improved unit training will accommodate many of the common training styles by adapting training for visual, auditory, and hands-on learners.

Since ALM will affect how Army personnel train both at the schoolhouse and in the unit, the curious sustainment officer may ask, “So what does it look like in real life?” That is a good question. It is also the perfect lead-in for the Army Learning Model—why do I need to know about that? It sounds like an educational topic to me, but I’m not an instructor. So why should I care?”
continue this process to look for even more opportu-
nities to place relevant and timely information in the
hands of financial managers and other sustainers.

The pre-assessment is another ALM tool that enables
courses to become more learner-centric. Students will
courseware available through the SSI Learning Re-
sources Center (LRC). The SSI LRC provides access to
the latest adjunct general, financial management, and
recruiting and retention training materials.

Updated live within the SSI SharePoint website, these
tools are available to common access card
Army Knowledge Online users for individual, collective,
and distance learning. FMS resident and functional course-
ware is available, as well as the Warfighter Training support pack-
ages (WSTPs) that support unit operational training. All FMS
WSTPs are available to financial management and sustainment
units through the Army Training Network.

Interactive Multimedia Instruction and Technology

The military occupational specialty 36B enlisted AIT
course at SSI has received TRADOC funding as part of the
FMS’s CSDA effort, and a pilot study is under-
way. TDD has developed an in-house capability to
enhance courseware with higher-level IMI. By lever-
aging lessons learned and their success in integrating
IMI and mobile technology into the Human Resources
Plans and Operations Course for the Adjutant General
School, TDD has a jump-start on where to look for
CSDA opportunities in the 36B course. Since this pilot is
longer and more complex than the Human Resources
Plans and Operations Course, TDD and FMS will build
even more capability within SSI to incorporate technol-
ogy-delivered instruction into remaining courseware.

Many of the resources used by financial managers
and other sustainers are currently under development
for universal access. The newly-updated Field Manual
(FM) 1–06, Financial Management Operations; other
sustainment-related FMs; and Army tactics, techniques,
and procedures (ATTPs) are being prepared in Adobe
PDF, interactive ePub, and mobile download formats.
At SSI, as the Capabilities Development and Integra-

tion Directorate revises FMs and ATTPs, TDD is using
IMI and mobile technology to provide these publica-
tions in multiple formats to ensure an even greater
improvement accessibility through the SSI Digital Library
and the LRC.

To reduce legacy-style slide presentation lectures,
TDD is incorporating more multimedia media and
interactive methods in lesson plans to provide more
realistic and robust training materials for the facilita-
tors. Some of the enhancements include the Army Financial
problem-based practical exercises that use common
scenarios, facilitated discussion, simulation, gaming,
and other IMI technology.

Field Training Exercises

In recognition of the importance of capstone, or cul-
minalizing, training events, FMS is conducting a com-
plete evaluation of its field training exercises (FTXs).
FMS conducts its FTXs at SSI’s Warrior Training Area
at Fort Jackson, which includes a mission simulation center
and a tactical training area.

FMS personnel are collaborating with simulations
personnel to inform the level of simulations and assignment
of financial managers in the FTXs. Thus, Soldiers con-
ducting financial management operations in a field
environment will have to use critical thinking and problem
solving to adapt to ever-changing situations. By adding complexity and rigor, the FMS exercises
will continue to become more realistic, thus producing
a level of experience for financial managers that rivals
an actual deployment.

Systems Training Requirements Platform

Financial management Soldiers in garrison normally
do not have access to the full complement of Govern-
ment organizations that participate in deployed opera-
tions. These organizations include the Defense Finance and
Accounting Service, U.S. Army Central, the Army
Financial Management Command, national providers,
FMS, and deployed operational units. Neither do finan-
cial management Soldiers train directly on the systems
that are used in deployed operational environments.

The financial management community needs the
capability to “train as it fights.” The Financial Man-
agement Systems Training Requirements Platform
overcomes this critical training gap. This platform is
an integrated training database comprising the full suite of
financial management applications and U.S. Treasury
peripherals. We recently completed development of the
database after more than a year of complex coordina-
tion led by SSI’s Capabilities Development and Inte-
gration Directorate.

The training database allows Soldiers to train on the
many systems and applications using self-contained
training data, either in preparation for deployment or to
maintain critical financial management skills to better
support sustainment in the Army community. It also
allows the FMS, in coordination with TDD, to support
ALM directly by designing realistic virtual training
sessions for use within the school and by operational
units.

Virtual Training Environments

The ALM learning and training environment will
employ virtual simulation, stimulation, and gaming
tools in both institutional and operational applications.
FMS, in direct coordination with the Army Financial
Management Command, has begun an effort to review
training materials and develop opportunities to leverage
this virtual training environment to enhance realism
and increase complexity in capstone and predeploy-
manship training.

From this collaborative effort, financial management
leaders expect to develop a training environment that
not only can be applied within the traditional “brick
and mortar” schoolhouse environment but also can be
exported to operational sustainment units for use in
both individual and collective training applications.

ALM is changing the way schools educate and train
Soldiers. While the specifics of implementing ALM
throughout the Army may vary, the objective remains
the same: to create “a continuous adaptive learning
model that instills 21st century Soldier competencies
and sustainment training.”

TRADEC Pamphlet 525–8 has now codified the
discipline of learning. Not only is ALM changing the
way we train, but it has already affected the way sustainment Soldiers
train in their units. Initiatives at the Financial Manage-
ment School highlight effective implementation of
the key tenets of the Army’s learner-centric, outcome-
based education model.

Lieutenant Colonel Richard J. Stafford is the
Director of Training at the Army Financial Manage-
ment School at Fort Jackson, South Carolina. He
recently served as Deputy Division Chief of Current
Operations at the Army Budget Office and as the
Military Assistant to the Assistant Secretary of the
Army (Financial Management and Comptroller). He
holds a B.B.A. degree in Accounting from Campbell
University and an M.B.A. degree through the Army
Comptroller Program at Syracuse University. He
is a Graduate of the Army Command and General
Staff College and is a Certified Defense Financial
Manager.

Major William Mark Thornhill is the Future
Planners Office at the Army Financial Manage-
ment School at Fort Jackson, South Carolina. He
recently served as the Deputy Director of Training Develop-
ment at the Soldier Support Institute at Fort Jack-
son and as a Budget Officer and Financial Management
Analyst at U.S. Army Central at Fort McPherson.
He holds a B.S. degree from Louisiana College and an M.B.A. degree through the Army
Comptroller Program at Syracuse Universi-
ty. He is also a Graduate of the Army Command and
General Staff College and is a Certified Defense Financial
Manager.
The “Second Half” of the Life Cycle

WITH THE EXPENSE IN TIME, PERSONNEL, AND EQUIPMENT REQUIRED TO REFILL EXPENDED FIRE SUPPRESSION SYSTEM BOTTLES, THE AUTHOR SUGGESTS AN ALTERNATIVE THAT SHOULD SAVE MONEY AND TIME IN REPLACING FIRE SUPPRESSION AGENT.


WHILE WORKING WITH THE TANK AUTOMOTIVE RESEARCH, DEVELOPMENT AND ENGINEERING CENTER, PROGRAM EXECUTIVE OFFICE, AND OTHER DEPARTMENT OF DEFENSE AGENCIES, I WAS INSPIRED TO LEARN OF THE VAST NUMBERS OF REPLACEMENT FIRE EXTINGUISHERS BEING USED BY TENS OF THOUSANDS OF MINOR-RESISTANT, AMBUSH-PROTECTED VEHICLES (MRAPs), HIGH-MOBILITY MULTIPLE WHEELED VEHICLES (HMMWVs), ARMORED SECURITY VEHICLES, AND LIGHT AND HEAVY COMBAT VEHICLES. REPLACING DISCHARGED FIRE SUPPRESSION SYSTEMS (FSS) BOTTLES, CYLINDERS, AND DISCHARGE VALVES HAS BEEN EXPENSIVE, COSTING MILLIONS OF DOLLARS JUST TO PURCHASE CYLINDER ASSEMBLIES. FOR EXAMPLE, I NOTICED NEW PROCUREMENT ORDERS FROM VARIOUS INTEGRATED LOGISTICS SUPPORT CENTERS FOR THOUSANDS OF FSSs, CONSISTING OF THE CYLINDER, DISCHARGE VALVES, AND EXTINGUISHER AGENTS (WHICH MADE UP THE BOTTLE AND CYLINDER ASSEMBLIES), AT A COST OF $1,500 PER UNIT, WITH SOME PRICED AT MORE THAN $3,000 EACH.

PROPER MANAGEMENT OF THE SECOND HALF OF THE LIFE CYCLE, WHICH INCLUDES MAINTENANCE, DISTRIBUTION, SUSTAINMENT, AND DISPOSAL, IS ESSENTIAL TO FSS EQUIPMENT AND SUPPORT ITEMS.

DIVERSE FSS ASSEMBLIES

CURRENTLY, MORE THAN 20 MAJOR GROUPS OF VEHICLE PLATFORMS USE AFESs. THESE INCLUDE HEAVY COMBAT, LIGHT COMBAT, MRAP, LIGHT TACTICAL, AND HEAVY TACTICAL VEHICLES. ALL HAVE FSSs WITH SINGLE OR MULTIPLE CYLINDER ASSEMBLIES THAT USE FROM ONE TO EIGHT DISCHARGE CYLINDER ASSEMBLIES.


IT IS COSTLY TO TRAIN PERSONNEL TO TROUBLESHOOT AND REPAIR THE MANY DIFFERENT OEM SYSTEMS. REPLACING DISCHARGED BOTTLES AND REFILLING EMPTY BOTTLES FOR REUSE OR DISPOSING OF EMPTY BOTTLES AND PURCHASING NEW ONES IS VERY EXPENSIVE. A VEHICLE WITHOUT AN OPERATING AFES MUST BE DEADLINED, POSSIBLY FORCING THE CREW TO USE A VEHICLE WITH LESS ARMOR OR LESS FSS PROTECTION TO CONTINUE THEIR MISSION. A BETTER SOLUTION MUST BE FOUND.

FSS AGENT REPLACEMENT ISSUES

THREE YEARS AGO, WITH SO MANY NEW MRAPs AND UP-ARMORED HMMWVs BEING BUILT AND QUICKLY Pressed INTO SERVICE, THE ARMY WAS REGULARLY REPLACING AFES BOTTLES BECAUSE OF ERRONEOUS DISCHARGES, OPERATOR ERRORS, AND ENGINEERING DESIGN FLAWS. PLATFORM ITEM MANAGERS WERE PURCHASING FROM NEW OEMs AT AN UNBELIEVABLE RATE.

THE AVERAGE WEIGHT OF A FILLED BOTTLE ASSEMBLY WAS APPROXIMATELY 40 POUNDS. THE SHIPMENT COSTS OF $3,000 TO $4,000 BOTTLES FROM THE CONTINENTAL UNITED STATES TO THE U.S. CENTRAL COMMAND WAS MILLIONS OF DOLLARS, AND THE LAST TIME FOR SHIPMENT WAS CONSIDERABLE.

