



JULY–AUGUST 2011

ARMY SUSTAINMENT

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THE 1ST SUSTAINMENT BRIGADE AND ARFORGEN

**CENTCOM's Theater Express Program
Financial Management for Contingency Operations
The 10th Sustainment Brigade's Exercise Positive Strike**

PB 700–11–04 Headquarters, Department of the Army
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Cover: All sustainment brigades face the challenge of identifying their role in a garrison environment during the train-ready and reset phases of the Army Force Generation cycle. The 1st Sustainment Brigade developed a sustainment operations center to improve its home-station support between deployments. The article beginning on page 6 describes how the brigade developed the sustainment operations center using the Army Enterprise Governance Model and how the center operated when the brigade deployed to Operation Iraqi Freedom 10–11. A related article beginning on page 34 looks at one aspect of that deployment: the use of airdrop to supply Soldiers widely dispersed across Afghanistan. The cover photo shows container delivery system bundles being dropped over Afghanistan.



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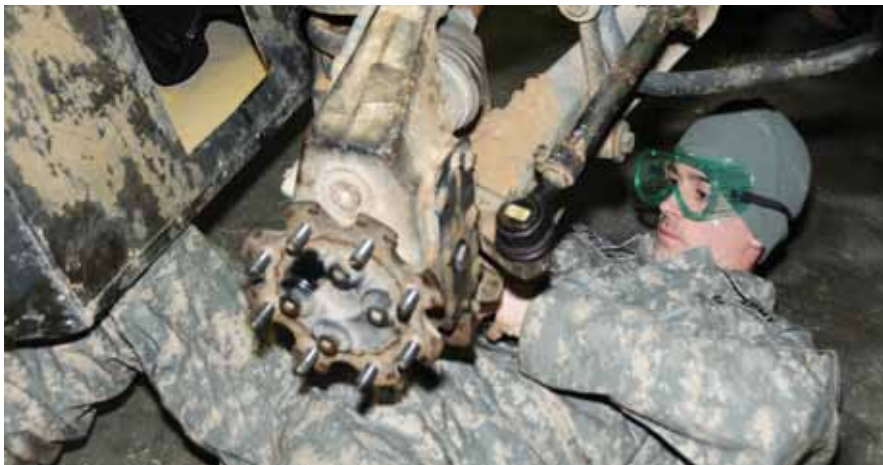
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The Army Logistics University: Developing Sustainment Leaders

BY MAJOR GENERAL JAMES L. HODGE

In July 2009, the Army Logistics University (ALU) was established to be the Army's premier developer of leaders in logistics, acquisition, and operations research and systems analysis (ORSA). This event was a key milestone in the ambitious effort to consolidate logistics professional military education (PME) from the three logistics branch schools—Quartermaster, Ordnance, and Transportation—with the base structure of the Army Logistics Management College (ALMC) at Fort Lee, Virginia.

For more than 50 years, ALMC served as the trainer and educator for multifunctional logistics, operational- and strategic-level logistics, acquisition, and ORSA. The vision for ALU was to add logistics PME to this long-established institutional base. As a result of this initiative, the bulk of logistics noncommissioned officer (NCO), warrant officer, and lieutenant education has been, or soon will be, consolidated at ALU.

The transformation of ALMC to ALU has brought with it an authorization for a member of the Senior Executive Service to serve as the university president. This upgrade in position is largely due to the significant increase in the university's mission. In fact, on 30 September of this year, the number of courses from the pre-transition ALMC base of approximately 50 will have increased to over 200 and the average daily number of students will have grown from 350 to 2,600.

To accommodate this growth, a world-class training facility, dedicated last November as Heiser Hall, was constructed adjacent to ALMC's existing facility, Bunker Hall, which itself received significant upgrades. The opening of Heiser Hall has increased the total number of classrooms in ALU to over 200, all of which feature state-of-the-art instructional technology. The adjacent Simulation Training Center and a 1,000-room lodging facility, currently under construction, round out ALU's Fort Lee campus.

The university is organized into three colleges, an academy, a student battalion, and a directorate to handle university operations and education. (See chart on page 69.)

The Logistics Leader College (LLC), located in Heiser Hall, provides officer education along with some functional courses. ALMC had taught the common core and multifunctional phases of the Combined Logistics Captains Career Course (CLC3) and sustainment precommand courses. To form LLC, the func-

tional phases of CLC3, the three logistics basic officer leader courses, and branch functional courses moved from the Quartermaster, Ordnance, and Transportation Schools. LLC has also consolidated most of the automated systems training across the university.