THE ARMY SOON HAD PRIVATE CONTRACTORS REFILLING SOME BOTTLE ASSEMBLIES IN THEATER, WHICH ALSO COST MILLIONS OF DOLLARS. THE SERVICEABLE BOTTLE ASSEMBLIES THAT WERE NOT DISCHARGED WERE TOSSED INTO THE SCRAP HEAP OR STORED AT THE THOUSANDS OF RETROGRADE YARDS IN SOUTHWEST ASIA. CERTAIN BOTTLE ASSEMBLIES NEEDED REBUILT DISCHARGE VALVES AT A COST OF APPROXIMATELY $400 EACH, PLUS THE COST OF SHIPMENT TO THE OEM IN THE CONTINENTAL UNITED STATES. THE TURNOVER RATE WAS MONTHLY. GRADUALLY, A BETTER AND FASTER REFILLING SERVICE WAS DEVELOPED, BUT NEW BOTTLE ASSEMBLY PROCUREMENT CONTINUED.

FSS BOTTLE ASSEMBLY LOGISTICS FOOTPRINT

THE RECIPE PROCEDURES FOR A DISCHARGED BOTTLE ASSEMBLY ARE VERY SPECIFIC. REMOVE THE DISCHARGED BOTTLE ASSEMBLY FROM THE VEHICLE. INSTALL A NEW REPLACE-MENT BOTTLE ASSEMBLY. TRANSPORT THE DISCHARGED BOTTLE ASSEMBLY BACK TO A REFILL STATION OR REPAIR SHED FOR RE-USE OR DISPOSAL. OBTAIN ANOTHER BOTTLE ASSEMBLY. BEYOND THE COST OF THE BOTTLES THEMSELVES IS THE COST OF HANDLING THEM. IF THE DISCHARGED BOTTLE ASSEMBLY GOES TO A REFILL STATION, IT MUST BE SHIPPED THERE BY PERSONNEL. AT THE REFILL STATION, THE BOTTLE ASSEMBLY IS SERVICED BY AT LEAST TWO TRAINED INDIVIDUALS IN A BUILDING WITH UTILITY SERVICES, RECLAMING AND REPAIRING AGENT EQUIPMENT AND TEST EQUIPMENT. A STORAGE AREA IS NEEDED FOR DISCHARGED AND REFILLED BOTTLE ASSEMBLIES.

IF THE BOTTLE ASSEMBLY IS TRANSPORTED BACK TO THE ARMY SUPPLY UNIT FOR EXCHANGE, SUPPLY PERSONNEL ARE NEEDED ALONG WITH A BUILDING EQUIPPED WITH UTILITY SERVICES, STORAGE SPACE, AND EQUIPMENT FOR DISPOSAL OR RECLAMATION AND PACKAGING.

SUSTAINMENT AND DISPOSAL

THE FSS SUSTAINMENT PROCESS IS LONG, COMPLICATED, EXPENSIVE, AND CONVOLUTED, WITH MUCH UNNECESSARY HANDLING BY MANY INDIVIDUALS. AFTER A DESIGNATED NUMBER OF YEARS IN SERVICE, BOTTLES OR CYLINDERS MUST BE HYDROSTATICALLY TESTED BY A DEPARTMENT OF TRANSPORTATION-CERTIFIED TESTING FACILITY. THIS TESTING ENSURES THAT THE BOTTLE IS STRUCTURALLY SAFE TO USE WITH HIGH PRESSURE AGENTS.

THE DISPOSAL OF FSS BOTTLE ASSEMBLIES CURRENTLY REQUIRES TOTAL CONTROL OF THE EMPTY FORGED OR DEEP-PRESSED BOTTLES OR CYLINDERS. MOST CURRENT BOTTLES AND CYLINDERS ARE MADE FROM 3/8-INCH-THICK STEEL WEIGHING APPROXIMATELY 28 POUNDS AND CAN WITHSTAND UP TO 1,300 POUNDS OF PRESSURE PER SQUARE INCH. TO DEMILITARIZE A BOTTLE, IT MUST BE CUT INTO PIECES WITH A POWER SAW OR WITH AN OXYGEN ACETYLENE TORCH TO RENDER IT SAFE. IT CANNOT BE CRUSHED BECAUSE OF ITS WALL STRENGTH, BUT IT MAY BE BURIED DEEP ENOUGH TO MAKE IT UNRECOVERABLE, OR IT CAN BE EXPLODED.

SECOND HALF OF THE LIFE CYCLE ALTERNATIVES


THE AUTHOR ACHIEVED SHEET FEEDBACK ON THIS ARTICLE FROM THE FOLLOWING INDIVIDUALS:

LOUIS GORENC IS TEAM LEADER FOR FIRE SUPPRESSION SYSTEMS, GROUND VEHICLES, AND AUTOMOTIVE BATTERIES AT THE TACOM LIFE CYCLE MANAGEMENT COMMAND INTEGRATED LOGISTICS SUPPORT CENTER. HE HOLDS A B.A. DEGREE IN CRIMINAL JUSTICE ADMINISTRATION FROM CONCORDIA COLLEGE IN MICHIGAN. HE IS LEVEL III CERTIFIED IN LOGISTICS MANAGEMENT AND LEVEL II CERTIFIED IN PROGRAM MANAGEMENT.
Commanding an Army Field Support Battalion

The 2d Battalion, 401st Army Field Support Brigade, supported the increase of forces in Afghanistan and the drawdown of forces in Iraq through Army pre-positioned stock management, direct theater support, and retrograde.

While assigned as the professor of military science at Gannon University, I received the call to command the 2d Battalion, 401st Army Field Support Brigade (AFSB), also known as the 2–401 Army Field Support Battalion (AFSBn), at Camp Arifjan, Kuwait. I was informed that this unit was pivotal to the Army’s success in supporting two theaters of operations. The unit synchronizes and integrates the activities and capabilities of program managers, life cycle management commands, and sustainment support organizations and places the entire Materiel Enterprise at the service of Soldiers. In short, it forms the wholesale logistics link to retail logistics systems for key classes of supply.

In my experience, most Army units are standardized, but few AFSBns are uniform in appearance and mission. The 2–401 AFSBn is no exception, since numerous unique and critical missions clearly set it apart. The 2–401 AFSBn supports the Army at the tactical, operational, and strategic levels. This is evident in the battalion’s role in two Presidential directives at the operational and tactical levels that directly supported the Nation’s wartime missions in Afghanistan and Iraq. The battalion executes as many as 35 supporting missions, but Army prepositioned stocks 5 (APS–5) management is the battalion’s enduring mission and direct theater support (DTS) and retrograde form the key missions in support of Operation Iraqi Freedom (OIF), Operation New Dawn, and OEF.

APS–5. The battalion is responsible for the care, maintenance, and ready-for-issue status of APS–5, a key strategic asset in a strategically significant theater postured to engage in many potential missions. The battalion’s APS–5 mission is inextricably linked to the defense of Kuwait and contingencies that may arise in the joint operations area. APS–5 currently consists of the enduring heavy brigade combat team (HBCT) equipment set, an infantry brigade combat team (IBCT) set (an operational set), and motorized options for both. The APS–5 mission also includes a mine-resistant ambush-protected vehicle (MRAP) modernization program and the Watercraft Equipment Site–Kuwait at the Kuwait Naval Base, which has a full complement of Army boats and a causeway system. The materiel is forward-maintained and postured for hasty issue to a rapidly deploying unit in support of threats to Kuwait or other theater contingencies.

DTS. DTS is an ongoing mission that includes the sourcing, maintaining, and shipping of rolling and nonrolling stock. The mission largely supports tactical needs, but it also supports many operational needs. The
Phases III and IV saw a large surge of equipment. The vast majority of this equipment was retrograded directly back to a source of repair at the life cycle management commands’ depots, such as Anniston Army Depot, Alabama; Sierra Army Depot, California; and Red River Army Depot, Texas, in support of the ARFORGEN effort. All of the equipment was linked to that effort through the battalion’s inventory, tracking, and shipping systems.

Contract Support
To accomplish these missions, the battalion employs more than 4,500 contract personnel. Oversight of this contract activity is provided by 47 Government personnel (36 by table of distribution and allowances), including Soldiers and DA civilians, augmented by a small contract staff. This performance-based contract is valued at more than $240 million, with a property book totaling more than $5 billion of equipment maintained in the wholesale system.

As one can imagine, commanding a mission of this magnitude with a 98-percent contracted workforce and a 2-percent Government oversight workforce presented many challenges, but it also provided the opportunity to find inventive ways to achieve mission success.

One challenge the battalion experienced was a total change in the contract, which was announced in early 2009 but not finalized until February 2010, resulting in a contract transition during a peak in the operating tempo of all three of the battalion’s missions. The incumbent contractor won the bid, but the contract was radically altered from the previous one.

The contract workforce presented the most serious problems because of a significant workforce reduction and change in composition. Although the missions had not changed, the workforce was reduced by two-thirds from the previous contract and the workforce composition was changed to a largely third-country-national workforce. Language barriers and cultural differences added to the challenges of the substantial overall personnel reduction and resulted in a significant struggle to maintain overall satisfaction of demands and missions.

As the mission demands and the operating tempo increased, the contract transitioned from having more than 3,200 contractors in April 2010 to having only 1,200 at the end of May. The reduction was compounded by a large workforce strike caused by pay and work-hour disputes and was followed by a severe shortage of transport personnel to move retrograde material and equipment. Soldiers were brought in to overcome the shortfall and maintain the mission timelines.

The Government’s oversight mission was critical and ensured that solutions to mission concerns were identified. On numerous occasions, the contractor teamed up with its Government counterparts to develop and implement mutual solutions.

During this same period, we had trouble completing the APS maintenance mission because of a lack of contracted mechanics and a lack of Soldiers to fill in for those mechanics. The result was a significant effort of accountability to correct the shortfall and get the mission back on track.

Administrative Challenges
Competing demands were also a significant challenge for the battalion. The battalion struggled to meet information requirements, short suspenses, personnel turnover, and competing requirements from multiple chains of command.

The battalion is administratively controlled and has its formal chain of command under the 402d AFSB and the Army Sustainment Command. The battalion was initially under the 401st AFSB but was attached to the 402d in November 2009. The 402d AFSB has one headquarters, but during the deployment it was split between two locations: Iraq and Kuwait. The 2–401 AFSB was also operationally controlled by U.S. Army Central and tactically controlled by the 1st Sustainment Command (Theater).

Navigating through the multiple contract associations and the resulting demands required tremendous efforts to balance mission requirements, ensure clear information flow, understand requirements, manage expectations, educate others about the battalion’s processes, and maintain overall satisfaction of demands and missions.

Lessons Learned
Contractual issues can be mitigated in the early stages by receiving timely input from the people most directly affected. Applying on-scene maintenance, supply, and transportation expertise to the development and review of proposals will pay dividends. Strong Government oversight must be resourced during contract transitions and should be synchronized as closely as possible with the operating tempo.