Warrant officer training from the three branch schools has been centralized in the Technical Logistics College in Bunker Hall. This college, in coordination with the branch schools, provides common core and technical logistics training through 20 warrant officer basic courses and 26 warrant officer advanced courses.

Similarly, the three logistics NCO academies have been consolidated into the Logistics NCO Academy in Heiser Hall. This academy provides wide-ranging instruction to prepare NCOs across 23 advanced leader courses and 13 senior leader courses.

The College of Professional and Continuing Education (CPCE), located in Bunker Hall, retains responsibility for the bulk of the civilian and military professional development courses that were once offered under ALMC. It provides a wide range of advanced logistics courses, such as the Joint Logistics Course, the new Interagency Logistics Course, and a host of acquisition and ORSA courses. In fact, I am a proud graduate of the 1985 ORSA MAC-1 Course! The acquisition courses include the new and highly sought-after Operational Contract Support Course and the Contracting Officer's Representative Course. CPCE also has a campus colocated with the University of Alabama in Huntsville, where it leverages the university's expertise and education opportunities in acquisition.

ALU works in close partnership with the logistics branch functional proponents, who retain proponent responsibilities for the branch training executed by ALU. The standup phase of this partnership will be completed with the arrival of staff and faculty from



Feeding the Force: The Spartan Field Kitchen

BY MAJOR SEAN P. KELLY AND CAPTAIN ROB CHAMPION

The 782d Brigade Support Battalion had to innovate to provide paratroopers with the same hot cooked meals and quality food services that were found at the larger forward operating bases.

When our brigade, the 4th Brigade Combat Team (BCT), 82d Airborne Division, deployed to Afghanistan as Task Force Fury in late August 2009, it became the first BCT to operate in that country as a security force assistance (SFA) brigade. The SFA concept was designed to replace the old military transition team and embedded training team concepts in order to better train the Afghan National Security Forces (ANSF) and improve their legitimacy in the eyes of the Afghan people.

SFA operations, by their very nature, require units to task organize and conduct decentralized operations at the platoon level and below. The platoon became the brigade's main unit of effort. The days of huge forward operating bases supporting multiple companies were over; combat outposts, checkpoints, and patrol bases were established to place the platoons with our ANSF counterparts.

The 4th BCT paratroopers lived and worked every day with the ANSF at these bases, partnering with regular Afghan police and Army units. The paratroopers also worked with specialized units like the Afghan Border Police, who have a unique mission along the remote southern and western borders of Afghanistan (comparable to the U.S. Border Patrol), and the Afghan National Civil Order Police, which is a specially trained unit that conducts civil order patrols, crisis response, and antiterrorism operations in urban areas.

Field Feeding Options

In the current task organization of the BCT, the forward support company (FSC) is designed to provide

a field-feeding capability at one or two locations, most often at the battalion level and traditionally no lower than the company level.

The primary cooking systems used by the FSC are the mobile kitchen trailer and the containerized kitchen, which are too large to maneuver into small combat outposts, checkpoints, and patrol bases. They are big, bulky, and designed to feed a company or more at a time. What Task Force Fury really needed was a platoon field-feeding capability—one that was agile and transportable, yet functional.

The 782d Brigade Support Battalion fabricated this Spartan field kitchen to provide meals to paratroopers in remote locations.



In most cases, the FSCs had one of each field-feeding system that they were able to employ downrange. Fortunately, when the 4th BCT arrived in Afghanistan, it fell in on some expeditionary tricon kitchen systems that were recently fielded to the Army as part of the brigade's theater-provided equipment inventory. This compact and versatile system consisted of two easily transportable tricon containers and a 60-kilowatt generator. The system provided our operational battalions with a more mobile field-feeding capability to supplement the organizational equipment that they already had on hand.

Although it is more mobile, like the mobile kitchen trailer, the expeditionary tricon kitchen system was designed to feed personnel from the company level up to the battalion level. It is capable of feeding 3 hot meals a day to approximately 300 personnel. Since the 4th BCT had an average of 30 and a maximum of 60 paratroopers at most Task Force Fury locations, and because of tight quarters with limited space available to set up full kitchens, the expeditionary tricon kitchen was not the best system for the paratroopers.