Government personnel and contractors ultimately have to execute critical, time-sensitive, and Soldier-focused missions. Mission execution is best accomplished with a team effort between the Government and the contract team; an “us versus them” attitude significantly impairs mission accomplishment.

Multiple chains of command and competing demands require an adept balancing act, solid support from top military officers, and quality staffing from the immediate chain of command. A clear understanding of priorities, processes, and intent must be coupled with the confi-
Endurance to execute and command within the commander’s intent.

Highlights of the Command

During OEF Build I and II, the battalion repaired, processed, and provided more than 63,251 pieces of rolling and nonrolling stock in support of DTS and, ultimately, the Soldier. Of significant note was the sourcing, maintenance, and shipment of more than 6,000 vehicles—more than 50 percent of the class VII (major end items) rolling stock required—for OEF Build I and II, which increased troop strength by 30,000 and 20,000 Soldiers respectively. This was done in a very compressed 6-month timeframe and included building the equipment into combat systems with key enablers and the latest armor upgrades.

During the responsible drawdown and conclusion of OIF, 11 percent of the DTS equipment came from the retrograde process, including the sourcing of requirements in Kuwait, such as APS and local unit requirements. The remaining 152,980 pieces of equipment were processed from Phases II and III to the continental United States in support of ARFORGEN.

At the end of Phase III, through Phase IV, and into Phase V, retrograde rolling stock flowed at an average of 2,200 pieces a month as the equipment surged out of Iraq to meet the required 50,000-Soldier reduction in force by September 2010. Nonrolling stock totaled more than 126,827 pieces retrograded, and rolling stock totaled more than 44,702 pieces. More than 18,549 pieces of retrograded equipment were used in support of DTS requirements.

The HBCTs began a complete reconstitution starting in October 2008. By March 2010, nearly 100 percent of the Soldier’s equipment for OEF Build I and II, which increased troop strength by 30,000 and 20,000 Soldiers respectively. This was done in a very compressed 6-month timeframe and included building the equipment into combat systems with key enablers and the latest armor upgrades.

Although I was rarely able to interact with Soldiers directly, many stories of equipment that saved lives and the Soldiers’ expressions of gratitude for the equipment’s key role in their safe return home provided the greatest rewards. The 2–401 AFSBn’s impact on our Army’s Soldiers and historic missions made serving at the Logistical Support Command an experience the Army has offered me thus far and one that will never forget.
extremely arduous conditions. The rather poor infra-
structure (according to western standards), extreme
and vastly fluctuating temperatures, and the fine dust
that forces its way through the smallest gaps in equip-
ment subject deployed materiel to maximum stress and
accelerate degradation. For some vehicle types, the
maintenance effort in theater is twice as high as it is in
Germany. Repairs often have to be carried out under
adverse working conditions since fully equipped main-
tenance halls with workshop pits and overhead cranes
are seldom available.

Because of combat activities, which have signifi-
cantly increased since 2008, maintenance units are
faced with new damage patterns. An extended presence
throughout the area, such as in a forward operating
base (FOB), creates new challenges and requirements.
For example, the need will increase for battle-damage
repair to restore at least limited operational capability,
as will the level of workmanship required from military
maintenance personnel.

Another indicator of the complex maintenance chal-
lenge in theater is the approximately 1,300 armored
vehicles of roughly 125 types and modifications that
are currently deployed in Afghanistan. Just imagine
the different qualifications of maintenance personnel
and diverse toolkits required to maintain the various
vehicles.

Equipment Standardization
To alleviate this situation, the call to standardize
equipment is understandable from a technical and
logistics point of view. However, the reality of opera-
tions has given rise to a vast number of specialized and
individualized equipment designed to best meet the
different operational requirements, and providing maxi-
mum protection for deployed Soldiers is paramount.

Fully operationally ready and logistically support-
able defense materiel has proved useful in peacetime
Bundeswehr operations. This is even more vital for
deployed operations. However, the operational reality
has shown that, especially for longer missions, soldiers
often need new, or at least modified, equipment that is
more suitable for the combat situation. This results in
immediate fielding of equipment without waiting for
logistics supportability to be established in a lengthy,
mostly cumbersome process. Fielding operationally
ready and logistically supportable materiel would not
only require the establishment and availability of an
entire set of documentation, stocks of spares parts, the
associated workflow, and all necessary special tools,
but it would also call for extensive training of military
maintenance personnel.

Quickly Fielded Items
Quickly fielding recently developed vehicles to the
troops is part of the operational reality in Afghanistan.
Logistics supportability by military personnel thus
always lags behind, which makes support by civilian
industry, however temporary, indispensable. Enhancing
and preserving military technical knowledge is com-
plicated by the very dynamic technological innovation
process in the civilian sector, which affects military
goods but does not necessarily contribute to durability
and simplicity in operations. This overspecialization is
also the reason for the increasing number of different
equipment configurations within the forces and makes
it even more difficult to establish full operational readi-
ness and logistics support.

Another problem is that delivered preproduction
models or initial batches often require subsequent
upgrades in several steps until full operational readi-
ness has been established. With the proven instrument
of urgent operational requirement, materiel can be
purchased off the shelf within 12 months. However,
complete operational readiness often must be estab-
lished subsequently. This kind of materiel faces the
same technology and logistics challenges as preproduc-
tion models or initial-batch items.

From a budgetary point of view, it would make
little sense to establish full logistics supportability for
preproduction models or initial-batch items. The same
applies to the rapidly changing number of different
configurations, such as the increasing integration of
electronic components in vehicles. Given these condi-
tions, resorting to civilian industry, at least temporarily,
seems mandatory.

Furthermore, the increasing restriction to military
core capabilities, as is the case with routine duty in the
German homeland, increases dependence on industrial
support and eventually diminishes technical expertise
within the forces. This widens the gap in military capa-
bilities desperately needed for operations abroad.

Civilian Maintenance Services
In recent years, the Afghanistan mission has seen a
continuous increase in the number of contracts awarded
to civilian maintenance services. The number of ar-
moderned vehicles in the German International Security
Assistance Force contingent has more than doubled in
the last 4 years, and the amount of contracted services
has almost quadrupled in the same period. This under-
imines all efforts to save maintenance funds. Alternative
measures can hardly be taken in the short term since a
shift toward military capacities is impossible at present.
This is mainly due to mandated personnel ceilings and
the lack of logistics supportability.

The present division of competencies between the
military user and the civilian supplier and the distribu-
tion of materiel management responsibilities among
several users often cause additional delays in establish-
ing operational readiness and logistics support. The
capability approach, as the underlying concept of cus-

Cooperation Model:
Integrated Teams
in Theatre

The chart illustrates how the civilian/military theater of operations logistics base can provide maintenance
support to a forward operating base.
Civilian contractors work on armored vehicles in Afghanistan.

This leaves only military personnel to provide maintenance on a FOB, although they might not be fully qualified to work on newly introduced equipment. On the other hand, operations that are conducted outside of a FOB involve increased maintenance efforts since the materiel is often stressed to its limits. Under such conditions, it is imperative to establish broadband communications between the civilian experts available at the theater of operations logistics base and the military maintenance personnel located at a FOB.

Most military maintenance personnel have general technical knowledge of certain equipment but often have not been trained on the particulars of special versions of the equipment. It should be possible for the military mechanics to consult civilian experts online in order to conduct a damage assessment or damage control under field conditions or, in a best-case scenario, conduct damage repair. Depending on the particular operational scenario, even damage assessment and damage control might be sufficient to return a vehicle to defined and limited operations.

Military and Civilian Maintenance Teams

More flexible options for employing civilian mechanics in a theater of operations logistics base seem conducive to further developing effective cooperation between civilian and military maintenance personnel in theater. Adjusting contracting practices (for example, discontinuing special service contracts tied to special vehicle types or tasks in favor of open-ended repair contracts for on-site repair abroad) in order to consolodate the tasking and management of all maintenance personnel present under a single military lead would be a possibility. This would allow level-2 maintenance and repair to be provided by integrated civilian and military teams. Technical know-how would be exchanged automatically on site between civilian and military personnel. Even before deployment, this could partly compensate for deficits on the military side caused by a lack of central training.

For an upcoming mobile deployment from a FOB, the military maintenance personnel could be detached from an integrated team and moved to the FOB. If necessary, the military team members at the FOB could obtain help from the civilian team members using video and electronic diagnostics.

In contrast to the current situation, if increasing threat levels required a withdrawal of civilian employees, maintaining military fallback positions for dealing with new vehicle types could be established through integrated teams. In those cases, at least limited operability of new vehicles could be ensured, even under adverse conditions, through modern communications between team members in the home country and in theater.

The German Army School of Land Systems Engineering and Army School of Engineering is pursuing the ongoing development of information and communication relations between the theater of operations and the home country. It will be crucial to start with an 80-percent solution and allow iterative development to be based on real-life experience gained in the field. Striving for absolute perfection in the conceptual stage, as too often is the case, is detrimental to improving the capabilities of the units in the field.

Close cooperation in theater can offer industry new opportunities to gain new insights and knowledge, which may subsequently be incorporated in the further development of existing or entirely new products and thus contribute to commercial success.

It will be important to systematically place the focus on mission-related efficiency when planning future capabilities and structures. A credible limitation to logistics core capabilities must be thoroughly considered and, from the very beginning of conceptual planning, include military fallback positions for extreme conditions. One key to success when contracting civilian services is intelligent and cooperative conditions that also clearly take into account military requirements.

Colonel Gerald Funk, German Air Force, is the Assistant Chief of Staff (J-4), Bundeswehr Operations Command, in Potsdam, Germany. He holds a master's degree in electrical engineering from the University of the Bundeswehr in Munich.
A–TCOP: Clearing the Fog

BY BRANDON J. DAUPHINAINS

The ARCENT–Theater Common Operating Picture integrates logistics data from multiple sources and provides metric insights, leading to better, faster, and more relevant decisions.

Throughout history, Soldiers have had to overcome harsh weather conditions while fighting for victory on the battlefield. To succeed, armies have had to adapt and overcome the obstacles in their way, including heavy rain, thick fog, sandstorms, and hail. Yet, the physical battlefield is not the only terrain with obstacles to overcome.

In his article entitled “Clausewitz’s Theories of Fog and Friction of War: Are they Obsolete in the Realities of the Computer Age?” in the November–December 2010 issue of Armor, Major Aaron B. Dixon stated, “Cyberspace contains its own virtual weather system.” By extension, the “weather system” of the electronic battlefield has its own harsh conditions.

Layers of the Fog

The ARCENT–Theater Common Operating Picture (A–TCOP) brings the power of business intelligence to bear on the many data sources being used in order to show a clearer picture of what the data represent. Logistics data sources typically include data from heterogeneous data resources, such as the Logistics Information Warehouse, Army War Reserve Deployment System, Worldwide Port System, and Intra-Theater Aircraft Request System.

Authoritative agents of business processes that do not currently have an automated system may generate their own “homegrown,” nonstandard repository of data using custom business automation tools like Microsoft Excel and Access and include that database in the A–TCOP data warehouse.

ARCENT first built a data warehouse by aggregating the Task Force Organization and Property Book Unit Supply Enhanced data sources with manually entered information. The data sources are woven together by establishing relationships that would logically link them. This process uses business intelligence to apply appropriate business rules to construct a congruent, understandable dataset. As a result of the data integration, high-level commands can now drill-down capability with the consolidated data made available within A–TCOP. This allows them not only to have a high-level view but also to dig down to the root of the problem should an issue be identified.

A–TCOP improves logistics operations by providing metrics that lead to better, faster, and more relevant decisions and provide capabilities for advanced analysis, self-service reporting, end-user analysis, and performance measurement at the strategic, tactical, and operational levels.

By providing visibility of resources and equipment in theater, A–TCOP has enabled the decision-makers at ARCENT and throughout the Afghanistan Combined Joint Operations Area to get Soldiers what they need. A–TCOP has cleared the fog created by stovepiped systems and a lack of visibility across theater by giving clarity to requirements, sourcing options, and equipment losses. These changes enabled ARCENT to more effectively execute the drawdown in Iraq as part of Operation New Dawn.

With these accomplishments, A–TCOP gives the Army the ability to see through the fog and maintain visibility of logistics in the middle of the fight. That ability can often mean the difference between success and failure.
The New Spice Route for Africa

BY LIEUTENANT COLONEL DAVID L. CORRICK, USAFR

C ommercial trucking has been used sporadically over the years by the Department of Defense (DOD) in East Africa without a comprehensive plan. However, because of short timelines and a lack of standardized processes for surface movement, airlift remains the predominant means of delivering supplies to units dispersed in the Horn of Africa (HOA).

The New Spice Route team, which includes the Combined Joint Task Force–Horn of Africa (CJTF–HOA), U.S. Africa Command (AFRICOM), U.S. Army Africa (USARAF), U.S. Naval Forces Africa, and the Military Surface Deployment and Distribution Command (SDDC), seeks to change that. Led by the CJTF–HOA J-4, the New Spice Route team matches all DOD shippers with the right commercially contracted capability through the expertise of USARAF.

New Spice Route Beginnings

The New Spice Route, established by CJTF–HOA, is designed to minimize AFRICOM’s reliance on military airlift by developing reliable surface movement options across East Africa. Trucks carrying no-longer-needed equipment started moving in February 2011 from Garsisa and Manda Bay, Kenya, to the Port of Mombasa and then on to Djibouti. A shorter run with fresh fruits and vegetables departed Kampala, Uganda, for a training camp on the way to Entebbe.

In February 2012, trucks with construction supplies and provisions began rolling from Djibouti to Dire Dawa, Ethiopia. Still in its nascent stages, the line-haul program has been adding to local economies, while CJTF–HOA promotes stability through its many programs.

Expanding the New Spice Route

At CJTF–HOA’s East Africa Coalition Conference, held in January 2011 in Djibouti, the Army’s lead planner, Chris Zahner, said, “Marco Polo wasn’t just an explorer; he was also a logistician developing logistics nodes along the Silk Road. Now let’s do something similar where the Queen of Sheba traveled.”

Gloria Evans, CJTF–HOA’s J-4 Fusion Cell chief, turned the concept into a joint plan and process. “As a supported command [that is] building partner nation capacity, we rely on external sources for movement,” Evans said. “Working together with our DOD partners to develop better contracts covering East Africa, with seamless connections to sealift, is the way to take pressure off of the C-130 fleet, save Defense dollars, and support local economies.” She noted that even U.S.-owned companies use local subcontractors to ship throughout the region.

By creating a network that will eventually span all of Africa, the New Spice Route complements and enhances the services currently provided by the SDDC through theater-managed indefinite-delivery, indefinite-quantity contracts. USARAF synchronizes the overall effort. This system has been called the Africa Surface Distribution Network, and CJTF–HOA’s New Spice Route is its first application.

New Spice Route Challenges and Benefits

The Africa Surface Distribution Network fits squarely within AFRICOM’s Adaptive Logistics Network. Similar to the U.S. Central Command– and Department of State-coordinated proposal for the Middle East known as the New Silk Road, the New Spice Route emphasizes both land and sea transportation solutions. As challenging as the New Silk Road Route from Asia to Europe can be, CJTF–HOA and its partners operate in an area truly forsaken by 20th century advances in road and rail.

“We didn’t even consider trying to line-haul direct from Kenya to Djibouti,” said Evans. “Our move from Garsisa took us to the port of Mombasa, then on to Djibouti by sea.”

According to Air Force Master Sergeant Allen Rickles, CJTF–HOA Joint Logistics Operations Center noncommissioned officer-in-charge, the movement of cargo from Manda Bay to Mombasa by truck, then to Djibouti by sea (instead of by air), saved the Government $380,000 in February 2011. The sealift portion from Mombasa to Djibouti mirrors one of the legs of the original Spice Route.

Hans Garcia, the sustainment branch chief at AFRICOM’s Deployment and Distribution Operations Center, says this combination of land and sea movement of supplies supports the theater distribution plan. Navy Lieutenant John Belisle, Camp Lemonnier’s first installation transportation officer, adds that the New Spice Route also builds equity and economies of scale, especially when all of the DOD branches are using the same route.

“I’m glad I am part of something innovative,” Lieutenant Belisle said. “The Spice Route saves the Government money, and we’re looking forward to the advanced tracking technologies our civilian partners have to offer—a kind of high-tech version of an old idea.”

Navy Lieutenant Marcus Thomas, a regional logistics planner with CJTF–HOA J-4, says that the New Spice Route offers increased flexibility. “Sustaining our forward operating locations has been historically challenging, particularly in Ethiopia, where our Navy Seabees had no other option but to use their own equipment to receive and transport supplies and materials,” said Lieutenant Thomas. “By using local commercial truckers who know how to navigate the roads and customs procedures, our guys can focus less on moving their materials around and more on their tasks of building schools and drilling wells.”

CJTF–HOA’s New Spice Route is truly transformational for DOD, even if it simply builds on existing commercial trade routes. In a time of shrinking budgets, concern about carbon footprints, and ongoing military commitments, every kilometer trucked is a step ahead toward networking East Africa, where the Queen of Sheba traveled with her riches more than 2,000 years ago, and it represents another pillar of AFRICOM’s adaptive logistics network concept contributing to stability and progress.

LIEUTENANT COLONEL DAVID L. CORRICK, USAFR, recently completed a 4-month tour establishing and directing the Combined Joint Task Force–Horn of Africa’s Joint Logistics Operations Center. He is now a Department of the Army traffic management specialist serving as the air branch chief in the Mobility Division of the U.S. Army Africa G-4 located in Vicenza, Italy, and as a/*!GFRICOM’s individual mobilization augmentation to the U.S. Africa Command J-4, in Stuttgart, Germany. He is a graduate of San Diego State University and the Air Command and Staff College.
logisticians must prepare to sustain the next fight without repeating mistakes from previous combat operations. Since the beginning of Operation Iraqi Freedom, the Army has restructured the force while keeping the same inefficient logistics techniques that caused severe problems. The force materials-handling equipment (MHE) and distribution procedures. The success of future combat operations will depend on more efficient logistics capabilities that include reducing reliance on MHE forward on the battlefield, eliminating large commercial container detention fees, and ensuring the uninterrupted flow of supplies to their final destinations.

MHE Forward on the Battlefield

On 19 March 2003, coalition forces began offensive operations in Iraq. By 15 April, 27 days and over 600 kilometers later, those forces were in control of Baghdad. Sustaining a rapidly moving combat force during Operation Iraqi Freedom pushed the demand on logistics capabilities to their limits.

As units of the 3d Infantry Division moved north into Iraq during the initial advance toward Baghdad, heavy equipment transporters and lowboys that were carrying forklifts had to offload those forklifts in order to recover and remove broken combat vehicles. As a result, Atlas forklifts had to road march across the Iraqi desert. Forklift operational readiness rates dropped below 50 percent because of excessive use, harsh climate conditions, and a lack of available repair parts that led to continued breakdowns. The division still had to rely on the RTCHs’ parent cargo transfer company for maintenance because the division did not have mechanics familiar with the Kalmar RT-240 RTCH. An engine boat company with M1120 heavy expanded-mobility tactical truck load-handling systems was later task-organized to the division to support distribution operations. However, these trucks did not possess container-handling unit systems or M1077 flatracks. Therefore, flatracks had to be borrowed from other units in order to move containers forward to the division logistics release point for distribution to support operations. Most of the available flatracks were the container roll-in-roll-out platform style that cannot haul containers.

Commercial Container Recovery

A major issue that was brought to light in Operation Iraqi Freedom was the difficulty of recovering commercial containers. By 2005, the number of unaccounted-for commercial containers exceeded 60,000, costing the Department of Defense detention fees in excess of $513 million monthly.

Many containers ended up being used for force protection when units turned them into bunkers, ammunition facilities, unit arms rooms, and forward operating base perimeter walls. This was the result of the inability to upload empty containers at support areas for retrograde because of limited container-handling capabilities and because corps convoys did not wait for retrograde containers to be uploaded.

Distribution Throughput

Distribution throughput techniques are the way forward for shipping containerized cargo. Current sustainment strategies work well for doctrinally based logistics operations in a mature theater, where sustainability operations and support operations are being accomplished by routinely replenishing break-bulk cargo that is palletized on the backs of trucks.

However, since cargo must be handled multiple times before it reaches its final destination, this distribution method does not work well in forward combat areas that have little palletizing equipment and cannot sustain offensive operations. During these periods, containerized throughput methods of respool are involved in maintaining the momentum of the offensive.

MHE is a force multiplier; however, it requires substantial maintenance and transportation support. RTCHs also are not likely to be located forward on the battlefield during offensive operations, and forklifts are unstationary.

Reducing Dependence on MHE

The challenge is to prevent these problems from being repeated during future full-spectrum combat operations. Logisticians can sustain a fast-paced offensive operation more efficiently by reducing the number of time cargo must be handled before it reaches the point of consumption. They must decrease the amount of time needed to conduct resupply operations and eliminate reliance on MHE. Finally, logisticians need to avoid future container retrograde issues that lead to large detention fees.

Logisticians must develop new techniques, procedures, and equipment that can enable improved distribution-based logistics capabilities. They can accomplish this by meshing container-handling and transportation capabilities into a seamless system that provides the ability to sustain offensive operations while maintaining the maneuver commander’s momentum. The recommended course of action to solve these problems is based on using the M1075 palletized load platform system with a container that has rollers on its floor, like those in a transport aircraft that can deliver supplies all the way to the forward lines without the need for MHE. Using the hydraulic arm hook or container-handling unit on the back of the truck to tilt the container at an angle off the rear of the truck would allow for the palletized cargo within the container to roll out onto the ground. Cargo could be delivered directly to maneuver battalions from unit support companies, where it could be broken down for distribution to combat units.

A second course of action adds a hydraulic system to a 40-foot trailer, similar to the hydraulic system on an M1000 heavy equipment transporter system. The hydraulic system lifts up the trailer in the front and lowers it in the back. By adding ramps, palletized supplies then can roll off onto the ground.