Organically, the BCT had seven mobile kitchen trailers and six containerized kitchens. It also fell in on eight expeditionary tricon systems. By June 2010, Task Force Fury paratroopers had pushed out to 55 different combat outposts, checkpoints, and patrol bases that were manned not only by organic units but also by supplemental SFA teams. It became obvious that there was not nearly enough theater-provided field-feeding equipment or organizational field-feeding equipment for every location. We had to do some out-of-the-box thinking and come up with a viable and realistic alternative.

Finding a Solution

Because of the agile nature of the BCT and the diverse living conditions facing its personnel, it became imperative for the support operations team to develop a plausible and executable plan to provide our paratroopers out on the front lines with hot cooked meals on an expedited timeline. Operational needs statements would help fill the void for the units replacing us in the future, but they would not solve our immediate problem, which was having enough field-feeding equipment at all of our locations. We simply had to develop something that could be emplaced almost immediately, and it had to be a capability that was functional and took up very little space.

The problem was supporting a brigade task force of over 5,700 Soldiers, Airmen, and Sailors (from the United States and the North Atlantic Treaty Organization) organized into 8 battalion task forces, 2 provincial reconstruction teams, and 5 security force advisory teams operating across 2 of Afghanistan's 5 regional commands within a 137,000-square-mile area



The Spartan field kitchen includes sinks and a drying rack for sanitizing dishes and utensils.

of operations (an area half the size of Texas). Disbursed among small and austere locations were the paratroopers.

Three times a week, the support operations section held a sustainment targeting meeting to pinpoint the systemic logistics issues that were identified throughout the previous week and that affected more than one of our battalion task forces. With a shortage of field-feeding equipment for our BCT and no plans to have contracted field-feeding support at these austere locations anytime soon, we brainstormed on how to feed the paratroopers down to the platoon level.

We needed to develop the perfect platoon field-feeding capability that was small enough to fit in our space-constrained outposts while not sacrificing capability. The solution needed to be able to feed up to 100 personnel and only require one military occupational specialty 92G (food service specialist) to operate.

We decided that the main components of this field kitchen were going to be the modern burner unit (MBU), M59 field range outfit, a griddle, power converters, and other associated components that were required to run this field-expedient kitchen. However, something was missing; we needed something to pull all these items together into a functional package. We needed to find a frame of some sort that could support the griddle and MBUs and keep them in place while presenting the appearance of a field kitchen.

As a group, we decided we needed to draw on the capabilities and expertise of the allied trades section of our 782d Brigade Support Battalion maintenance company. It was apparent that this effort would require not only bringing together parts of the support operations section but also employing the wealth of talent and operational experience that was located in our base companies. The Spartan field kitchen was the result of this process.

The Spartan Field Kitchen

Our master welders took the blueprints we provided and began fabricating what would become the structure of the Spartan field kitchen.

We called it the Spartan field kitchen in honor of our battalion mascot. The Spartans were sternly disciplined, rigorously simple, and austere; the moniker was fitting for the capability that was required to be designed for our forward and austere locations.

The initial requirement called for a frame capable of holding the main surface or griddle and the M59 field stove. The heating source that we used was the MBU, which was also required to be secured and held in place below the griddle. Until recently, the MBUs were class VII (major end items) nonexpendable items. Thanks to a change in the supply accountability code, they are now class IX (repair parts) items that are easy to requisition through our maintenance company's Standard Army Maintenance System-Enhanced.

With the MBUs on order, we began to emplace all of the cookware, which was class II (clothing and individual equipment), and the griddle, the power supply, and the 2-kilowatt generator. Both the griddle and the 2-kilowatt generator were class VII items that had to be ordered through our property book officer. While we waited for all of the components to come in through the supply system, the allied trades section began producing the Spartan field kitchen frame.

Using aluminum for the frame and a little paratrooper ingenuity, the Spartan field kitchen started to take shape. The mold for the initial frame structure was developed relatively quickly, leaving time for the allied trades section to make a few upgrades to the design of the Spartan field kitchen while we waited for the other components to be delivered to the supply support activity.

Field sanitation at the outlying combat outposts was a concern, so the team designed a few simple aluminum

additions to provide a few field sanitation capabilities. They designed a field sanitation sink with a sink stand and a serving and drying rack for all the cookware once it was cleaned. Within 30 days, we had designed the perfect platoon field-feeding capability, complete with power generation and a make-shift, but functional, field sanitation center.

We had the new field-feeding capability we needed. The new Spartan field kitchen was agile enough and small enough to fit into the combat outposts and was tailored to meet the needs of the smaller platoon-sized elements. In less than a month, the Spartan field kitchen was providing our paratroopers with quality hot meals.

By the end of July 2010, more than 25 Spartan field kitchens had been distributed throughout the operating area, primarily in Regional Command South around Kandahar City. The kitchen's first meals received rave reviews from the platoons on the ground. The Spartan field kitchen proved to be particularly valuable for the expeditionary checkpoints that Task Force Fury occupied in and around Kandahar City during the last 60 days of the deployment. It further demonstrated the critical need for a field-feeding capability for a platoon-sized headcount. The Spartan field kitchen proved to be a valuable weapon added to the Task Force Fury arsenal, thanks to its size, agility, and ease of setup.

This platoon-sized field-feeding concept single handedly allowed our forward paratroopers to receive the same hot and fresh chow that their fellow paratroopers were receiving at the larger forward operating bases. Little comforts like having a hot cooked meal mean a lot to the paratroopers out in the field, and those meals help them work efficiently alongside our Afghan allies to provide a secure, stable, and legitimate government to the citizens of Afghanistan.

MAJOR SEAN P. KELLY IS THE SUPPORT OPERATIONS OFFICER FOR THE 782D BRIGADE SUPPORT BATTALION, 4TH BRIGADE COMBAT TEAM, 82D AIRBORNE DIVISION. HE HAS A BACHELOR'S DEGREE IN CRIMINOLOGY FROM NORWICH UNIVERSITY AND IS A GRADUATE OF THE COMBINED LOGISTICS CAPTAINS CAREER COURSE, JOINT COURSE ON LOGISTICS, SUPPORT OPERATIONS COURSE, BASIC AND ADVANCED AIRBORNE SCHOOLS, PATHFINDER SCHOOL, AND AERIAL DELIVERY MANAGEMENT OFFICER COURSE.

CAPTAIN ROB CHAMPION IS A LOGISTICS OPERATIONS OFFICER IN THE 782D BRIGADE SUPPORT BATTALION, 4TH BRIGADE COMBAT TEAM, 82D AIRBORNE DIVISION, AND PREVIOUSLY SERVED AS A GROUND SUPPORT EQUIPMENT PLATOON LEADER AND EXECUTIVE OFFICER IN THE 782D BRIGADE SUPPORT BATTALION MAINTENANCE COMPANY. HE HAS A BACHELOR'S DEGREE IN CRIMINAL JUSTICE FROM EASTERN MICHIGAN UNIVERSITY AND IS A GRADUATE OF THE TRANSPORTATION OFFICER BASIC COURSE AND BASIC AIRBORNE SCHOOL.



A frontal view of the Spartan field kitchen sinks.

The 1st Sustainment Brigade Sustainment Operations Center: Meeting the Challenges of ARFORGEN

BY COLONEL FLEM B. "DONNIE" WALKER, JR.

SEVERAL COMMANDERS RECOMMENDED THE USE OF SUSTAINMENT BRIGADES AS AN OPERATIONS NUCLEUS FOR ARFORGEN RESET AND THE EARLY STAGES OF ARFORGEN TRAIN-READY, BUT THIS WOULD BE RESOURCE INTENSIVE. CONSOLIDATION OF AFSB, DOM, DOSS, MSE G-4, AND MSE G-4 PLAYERS IN A UNIT OPERATIONS CENTER, COMMANDED BY A DIVISION AND RUN BY A BRIGADE, WOULD CONTRIBUTE AND WOULD ALSO ASSIST WITH REGAINING CONTROL OF EXCESS, CONCURRENT WITH MODERNIZATION EFFORTS.¹

—DIVISION COMMANDER COMMENTS ON MODULARITY ISSUES,
5 JANUARY 2010

Every sustainment brigade commander undeniably struggles with the Army Force Generation (ARFORGEN) model. ARFORGEN is a brigade combat team (BCT)-centric concept that was designed to provide a structured progression of increased unit readiness over time, resulting in recurring periods of availability of trained, ready, and cohesive units. Sustainment brigades have been rotating through this model since their inception. Though there are varying viewpoints, one would be hard pressed to argue that, unlike BCTs, sustainment brigades do not have multiple and unique challenges associated with each stage of ARFORGEN.

Although each sustainment brigade is unique, based on the installation to which it is assigned and exactly where it might fall within the ARFORGEN cycle, one challenge is common to all sustainment brigades: identifying the brigade's role in a garrison environment.