These techniques could revolutionize the Army’s distribution capabilities. This new delivery method provides the ability to strategically deliver supplies forward on the battlefield to combat units. It eliminates the need for MHE to download or transfer cargo, along with the extensive maintenance issues related to the limited availability of repair parts during initial combat phases. It would significantly reduce the vulnerability of soft targets (logistic vehicles) in forward combat areas and greatly cut the time needed to download supplies.

Supplies that combat units cannot carry or consume can be left behind for follow-on formations to consume. This technique would eliminate the need for flat-track exchange or trailer transfer operations and related property book issues.

The M1075 palletized load system truck is a common operating platform across the Army with reliable repair part stocks available and a proven maintenance record. The M1075 platform is currently up-armeded and has a successful track record of providing protection to the Soldiers who operate it. The M1075 is a tactical vehicle capable of traveling over rougher terrain than M915 tractor units with M872 trailers while carrying the same load (two 20-foot containers).

This technique will also eliminate the need for container retrograde operations because the container remains a part of the system and will never be left behind.

major j. luccowitc, jr., is the support operations officer for the 626th brigade support battalion, 3d brigade combat team, 101st airborne division (air assault), at fort campbell, kentucky. he holds a b.s. degree in management from norwich university and an m.s. degree in logistics management from florida institute of technology.
COMMENTARY

Retaining Logisticians

BY COLONEL GARY C. HOWARD, USA (RET.)

How can the Army ensure that enough logisticians are available for future operations?

Logisticians are essential to any Army operation, and logisticians are concentrated in the Reserve components (RC), particularly the Army Reserve. In recent years, the RC has transformed itself from a strategic reserve to an operational reserve. Because of this transformation, the RC has been able to respond to the Army’s additional logistics support needs and, at the same time, RC Soldiers have gained a degree of predictability in their lives. Recruiting and retention are successful right now, but maintaining these numbers has been accomplished with a significant increase in cost and a decrease in quality. What will happen when the economy turns around?

Although we technically have a Selective Service System, we do not have the political will to activate it. And we have no logistics solution for how to train and equip a conscripted force even if we wanted one.

This question is particularly important for logisticians and for the Army. With no draft available, the Army Reserve and the National Guard are the only trained forces that can be quickly made available to support the Active component and a large, cost-effective strategic reserve for exceptional emergencies. Reserve, and you split them into a strategic reserve and an operational reserve.

In recent years, the Quadrennial Defense Review Independent Panel (QDRIP) stated, “There is reason to doubt that the military can attract and maintain the requisite numbers of recruits and maintain its high quality as the economy continues to improve and unemployment declines. It is a fact that over the past decade, despite limited job creation, the force has survived only through extraordinary efforts and at substantial additional costs.” The QDRIP noted several specific areas of slipping standards and increasing costs:

- The maximum enlistment age was raised to 42.
- More recruits have been accepted without high school diplomas (29 percent in 2008, the most in 25 years), with criminal records, and in category IV on the Armed Forces Qualification Test.
- More noncitizens were recruited.
- The Army offered enlistment and reenlistment bonuses as high as $40,000, which the former Compensation Director General of the United States described as “unsustainable.”
- Advertising costs have tripled since 1997.
- Selection rates for officer promotions are at 95 percent, significantly higher than the normal average of 80 percent.

This demand for Reserve Soldiers

Although it is impossible to predict exact future requirements, several trends seem likely. First, the demand for deployed forces will probably go down. At the end of 2011, essentially all U.S. troops had left Iraq, and forces committed to Afghanistan increased in 2010 but began drawing down in the summer of 2011. Second, any President is unlikely to choose to go to war again anytime soon. These factors should better enable the Active Army to respond to contingencies and significantly reduce the demand for Army Reserve forces.

QDRIP Observations

Recently, the Quadrennial Defense Review Independent Panel (QDRIP) pointed out:

Those planning to continue education beyond high school already include 85 percent of youth today. In addition, numerous surveys reveal a decline in the propensity of youth to serve. More than 75 percent are ineligible for physical, mental, or educational reasons, or due to criminal records (unless standards are reduced even further). The numbers of service-influencers—people who influence our youth to enlist, which are overwhelmingly family members who are veterans—are also declining in the American population.

Identifying the Need

The real question is how can we best ensure that there are enough RC Soldiers for the next Desert Storm. Although we technically have a Selective Service System, we do not have the political will to activate it. And we have no logistics solution for how to train and equip a conscripted force even if we wanted one. The RC is the only reserve we have.

In the long run, will regular activations help or hurt recruiting and retention? Will Soldiers be more willing to stay if they are comfortable in their training or actual practice on a regular basis, or will the repeated activations be too disruptive to families and civilian careers?

These questions are not simple to answer. Reserve Join or stay in the service for many reasons. However, ultimately, they have to weigh patriotism against the practical needs of family, civilian careers, and community responsibilities. We will always have some reservists who can devote unlimited amounts of time to the military and whose careers will not be hurt by repeated deployments. The critical question is whether there will be enough reservists if we continue with the activation cycle of an operational reserve. Will the repeated activations (or the threat of them) deplete the ranks below a critical number? Can we afford the bonuses and benefits to entice them to join?

Possible Solution

So far, the discussion about the future of the RC has centered on the strategic reserve and operational reserve. However, these may not be the only two options.

In 2002, the Chief of Army Reserve, Lieutenant General James R. Helmy, suggested a “third force” to bridge the gap between the Reserve and Active components.

In 2002, the Chief of Army Reserve, Lieutenant General James R. Helmy, suggested a “third force” to bridge the gap between the Reserve and Active components. This innovative concept received very little interest then, but it may be time for a second look. Under this concept, some number of reservists would agree to be available for repeated activations on short notice. In return, they would receive additional pay and benefits. The Soldiers would be organized into units that would form a small but effective “quick reaction” force. The bulk of the Army Reserve would continue as a traditional strategic reserve, modeled on that of the Desert Storm era. Activations of these Soldiers and units would involve a period of postmobilization training to give them a “tune up” to Active Army standards before deployment. This scenario would allow more RC Soldiers to remain in the force and be on call when needed for quick missions or for large-scale Desert Storm-like deployments.

The executive director of the QDRIP, Paul Hughes, recognized this strategy when he observed, “Right now [the RC is] boxed in by cold war attitudes and procedures and requirements associated with the Reserve, and you split them into a strategic reserve and an operational reserve.”

Reservists have long had multiple ways to participate, so adding a new option would be nothing new. Many RC Soldiers belong to a troop program unit that drills monthly. In the Individual Ready Reserve, Soldiers are on call as needed. Individual mobilization augmentees are assigned to fill key positions in active units upon order. Soldiers in the Active Guard Reserve program work full time in their units of assignment.

Lieutenant General Helmy’s third force seems to offer the best of both worlds. The Nation gets a rapid reaction force from the RC to support the Active component and a large, cost-effective strategic reserve for exceptional emergencies. Reserve logisticians also get additional options for continuing their military careers in a way that is compatible with their civilian career and family needs.

Colonel Gary C. Howard, USA (Ret.), was the commander of the 393rd Troop Command, Terminal Brigade at Mare Island, California. During his Army Reserve career, he served in battalion and company command and staff assignments in 10 units in 4 states. In his civilian career, he is a principal scientific editor for an independent biomedical research institute affiliated with the University of California, San Francisco. He has a Ph.D. degree in biological sciences from Carnegie Mellon University.
The Polar Bear Expedition: The U.S. Intervention in Northern Russia, 1918–1919

by Alexander F. Barnes and Cassandra J. Rhodes

O
outside the wooden walls of the outpost in north-
ern Russia, the wind picked up again, causing
the frozen snowflakes to rattle against the thick
smoke-colored glass of the window panes. The young
American corporal blinked and then looked out again.
Something was moving out there in the tree line beyond
the railroad tracks. Was it the “Reds” scrounging the Al-
lied positions, or was it the equally frightening pack-
of wolves that roamed the forest near this lonely guard
post? With luck, it was neither but merely a Canadian
patrol coming to make contact and perhaps get warm
before heading back to their own outpost.

Not taking any chances, the corporal yelled across the
room to his sergeant and then picked up his Mosin-
Nagant rifle to be ready in case the visitors were hostile.
As he did so, he had the fleeting thought that this was
touch for a drafty Detroit to spend Christmas of 1918.

As described in the article, “Logistics in Reverse: The U.S. Intervention in Siberia, 1918–1920” in the January–February 2012 issue of Army Sustainment, the U.S. Army was present in Russia at the end of World War I for several reasons. One was that the massive amounts of military supplies and equipment stockpiled at the Siberian port of Vladivostok and the northern Russian ports of Murmansk and Archangel had to be recovered for retrograde to their countries of origin or distribution to the anti-Bolshevik “White Russian” forces fighting the Bolshevik “Red” army in the Russian Civil War. These supplies, including 110,000 rifles in the north-
er Russian warehouses alone, had been provided to the
Czar’s forces by France, Great Britain, and the United
States in a vain attempt to keep them fighting against the
Germans. But that had not worked. The Russian lead-
ers had been incapable of distributing the war material
to their forces, and most of what they received still sat
in the warehouses where it had been initially offloaded
from Allied ships. Some wishful politicians subsequently hoped that a small Allied military force could stabilize the
area long enough for the Russians to create a democratic
government and field a viable army.

Four thousand miles east of Archangel, in the vast
 expanses of Siberia, two other reasons led to American
involvement: supporting the movement of the Czech
Legion in its attempt to escape from Russia and halting

The only resource in great abundance in northern Russia
was lumber, and it was used as the basic material for defensive
positions and blockhouses. Even the sawdust was useful,
serving as insulation between interior and exterior walls. In
an indication of the scarcity of vehicles, a number of Ameri-
can, French, and British sol-
diers catch a ride on one of the
trucks assigned to the Ameri-
can lumberyard in Archangel.

The two towns were also critically important because of
their close proximity to the railway lines and the navi-
gable rivers in the region. Control of these towns gave
the White Russian forces and the Allied expeditionary
forces direct access to waterways that were essential for
their campaigns in this isolated region close to the Arctic
Circle. The combination of rail and river access allowed
the Allies to move supplies, communicate with the rest
of Russia, and deploy their troops where they desired
throughout the countryside.

The American Northern Russia Expedition

In response to a request similar to that from the Allies
to send U.S. Army troops to Siberia, the U.S. Government
ordered the Army to deploy a force, which soon became
known as the Northern Russia Expedition, to Archangel
Province in Russia. Unlike the U.S. Regular Army units
that deployed to Siberia, the Soldiers sent to northern
Russia in August 1918 were mainly drafts from the
Midwest. The force consisted of the 339th Infantry Regi-
ment (also known as “Detroit’s Own”), a battalion of the
310th Engineer Regiment, the 337th Ambulance Com-
pany, and the 337th Field Hospital. Including later rein-
forcements, fewer than 6,000 Americans were deployed.

The U.S. units, originally assigned to the 85th Divi-
sion, had been destined for frontline duty in France when
the orders arrived diverting them to Russia. Along with
the new destination, the doughboys of the expeditionary
force were directed to turn in their recently issued British
Enfield rifles and were armed instead with Russian made
Mosin-Nagant rifles. Though an unpopular exchange, this
order made sense logistically since significant stockpiles
of Nagant ammunition were already awaiting the force in
warehouses at the Russian ports.

The convoy that delivered the 339th Infantry Regiment
from England to Russia also carried two other significant
passengers: a small Italian army contingent and influenza.
Unfortunately for the Italian and American Soldiers,
influenza proved to be a terrible foe. Over 100 Soldiers
died from its effects either en route or almost immediately
after arriving in Russia.

Awaiting the arrival of the American force, and spread
thinly throughout northern Russia, were the British, Ca-
nadian, and French expeditionary detachments and their
sometimes reluctant allies, the White Russians.

The mission to protect and distribute the stockpiles of
military equipment in Archangel was nearly a failure be-
fore the 339th Infantry Regiment even set foot in Russia.
Pro-Bolshevik forces had seized the port and were load-
ing supplies onto railcars when a small force of British
and French soldiers, accompanied by 50 American Sailors
from the USS Olympia, managed to retake the town.

This mixed force was able to stop the passage of some
of the trains and recover some supplies; however, a large

En route to Arch-
angel, a group of
339th Infantry
Regiment dough-
boys pose with their
newly issued M1911
Mosin-Nagant
rifles. Most would
have preferred to
keep their originally
issued British En-
fields, but the large
supply of Nagant
ammunition already
in theater drove the
rearming decision.
(Photocourtesy of
Charles G. Thomas)
amount had already been “liberated” by the Bolsheviks. With more enthusiasm than common sense, the Allied force then set out after the fleeing Reds and soon became trapped and required rescue from the just-landed, and force then set out after the fleeing Reds and soon became armed | Deteriorating Conditions |

Another harsh reality for the Americans was that the supply pipeline run back to Britain, and most of the U.S. Soldiers were doing the bulk of the fighting and the work. John Cudahy, a lieutenant in the 339th Infantry Regiment (and later U.S. Ambassador to Poland, Ireland, Belgium, and Luxembourg) accused the British officers of “muddling, blundering and fuddling,” and he found them generally to have a “lack of understanding, the brutal arrogance and cold conceit.” Other American officers were equally upset by the disparity in rations provided to wounded American enlisted men at British-operated hospitals in comparison to the rations provided to British officers. In time, with the help of the American medical personnel and placed in their hospital | The gunboat USS Sacramento arrives in Archangel to assist in withdrawing the American forces from northern Russia in June 1919. The Sacramento served the Navy for many years and is credited with shooting down a Japanese aircraft during the attack on Pearl Harbor, Hawaii, in 1941. |

Sustainment Operations and Challenges |

Supporting the American forces was the 339th Infantry Regiment’s regimental supply company under the command of Captain Chauncey Wade. Complicating Wade’s mission was the fact that the distances between some of his “customer” units were equal to the distance from New York City to St. Louis. His Soldiers were forced to rely on riverboats, railroad, horse-drawn wagons, and even reindeer-drawn sleds to deliver the required supplies to the scattered outposts. Accompanying the new commander were the only unit in late November 1918 soon marked a change in philosophy. Under his command, the Allies adopted a more defensive posture and attempted to survive until spring brought better weather. Operating and defending in an area the size of Texas and Mexico combined, the Allies reinforced their fortifications and prepared to hunker down in the bitter cold. It became painfully obvious just how poorly informed the U.S. Army headquarters in Paris was about the events in Russia when, in response to a telegraphic report about the status of U.S. forces in Pinega sent by 339th Infantry Regiment headquarters in Archangel, it received a telegram back asking, “Just where is the Pinega front?” What had started as an expedition to rescue military supplies and stabilize a portion of Russia had changed focus to staying alive through the winter. Sensing the shift in Allied tactics, the Bolsheviks began a winter campaign aimed at dislodging the foreigners from their country. Using their knowledge of the terrain and their ability to move swiftly through the countryside on skis and sleds, the Bolshevik forces infiltrated the region. In January 1919, after a pitched battle, they managed to drive the Allies from a stronghold at Shanskur and force them to retreat toward Archangel. By April 1919, when a new U.S. commander arrived in Archangel with orders to evacuate the American force as soon as practicable, the Allies had been forced to evacuate many of their distant outposts. Accompanying the new commander were the only unit-
Lessons Learned

We can take away several lessons from the U.S. Army experience in northern Russia.

Trust your people on the scene.

When the British requested U.S. support for the Northern Russia expedition, they stated, “The dispatch of additional French or British reinforcements is impossible and it is therefore essential that America should help by sending a brigade…” And then they added, “It is not necessary that the troops sent should be composed of regulars, but I anticipate that military operations in this region will only be of irregular character.”

The U.S. consul in Archangel at the time, Felix Cole, strongly opposed American participation. Cole replied in June 1918, with some foresight, “Intervention will begin on a small scale but will grow in scope and in its demands for ships, men, money and materials. It means establishing and maintaining telegraph, telephone, wireless, railroad, river, White Sea water, sledge, automobile and horse communication with repair shops, hospitals, food warehouses, munitions trains, etc.” He also predicted that the Russians would not prove to be effective allies against the Reds: “They work for themselves neither willingly nor effectively. Still less so will they work for others.”

The U.S. Government ignored Cole’s warnings and deployed the 339th Infantry Regiment to Russia anyway. As a result, out of a force of 5,000 soldiers in the U.S. Army, the Polar Bears suffered 244 deaths from action or accidents, 305 wounded, over 100 dead from influenza, and one suicide.

Rank is important.

When operating in a coalition, the leaders of an expeditionary force must have rank commensurate with their responsibility. If this is not possible, ensure that they understand that they maintain the ultimate authority in how U.S. forces are employed. In far too many instances in northern Russia, the senior American officer on the scene was only a captain or a lieutenant and therefore was outranked by an attached British or French officer. Though they commanded fighting forces, the American junior officers were inordinately reluctant to act on the advice from senior foreign officers who were completely unfamiliar with U.S. goals, tactics, and capabilities.

Because of some of the complications arising from this problem, General John J. Pershing, the overall U.S. commander in Europe, would later insist on an equal footing for U.S. forces, the American junior officers were inordinately reluctant to act on the advice from senior foreign officers who were completely unfamiliar with U.S. goals, tactics, and capabilities. Pershing insisted on an equal footing for U.S. forces, the American junior officers were inordinately reluctant to act on the advice from senior foreign officers who were completely unfamiliar with U.S. goals, tactics, and capabilities.
Global Combat Support System–Army will enable the Army to transform its logistics processes by integrating legacy system functions into a single repository to store and view logistics data. The authors describe how users have responded to using the system.

The Global Combat Support System–Army Solution

This transformation is becoming a reality with the introduction of the Global Combat Support System–Army (GCSS–Army). GCSS–Army is an enterprise resource planning (ERP) system that will enable the Army to transform its logistics processes by subsuming legacy system functions into a single repository to store and view logistics transactional data. The Army Combined Arms Support Command’s (CASCOM’s) Enterprise Systems Directorate (ESD) and the Project Manager (PM) GCSS–Army, with its systems integrator, Northrop Grumman, is developing a tactical ERP system to replace legacy LOG IT systems. This system is based on the commercial off-the-shelf Systems, Applications, Products in Data Processing (SAP). Using SAP allows the Army to begin LOG IT transformation with a specific baseline that fits the logistics processes that the Army is accustomed to with minimal custom coding. Using SAP’s capabilities, logistics can be reengineered to provide more effective and efficient processes to conduct business and enable seamless transformation.

The Business Transformation Agency has stipulated that GCSS–Army will provide logistics managers with increased equipment readiness through near real-time maintenance and supply status. This is possible through the GCSS–Army integrated solution, which maintains a single database for the storage of all logistics and tactical financial information. This single database eliminates the need to seek information from other systems or databases for logistics information.

GCSS–Army provides the logistics community with several benefits, including increased service, decreased cost, decreased logistics cycle time, and increased asset visibility. The current logistics functional areas will remain the same under GCSS–Army. However, each business area will employ new logistics management processes. The Army selected five functional business modules to implement, which are currently in use at the 11th Armored Cavalry Regiment (ACR) at Fort Irwin, California. These modules chosen by the Army are warehouse management (retail supply), inventory management (property book and unit supply), plant maintenance, finance, and Defense Forces and Public Security (DFPS). Together, these modules provide enhanced logistics capabilities and enable better logistics management at reduced costs.

DFPS is the heart of GCSS–Army. It uses force structure data from the Army Force Management Support Agency to create and manipulate a force element structure. This structure mirrors the Army’s hierarchical structure for the sole purpose of conducting sustainment operations. DFPS will provide the Army with a streamlined process to task-organize and conduct split-based operations and enable defense organizations to plan for, build, and operate a mobile force using flexible systems architecture.

The warehouse management module employs a material requirements planning function, which provides enhanced demand planning and forecasting, net asset computation, planned delivery times, and excess management capabilities. The inventory and warehouse management modules together provide intelligent stock placement, full traceability and visibility, deliberate excess and repairables management, and proof-of-delivery capabilities. The procurement and distribution
functions provide dynamic reporting tools, activity monitoring (due-ins/due-outs), in-transit visibility, and full order history capabilities, among others. Property book enhancements provide users with view maintenance-related information for all assigned assets. The plant maintenance module provides users with equipment readiness and enhanced personnel qualification management capabilities. The Equipment Situation Board provides a single screen where users can view equipment status. (See screenshot at right.) With the click of a mouse, users can view work order status, parts status, and other information related to the equipment. GCSS–Army allows users to view or pull details on any item an organization owns. For example, the screenshot shows an equipment situation report displaying the equipment assigned to an organization within the 11th ACR. The first two columns display the equipment administrative number and the operational status of the equipment: fully mission capable, not mission capable (supply), or not mission capable (maintenance). Next, there are two icons that provide a visual representation of the operational and technical status of the equipment.

Finance is an entirely new process for logisticians, and the focus is on operational costs, not on budget execution. Logistics costs are captured automatically without the intervention of logistics users. For example, tactical equipment maintenance costs are collected by unit, which allows users to determine the potential cost of an exercise. This new capability enables the appropriate personnel to review requisitions by national item identification number, price, or priority before they become obligations. The finance module can be a robust tool for commanders in forecasting budgeting requirements.

**Why Transform?**

The system just described is the result of Joint Vision 2010 and Focused Logistics, which signaled the beginning of the transformation process. The logistics capabilities of the future are akin to a paradigm shift or what has been called the “Revolution in Military Logistics.” A transformation is needed because the Army can no longer afford to work within functional boundaries and win on the battlefield. Maintaining stovepiped systems dramatically reduces the effectiveness of an organization in meeting its strategic goals. A complete transformation is underway; it is based on business process management, which will require logisticians to cross functional boundaries to perform logistics tasks. This transformation has strategic implications in the form of streamlined processes, increased customer service levels, reduced customer wait time, reduced inventory, increased productivity, better financial management, and reduced logistics costs, among others.