Since transforming from division support commands and corps support groups, sustainment brigades have struggled with support relationships within the division and on installations. In the 1st Sustainment Brigade, we believe that we have mapped the future of home station support with our Fort Riley Sustainment Operations

Center (SOC). Among its benefits, the SOC concept provides the senior commander of the installation with visibility of deployable formations during the Reset and Train-Ready phases of ARFORGEN. The SOC also assists in gaining control of excess as described in the Division Commander's Modularity Report provided to the Chief of Staff of the Army in January 2010. And the SOC does much more.

Introspection

As an organization (at any level), we must constantly re-evaluate and inspect ourselves. In the process, we can then keep our organization relevant, properly trained, and on track with its required mission—or in the sustainer's case, relevant in providing efficient support to the warfighter. This is what I like to call a constant form of introspection.

So shortly after assuming command, I found myself asking the same question that other sustainment brigade commanders ask themselves that was alluded to above: What is the sustainment brigade's role here at Fort Riley in a garrison environment? The 1st Sustainment Brigade was somewhat unique because the brigade had just returned from a very successful

¹ Division Commander Comments on Modularity, 5 January 2010. This was a memorandum provided to the Chief of Staff of the Army signed by Lieutenant General Mark P. Hertling, Deputy Commanding General for Initial Military Training. The recommendations provided to the Chief of Staff were based on comments on modularity from 14 serving and former division commanders.



The 1st Sustainment Brigade's Sustainment Operations Center at Fort Riley, Kansas.

15-month deployment from Operation Iraqi Freedom in December 2008. I was taking command of the brigade and was looking at about a 15- to 16-month cycle before I was to deploy the brigade again in April 2010.

Several questions came to mind. Should I only focus on the Reset, Train-Ready, and Available phases of ARFORGEN for the special troops battalion (STB) and brigade staff? What about the other 15 unit identification codes (UICs) in my brigade that required mission command and certification but were in their own ARFORGEN cycles and all on different timelines than mine? And if I only focused on the STB and my brigade staff's road to war, who was controlling sustainment operations and support for the other 72 UICs, 4 brigades, and 3 brigade-sized training and readiness authority (TRA) units from other continental United States installations for which Fort Riley was responsible? As I grappled with all these questions, I determined that I needed to find out a way to do all three. Introspection was needed, and it was needed fast.

In February 2009, we formed a team to work with all the sustainment agencies across the installation to determine exactly what the concept of support was for Fort Riley tenant units as well as those units at other

installations for which our senior commander had TRA responsibilities. The results of our analysis revealed that our sustainment network was disjointed. We had numerous agencies (the directorate of logistics, G-4, an Army field support battalion [AFSBn], brigade support battalions [BSBs], and a combat sustainment support battalion) conducting many working groups and meetings, but there was no collaborative effort or synchronization. We lacked unity of effort and a central point of entry for all sustainment functions.

Collectively, we determined a way ahead through the development of a purpose, key tasks, and an end state that would later be approved by the 1st Infantry Division and Fort Riley senior commander, Major General Vincent Brooks. (See chart on page 8.)

As we analyzed our sustainment network and concept of support for Fort Riley, there were a few other goals that I felt were prudent to achieve in this process. First, I wanted to be able to use the SOC as a training venue for my staff as we traveled through our Road to War up until deployment. I directed that it be designed so that we could adopt a "train as we fight" mentality. Most specifically, I wanted the same mission command networks and systems, Army Battle Command System

(ABCS), and Standard Army Management Information Systems (STAMISs) incorporated in the SOC as would be used in both our expeditionary command post and the brigade's SOC down range.

The guidance I provided my staff was that our people should have the exact same workstation and common operating picture (COP) tools at Fort Riley that they would see in the certification exercise (CERT-TEX) and our Kuwait deployment in April 2010.

Second, Major General Brooks' intent was crystal clear to me. He wanted constant visibility on the status of his forces in terms of sustainment functions during the Reset and Train-Ready phases of ARFORGEN. I felt the best way to do this was to attack in terms of the Army Core Enterprise outputs and the Chief of Staff of the Army (CSA) imperatives.

If we could take this approach, we would succeed in assisting Fort Riley ARFORGEN units in obtaining a trained and ready status.

Using the Army Enterprise Governance Model

Three years ago, the Secretary of the Army and the CSA put the Army on a path to restore balance—a point where we could meet the demands on our force at a tempo that was sustainable for our all-volunteer Army. In 2009, the Army continued to make progress toward this goal and the CSA's imperatives, sustain our Soldiers and families, continue to prepare our Soldiers for success in the current conflict, reset them effectively when they returned, and continue to transform for an uncertain future.

Our Army was also directed to continue to improve how we acquire equipment, modernize our force, and conduct our business so that we remain good stewards of our Nation's resources. In response, the Army adopted what was called an "enterprise approach"—developing civilian and military leaders to take a collaborative, holistic view of Army objectives and resources to make better decisions for the Army. The Army Enterprise Governance Model demonstrates the CSA directive to empower a four-star headquarters oversight on the Army's four core enterprises:

- ❑ Human capital, led by the Army Training and Doctrine Command (TRADOC).



1st Infantry Division Commanding General's Intent



Purpose: Establish a Sustainment Operations Center to synchronize the 1st Infantry Division and Fort Riley, Kansas (including training and readiness authority [TRA] units), sustainment operations.

Key Tasks:

- a. Synchronize 1st Infantry Division and Fort Riley (including TRA units) sustainment network.
- b. Optimize 1st Infantry Division and Fort Riley ARFORGEN process (Reset and Train/Ready).
- c. Provide a common sustainment operating picture of 1st Infantry Division and Fort Riley (including TRA units); transparent when senior commander is forward.
- d. Conduct key sustainment leader engagements from outside the division.
- e. Improve sustainment battle rhythm.
- f. Certify installation sustainment readiness and continuity of operations.

End State: 1st Infantry Division and Fort Riley (including TRA units) are prepared to deploy/redeploy, Reset, and Train in accordance with ARFORGEN process.

Sustain to Victory!

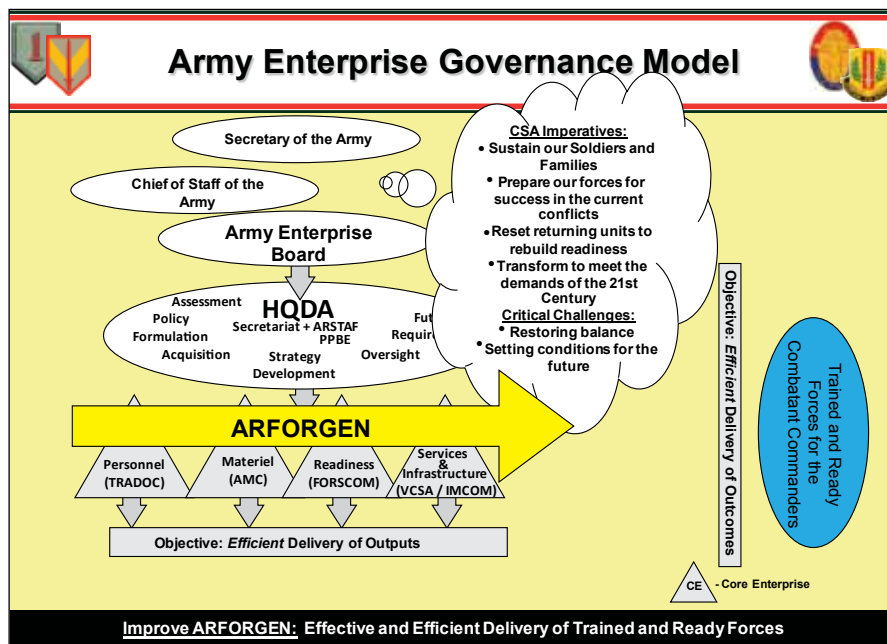
The purpose, key tasks, and end state for the 1st Sustainment Brigade's concept of support that was approved by the 1st Infantry Division and Fort Riley senior commander.

- ❑ Materiel, led by the Army Materiel Command (AMC).
- ❑ Readiness, led by the Army Forces Command (FORSCOM).
- ❑ Services and infrastructure, led by the Vice Chief of Staff of the Army and the Army Installation Management Command (IMCOM).

Each agency's objective is to provide efficient delivery of outputs from its core enterprise. The end state is that across the ARFORGEN spectrum, the combatant commander will receive trained and ready forces. (See chart at right.)

At Fort Riley, we looked very closely at the Enterprise Governance Model as we developed our concept of the SOC. In essence, it shaped our battle rhythm and design because our senior commander had the same desire as the supported combatant commander. The senior commander was responsible for providing those trained and ready forces and needed visibility on each of the enterprises as it applied to his formations as they cycled through ARFORGEN.