To be successful, transformation on this scale will require a culture shift from stovepiped functional logistics areas to crossfunctional business areas using enterprise data and information for decision-making. This transformation will require every logistics process to be analyzed, diagnosed, and then reengineered into a more efficient and effective process.

In an organization such as the Army, reengineering must blend process management, which is the use of joint strategies, increasing the Army and Department of Defense’s ability to transform logistics at the enterprise level. The result of these reengineering and integration activities will provide the logistics community with visibility over the statuses of transactions, equipment, and materiel. Visibility will enable the Army to identify critical mission functions (CMFs) in logistics business areas. This will allow enterprise transformation by connecting these CMFs to Army and joint strategies, increasing the Army and Department of Defense’s (DOD’s) ability to transform logistics at the enterprise level.

GCSS–Army is complex, with more than 700 active transaction codes used in various business areas at multiple levels throughout the Army. The visibility this system offers requires a high level of data integrity. Access is no longer limited to the logistician; commanders, decisionmakers, operators, and their supervisors will now have access. The complexity of the system requires extensive training because user satisfaction with information systems is a key factor in a successful ERP implementation.
PM GCSS–Army and CASCOM ESD a glimpse of how the system will be received in the field. The JIT participants were a mix of Army National Guard and Army Reserve personnel with over 60 years of combined logistics and financial management experience using legacy and automated financial management systems. The diversity of these users was critical in testing the system.

The JIT was intended to help the development team enhance GCSS–Army’s effectiveness and quality. The survey addressed each functional area by allowing users to provide responses to open-ended questions in these categories. The survey found that most users agreed that GCSS–Army provided a “greater level of visibility and data accuracy” than legacy systems, especially when it came to total asset visibility of classes II (clothing and individual equipment) and VII (major end items).8

IGT Results

Users thought that being able to immediately hand-receipt equipment to the user level as soon as equipment is received was a capability that legacy systems did not provide. But these same users found the dispatch process to be time consuming. One respondent suggested that a legacy dispatch that took less than 5 minutes takes 10 to 15 minutes in GCSS–Army.8

Because of this observation, CASCOM has been working with developers to enhance many of the system’s processes, including the dispatch process. For instance, by reviewing the process log for each completed dispatch, an analysis can be conducted to determine the length of time a dispatch notification takes. This process includes the time from when a user begins the dispatch notification until the notification is completed and the dispatch is put in process.

During the period from 31 October to 30 November 2011, 63 dispatches were processed at the 11th ACR. A random analysis of 63 of the completed dispatches revealed that the average time to put a dispatch in process was 5 minutes 12 seconds.

During the period from 15 May to 30 June 2011, 361 dispatches were completed. A random analysis of 63 completed dispatches revealed a reduction in the time it took to put a notification in process from 5 minutes 12 seconds to 3 minutes 51 seconds.

One explanation for the improvement could be that leaders implemented local policies and procedures to improve the processing of dispatches. Or CASCOM and the developer may have streamlined the dispatch process. Another possibility is that 11th ACR users are more experienced with interfacing GCSS–Army chain. Most notably is the switch from the SAP graphical user interface (GUI) for hypertext markup language file (HTML) to the SAP GUI for Java.

One explanation for the improvement could be that leaders implemented local policies and procedures to improve the processing of dispatches. Or CASCOM and the developer may have streamlined the dispatch process. Another possibility is that 11th ACR users are more experienced with interfacing GCSS–Army chain. Most notably is the switch from the SAP graphical user interface (GUI) for hypertext markup language file (HTML) to the SAP GUI for Java.

Users indicated that operator qualifications management significantly improved in GCSS–Army over legacy systems. The human resources (HR) management capability is not a major module within GCSS–Army, but it does play a part. Without the HR processes, vehicles could not be dispatched and materials could not be assigned. HR processes also dictate security role management in the enterprise using MTOE and TDA data from the Army Force Management Support Agency.

For example, through an interface with authoritative HR sources, such as the Electronic Military Personnel Office, when personnel are assigned to MTOE or TDA positions through an interface with these agencies, users inherit specific security roles and permissions and access GCSS–Army with a security-enabled common access card. In legacy LOG IT systems, operators had to have their operator permits regenerated or rebuilt when they arrived at their new duty station. GCSS–Army maintains qualifications on all personnel, eliminating the need to recreate qualification records.

Finance will be new to many logisticians, and most of the financial transactions occur behind the scenes and do not affect the logistics users. GCSS–Army provides interface and transactional-level data to the General Fund Enterprise Business System (GFEBS). This system provides the financial visibility of the Army’s tactical assets. Overall, the respondents provided positive feedback on finance functionality. One respondent stated that GCSS–Army provides the “ability to track budget in one place and have an automatic mirror image,” which provides finance and logistics users more visibility over spending.

This control is provided by GCSS–Army through the ZPARK function, which works much like the Integrated Material Automation Program (IMAP) checklist, which is an Army National Guard requirement. How-

ever, the finance capability is still being developed and enhanced by the support requirements team. The mandate is to have a fully synchronized federal template for GCSS–Army and GFEBS. This capability is one of the more difficult functions because it requires multiple systems and programs (the Defense Finance and Accounting Service, the Assistant Secretary of the Army for Financial Management and Comptroller, GFEBS, and GCSS–Army) to agree on a standardized solution that will work for the Army as an enterprise.

Overall, the IGT participants’ comments and contributions are valuable to CASCOM ESD and PM GCSS–Army. Comments and contributions from users in the tab setting provide guidance and help to direct efforts to enhance the system’s capabilities, effectiveness, and quality, which affect user satisfaction with the system.

11th ACR Stakeholder Assessment

PM GCSS–Army, in coordination with Northrop Grumman, conducted a stakeholder assessment in January 2011. During this 3-day event, Northrop Grumman’s Organizational Change Management (OCM) team conducted 1½-hour interviews with 46 GCSS–Army users at the 11th ACR. Leaders and managers seemed to like the capabilities the system provides. For instance, the assessment suggests this group of users appreciated the increased visibility of statuses and improved logistics planning.

Unlike many legacy systems, clerks can multitask in GCSS–Army. Users in the maintenance section of the 58th Engineering Company stated that before GCSS–Army only one clerk at a time could complete a task, but now clerks can perform several functions at the same time. This level of efficiency was unheard of with legacy systems.

Maintenance users seemed to like the system; they stated that the dispatch process “... has improved 10-fold from legacy [equipment].” This was attributed to the visibility of equipment statuses, which is provided in near real time in the equipment status report. However, to maximize the benefits for users and the organization, leaders need to be brought up to speed on the enhancements made to the dispatch processes.

Supply users revealed a different outlook on the system. Users in the support operations section (SPO) had difficulties understanding the new manager review function and how cancellations were processed. As a result of the enhancements to the process, only those users who opened a request could terminate it and only those in the SPD had visibility of the release strategy.

This created confusion and problems at lower echelons of the command. The 11th ACR leaders had to redefine and retrain users on the expectations of this process and how communications were handled. This was a result of the enhancements to the process, only those users who opened a request could terminate it and only those in the SPD had visibility of the release strategy. Although there was training, and how cancellations are processed, as a result of the enhancements to the process, only those users who opened a request could terminate it and only those in the SPD had visibility of the release strategy.
plays an important role in user satisfaction. For example, users are realizing the benefits associated with an integrated system like GCSS-Army. It is important for leaders to understand that users can be affected negatively by the implementation of a mandatory-use ERP can negatively affect user satisfaction with the system. Together, their efforts in training evaluation activities. Having representation from the field helps the developers capture the expertise needed to develop training products that are more realistic and as close to the logistics environment as possible. This also helps to ensure that training meets the standards suggested by participants from both the IGT and the site visit conducted by the OCM team.

It is apparent, despite training issues and learning curves associated with the system, that users are adopting GCSS-Army's capabilities. It is important for leaders to understand that users can be affected negatively by the implementation of a mandatory-use system. The implementation of a mandatory-use ERP can negatively affect user satisfaction with the system. Together, their efforts in training evaluation activities. Having representation from the field helps the developers capture the expertise needed to develop training products that are more realistic and as close to the logistics environment as possible. This also helps to ensure that training meets the standards suggested by participants from both the IGT and the site visit conducted by the OCM team.

For further information about GCSS–Army, visit the GCSS–Army website, www.gcss.army.mil, or contact one of the authors at william.a.huckabee.civ@mail.mil or marcus.smoot@us.army.mil.

Lead Materiel Integrator Decision Support Tool Released by Logistics Support Activity

The Army Materiel Command’s Logistics Support Activity (LOGSA) released the Lead Materiel Integrator (LMI) Decision Support Tool (DST) on 15 December 2011. LMI DST contains a powerful sourcing engine that compares the Army’s resources with its validated and prioritized requirements. The tool helps leaders make decisions about materiel distribution and redistribution within their units and agencies and provides guidance based on current Army policies and directives.

The initial software release and the designation of the Army Support Command as the Army’s LMI on 15 February 2012 change the way the service executes materiel distribution by shifting the management of equipment to a collaborative, web-based environment emphasizing transparency and efficiency. LOGSA plans to improve LMI DST every 6 months until it becomes fully functional in June 2013. A future release will track each approved action from initiation to fulfillment.

Army Field Support Brigade Supports Department of State Mission in Iraq

Personnel from the 402d Army Field Support Brigade (AFSB) are providing maintenance support for Army equipment handed over to the Department of State and the Office of Security Cooperation–Iraq after the withdrawal of U.S. forces from Iraq.

“While the combat mission performed by [the] unified military presence will transition, the 402d Army Field Support Brigade will continue to support our Nation’s objective of maintaining a stable strategic partnership with Iraq,” said Colonel John W. Laskodi, commander of the 402d AFSB. Brigade support to the Department of State mission includes base life support and maintenance support for force protection equipment, such as mine-resistant ambush-protected vehicles. The brigade will have personnel at Department of State sites and will operate maintenance hubs at Basrah, Kirkuk, and Taji.

Army Explores Hydrogen Fuel Cell Use

The Army is in the process of providing hydrogen fuel cells to 24 buildings at 9 Government sites to replace fossil-fuel cells for backup power generators. The Building Operations Control Center at Aberdeen Proving Ground, Maryland, was the first site to have the new cells installed.

The Department of Energy and the Army Corps of Engineers project has been underway since November and is one of many projects initiated to improve the energy security of the United States. The technology is also being considered as an option for stationary power systems, light-duty vehicles, portable electronics, forklifts, and portable lighting equipment.

Shower Water Reuse Systems Employed at Forward Operating Bases in Afghanistan

Since September 2011, the Army has fielded 54 shower water reuse systems (SWRSs) to units in Afghanistan. The SWRS is deployed by the Army Product Manager Force Sustainment Systems, is designed to drastically reduce the logistics burden on units supplying forward operating bases. SWRSs lower the cost per gallon of water and the time spent transporting water to resupply deployed troops.