Thus, the overall SOC concept was born. As we conducted numerous in-process reviews and working groups with our Fort Riley sustainment partners to go over the senior commander's intent and task and the purpose of the Fort Riley SOC, we gained an appreciation for many other aspects that needed attention before we proceeded. For example, the rapid technological



The Army Enterprise Governance Model provides for four-star headquarters oversight of the Army's four core enterprises, with the goal of providing the combatant commander with trained and ready forces.

advances of our systems in recent years allow us to collect data and send it to anyone in minutes. Yet as logisticians, we are still making phone calls and sending emails while plugging numbers in spreadsheets to send our supported commanders outdated information.

We agreed that although our equipment has advanced, we remain stagnant in a time of spreadsheets and slide shows. Our systems could provide a consolidated snapshot of any piece of equipment, class of supply, or other area of interest within seconds. The technology was there; we just needed to capitalize on its use. Our ability to depict and access real-time data would be essential to improved sustainment readiness. Avoiding latency in our data would improve decisions related to each of the sustainment imperatives, which, as we all know, are essential to maintaining combat power. Much as the warfighter needs to shoot, move, and communicate, we needed to be able to coordinate, communicate, and respond. Working with near-real-time data offers any logistician a significant advantage. In the development of our SOC, we wanted to ensure that we took all of this into consideration.

Building the SOC

In February 2009, the brigade relocated to a new, modular \$6.9-million brigade headquarters facility. Although the contract had considered office furniture and conference tables and chairs, it did not cover video teleconferencing (VTC), automation, or operations center connectivity requirements. Though we had a brigade operations center (BOC) room, it was "gutted"

and empty when the brigade moved in.

Through the stellar work of SOC chief Major Charlie Fisher, deputy commander Lieutenant Colonel J.P. Silverstein, and S-6 communications officer Major Jason Coster, a concept was envisioned, developed, and created in just 3 months after gaining the senior commander's approval of our SOC concept. The contract cost was \$850,000 and required tireless hours of planning and coordination with the contractor in order to get the center fully operational in such a short period of time.

The final SOC design produced a 1,200-square-foot facility with a 800-square-foot raised floor, 4 levels of tiered seating (12 power outlets per tier), and 40 rollaway chairs and 40 stationery chairs (for a seating capacity of 80). It offers a total of 72 laptop computers, 3

LCD (liquid crystal display) projectors, 3 wall-mounted cameras, 4 60-inch plasma TV monitors, 1 Christie new shallow-depth video 8-cube display, 2 matrix switches (1 Non-Secure Internet Protocol Router Network [NIPR] and 1 Secure Internet Protocol Router Network [SIPR]), cable and satellite TV service, and a year-to-year renewable maintenance service contract. It also provides 32 commercial telephones (8 per tier), 40 NIPR drops, 40 SIPR drops, 1 Tactical Operations Center Network (TOCNET), and 4 crew access units.

In terms of ABCS and STAMISs, we incorporated two Command Post of the Future systems, two Battle Command Sustainment Support Systems (BCS3s), one Blue Force Tracker (BFT), one Standard Army Maintenance System-Enhanced, one Standard Army Ammunition System-Modernization, and one Standard Army Retail Supply System (SARSS) 2A.

We manned the SOC with a staff of 20 Soldiers from my support operations section, 1 SOC chief (a major), 1 S-6 noncommissioned officer (NCO), 1 battle captain, and 1 battle NCO. We also had stakeholders represented from the other sustainment agencies on post: the Mission Support Element (MSE) G-1, MSE G-3, MSE G-4, MSE G-8, directorate of logistics, AFSBn, and garrison. Other agencies, such as the installation transportation office (ITO), were virtually connected.

Establishing SOC Procedures

In the end, we applied the logistics imperatives of unity of effort, visibility, and rapid and precise response, incorporating them into a single cell—the

Army Core Enterprise	Army Lead Agency	1st Infantry Division Enterprise	1st Infantry Division Lead Agency
Human Capital	TRADOC	Manning	G-1/MSE G-1
Materiel	AMC	Equipping	AFSBn
Readiness	FORSCOM	SRR/MRR	G-4/MSE G-4
Services/Infrastructure	VCSA/IMCOM	Facilities	Garrison
N/A	N/A	PBAC	G-8/MSE G-8

The Army Enterprise Governance Model as addressed in terms of division-level enterprise outputs and responsible agents

SOC—managed by the SOC chief, with overall command and control provided by the sustainment brigade commander.