Each SWRS costs approximately $170,000. The technology combines the tactical water purification system and hospital containerized batch laundry capabilities to treat and return up to 9,000 gallons of water a day. Using just one system at its full capacity can result in saving potentially 3.2 million gallons of water a year. Shower water makes up about 75 percent of the potable water used on forward operating bases. Ken Fahey, program executive officer for combat support and combat service support, says that drastically reducing water resupply missions by using SWRS returns more Soldiers to the field and reduces the burden on forces during drawdown operations.

“The Army, 70 to 80 percent of our resupply weight or convoy weight is fuel and water,” said Assistant Secretary of the Army for Installations, Energy and

W. Allen Huckabee is a logistics management specialist, combat developer, and developmental test lead working on the Global Combat Support System–Army program for the Combined Arms Support Command. He holds an M.B.A. degree from Saint Leo University and is currently working on his dissertation for a Ph.D. degree from Capella University.

Captain Marcus Smoot is a logistics branch officer and chief instructor for the Army National Guard’s Professional Education Center installations, logistics and environmental training center. He instructs the Army Logistics University support operations course and is the Army National Guard logisticians officer for Global Combat Support System–Army. He holds a bachelor’s degree in landscape architecture from Iowa State University and a master’s degree in education from Gardner-Webb University. He is a graduate of the Combined Logistics Captains Career Course.

24 Fethi Calisir and Ferah Calisir, p. 511.
22 Ibid., p. 284.
Environment Katherine Hammack. “We know that our budgets are going to be coming down. . . . But if we can deploy technology that makes us much more efficient, so we don’t need those resources, we’re not only demonstrating fiduciary responsibility, but we’re enhancing the mission.”

At this time, the water used in SWRS has been approved by the surgeon general for shower reuse only. Additional testing at Fort Devens, Massachusetts, is working on using the same system for laundry water reuse.

Inaugural Equipment Innovation Awards Presented by the Army Food Advisor

The Army Food Advisor Equipment Innovation Award Program was established in 2011 to recognize Soldiers for their creativity and innovation in developing field equipment or components that will help shape the Army’s forward field-feeding solutions for the year 2020 and beyond. The first winners of the awards were recognized on 15 November 2011 at the Natick Soldier Research, Development and Engineering Center in Massachusetts.

The individual award winner was Specialist Shaunta Cain of B Battery, 5th Battalion, 7th Air Defense Artillery, in Kaiserslautern, Germany. She was recognized for her design of a compact Army field kitchen.

The organizational award went to Chief Warrant Officer 3 Sheldon Tate (posthumously) of the 508th Parachute Infantry Regiment, 4th Brigade Combat Team, 82nd Airborne Division, at Fort Bragg, North Carolina. This group designed and fabricated the Spartan field kitchen, which then was operated at a remote site in Kandahar Province, Afghanistan. Sergeant Tate’s operation of the kitchen provided testing results for improvements made to the design.

New Delivery System Provides Fuel and Water to Forward Operating Bases

A new system promises a more reliable, cost-effective way to transport fuel and water to remote outposts. The container unitized bulk equipment (CUBE) system contains 2 fuel blivets, or water bladders, that can hold as much as 500 gallons of liquid apiece for delivery to forward operating bases (FOBs) by helicopter, airplane, or truck. For air transportation, the bags are placed in two plastic crates and moved using a low-cost sling load net.

Traditionally, fuel and water are delivered in 55-gallon drums or 500-gallon blivets that can take up large amounts of space at small FOBs and have to be returned when empty.

The CUBE system removes these challenges. The systems are stackable and collapsible, making their storage and transportation more manageable. Once the liquid products are dispensed, the crates can be repurposed to provide additional storage and transport containers for FOBs.

No new equipment was developed for this system. It is composed of items already in the Government procurement system and commercially available items. The national stock number (NSN) for the fuel CUBE kit is 1670–01–598–5071, and the NSN for the water CUBE kit is 1670–01–598–5067.

The Quick Reaction Cell, Natick Soldier Research, Development and Engineering Center (NSRDEC QRC), and the Soldier Product Support Integration Directorate, Integrated Logistics Support Center, TACOM Life Cycle Management Command, have developed an interim technical document to guide system use until an official technical manual is developed for users to reference.

Dave Roy, an operations analyst with NSRDEC QRC, says the system will be useful to humanitarian missions executed by Government agencies, such as the Department of State, the Department of Homeland Security, and the U.S. Forest Service, in addition to the Department of Defense.

RECENTLY PUBLISHED

Army Techniques Publication (ATP) 3–90.90, Army Tactical Standard Operating Procedures, published 1 November 2011, is the first ATP published by the Army under the Doctrine 2015 initiative. The publication itself is only three chapters long. Numerous annexes to the document with examples of unclassified standard operating procedures (SOPs) can be accessed through the milSuite website, https://milsuite.mil/wiki/Portal:Standard_Operating_Procedures. These examples are designed to facilitate development of unit SOPs. Annex F, Sustainment, outlines sustainment operations and responsibilities.

Philip A. Connelly Award Winners Announced for 2012

The winners of the 2012 Philip A. Connelly Award for Excellence in Army Food Service were announced on 28 December. The award program is cosponsored by the International Food Service Executives Association (IFSEA) and the Department of the Army G–4 and is managed by the Army Quartermaster School at Fort Lee, Virginia. It recognizes Army food service excellence through the evaluation of food preparation, taste, nutrition, service, and sanitation practices. The 2012 winners are:

Military garrison: 1st Battalion, 10th Special Forces Group (Airborne) dining facility, Panzer Kaserne, Stuttgart, Germany.

Civilian garrison: Dining facility #2, Fort Gordon, Georgia.


Army National Guard field kitchen: 267th Maintenance Company, Lincoln, Nebraska.

Army Reserve field kitchen: 326th Quartermaster Company, New Castle, Pennsylvania.

The awards ceremony honoring these units will be held at the end of March in San Diego, California, during the IFSEA Conference and Trade Show.

Chemical Stockpile Destruction Completed at Anniston Army Depot

On 22 September 2011, the Anniston Chemical Agent Disposal Facility at Anniston Army Depot, Alabama, completed the disposal of the chemical weapons stockpile stored there and began closure operations. The facility’s original inventory of chemical weapons included 661,529 nerve agent and mustard agent munitions and 2,254 tons of chemical agent. The destruction of this stockpile began on 9 August 2003. Facility closure operations will continue through 2013. The Army Chemical Materials Agency has already completed disposal operations and closed chemical weapons facilities at Edgewood, Maryland; Newport, Indiana; and Johnston Atoll, located 800 miles southwest of Hawaii.

Army Greatest Inventions of 2010 Honored

The Army recognized its greatest inventions of 2010 on 11 October 2011. Many of the 2010 winners were developed in the field by Soldiers. The winning technologies are listed below.

40-millimeter infrared illuminant cartridge for M992 field artillery ammunition support vehicle. The cartridge produces infrared light that is only visible through night-vision devices so that Soldiers can see more clearly during nighttime operations.

MRS541 enhanced performance round. This 5.56-millimeter bullet features a larger steel penetrator tip than its predecessor and a copper core. From June to...
This replacement for the M240B machine gun was developed by the Infantry and Engineering Center and fielded to Soldiers in 2010.

M240L 7.62-millimeter lightweight medium machine gun. This replacement for the M240B machine gun reduces the weight of the weapon without compromising reliability.

Mobile Care Project (mCare). This cellphone-based, bidirectional messaging system was developed by the Telemedicine and Advanced Technology Research Center, Army Medical Research and Materiel Command. It is designed to connect care-team members with warriors in transit throughout their outpatient recovery process by way of the wounded warrior’s personal cellphone. It was developed by modifying commercial off-the-shelf technology to meet the needs of the Army Medical Department. The mCare system is secure and complies with the Health Insurance Portability and Accountability Act.

Mortar Fire Control System-Dismounted. This new system enhances the responsiveness of the M120/ A1 Towed Mortar System, enables digital coordination of multiple fire support systems, and reduces the time needed to emplace, fire, and displace the weapon.

RG–31 Robot Deployment System. This technology provides a low-cost, lightweight solution for transporting and deploying route clearance robots in combat. It enables Soldiers to comfortably transport, deploy, and operate road-clearance robots while remaining protected inside their vehicles.

Army leaders also recognized two 2010 Soldier Greatest Inventions. Staff Sergeant Vincent Winkowski and other members of the 1st Battalion, 133d Infantry Regiment, Iowa Army National Guard, developed the “Ironman” ammunition pack system for small-dispatch mounted teams. This high-capacity ammunition carriage system enables a machinegunner to carry and fire 500 rounds of linked ammunition from a rucksack-like carrier. Corporal Eric DeHart from the 428th Engineer Company also was recognized for designing and building a culvert-denial system to stop the placement of roadside bombs in culverts.

October 2011, Program Executive Office Ammunition fielded 30 million of these new rounds to U.S. forces in Afghanistan.

Green Eyes (escalation-of-force kit). This system, which has been integrated for use with the Common Remotely Operated Weapons Station, emits a wide band of green light that temporarily disrupts a person’s vision, making it hard to drive a vehicle or aim a weapon. At close range, the lasers provide an immediate, nonlethal capability. Husky Mark III (second generation, 2-seat prototype). This landmine detection vehicle responds immediately to the warfighter’s need to mitigate the risks of task overload on its operators. It also increases the ability of the route clearance package (RCP) to find and neutralize improvised explosive devices (IEDs) and provides direct-fire capability for the lead vehicle of the RCP.

Jackal Explosive Hazard Pre-Detonation System. The Jackal is an IED-defeat system that neutralizes threats to Soldiers during route-clearance and convoy-related missions. The Armament Research, Development and Engineering Center developed and fielded the system to Soldiers in 2010.

Upcoming Events

Transportation Corps to Celebrate 70th Birthday

The Army Transportation Corps (TC) will celebrate its 70th birthday at Fort Lee, Virginia, during the TC Symposium, to be held from 25 to 28 July 2012. All TC Soldiers are invited to attend. Events will include a state of the corps brief by the Chief of Transportation, Colonel (P) Stephen E. Farmen; memorialization of the Army Transportation School building, and ceremonies recognizing TC warriors, fallen heroes, and hall of fame inductees. There will also be a regimental run, a golf scramble, a regimental ball, static equipment displays, and automation systems demonstrations. For more information, visit the Army Transportation School page on Facebook or its website at www.transschool.lee.army.mil.

AUSA Sustainment Symposium and Exposition to Take Place in May

The Association of the United States Army will hold its Institute of Land Warfare Sustainment Symposium and Exposition from 8 to 10 May at the Greater Richmond Convention Center in Richmond, Virginia. This is almost 2 months earlier than last year’s event. For more information or to register, visit www.ausa.org.

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COMING IN FUTURE ISSUES

- Ordnance Corps Bicentennial
- Operational Risk Management
- Suppling the Forces While Rightsizing Ammunition Storage
- Moving Liquid Gold
- Developing Logistics and Property Accountability in Afghanistan
- Logistics and Analysis in the Science of War
- Rethinking the Last Tactical Mile
- U.S. Army Reserve Expeditionary Railway Center
- Boat to Plane to Foxhole: Seven Steps to Intermodal Operations