Several subfunctions of the sustainment warfighting function are represented in the SOC, including maintenance, supply (including ammunition), transportation, distribution, personnel services (human resources and financial management), field services, and health service support.

We also felt it was essential to include all of our sustainment stakeholders from garrison within the SOC, including the division of maintenance, division of supply and services, ITO, and department of public works. Having all of the sustainment operations colocated allows any supported unit to make a single phone call or send an email to the SOC group account to request a sustainment update. Information requested can range from the status of a part on order, the operational readiness rate of a unit, messages for help sent by Blue Force Tracker by units in a situational training exercise or field training exercise, the status of reset of a unit within ARFORGEN, issues with central issue facility menus or shortages, or authorized stockage list quantities of a particular brigade or aviation support battalion supply support activity.

Standing operating procedures (SOP) were developed by the SOC chief to clearly define roles and responsibilities, integrate priorities throughout the installation, and provide a common understanding of how the sustainment network should work at Fort Riley. The SOC SOP also established knowledge management rules of engagement so that our higher headquarters in the senior commander's joint operations center could see the same COP and data files we had established in the SOC. Supported ARFORGEN units also have complete access. The result was a unity of effort in sustainment that has enabled us to consolidate multiple meetings, establish sustainment and readiness priorities, and reduce redundancies.

There were two keys to the SOP. First, the SOC was the responsible agent and central repository that consolidated all information for all to access. Second,

representation from all commands as well as our supporting agencies would now come together once a week and have “buy in” with the overall process. Having the supporting commands and sustainment agencies present in a single session (both in the SOC and virtually via secure VTC) focused resources in the right areas of need and reduced hours of parallel and duplicate work on common issues.

SOC Operations

The goal of ARFORGEN is to deliver trained and ready forces for the combatant commander. As discussed previously, the Army Enterprise Governance Model dictates that TRADOC, AMC, FORSCOM, and IMCOM all focus on their respective core enterprise outputs as units cycle through ARFORGEN. We took those same roles and addressed them in terms that were consistent with division-level enterprise outputs and responsible agents.

We added a fifth output, the Program Budget Advisory Committee (PBAC), because we needed visibility on budgetary status and constraints to make effective decisions. (See chart above.)

The chart at right depicts the SOC operations concept. All of our brigades at Fort Riley (as denoted by the unit crests) are in various stages of ARFORGEN or are deployed. The idea behind the SOC is to have one central repository that monitors the status of each ARFORGEN unit based on the output of the five division-level enterprise outputs. The sustainment agencies are all represented in the SOC (shown in the interior of the green sprocket) and focus on the five enterprises (shown as the spokes of the green sprocket). They are also in constant communication and coordination with Department of the Army (DA) core enterprise leads through each phase of ARFORGEN (as depicted around the outside of the model arrow).

The SOC, in turn, feeds the information to the division headquarters joint operations center in order to give the senior commander constant situational awareness and visibility of his ARFORGEN units. This is done in several ways, such as through the weekly

commander's update assessment (CUA), weekly sustainment synchronization meeting, SOC Microsoft SharePoint software, Command Post of the Future, and BCS3. The joint operations center has the ability to see our COP and access our products 24 hours a day, 7 days a week.

The battle rhythm established in the SOC consolidated about 11 weekly meetings into 1 meeting a week, with all key players focused on a specific division-level enterprise of ARFORGEN. Subject-matter experts address issues immediately during a combined meeting, the sustainment synchronization meeting, focusing on one of the five enterprises weekly. Each session is chaired by the deputy commanding general-support (DCG-S), with the exception of the PBAC, which is chaired by the chief of staff. The sustainment brigade commander co-chairs all meetings and fills in for the DCG-S in his absence. (See chart on page 12.)

The meetings address any problems with staffing, equipping, budget resources, supply readiness, maintenance readiness, or facilities. This reduces time spent on followup phone calls and bringing supporting agencies up to speed on the situation. We found that we were able to consolidate numerous separate meetings, working groups, and boards into a specific meeting (sustainment synch) once a week. In turn, the SOC became the central repository of sustainment activities in support of ARFORGEN across post and was able to

unite many different units and agencies.

While monitoring day-to-day activities, the SOC can pull information on each unit's process through ARFORGEN cycles to avoid any potential issues and to bring systematic problems to the attention of a higher authority. The systems working in the SOC will tie together supporting agencies, units within the garrison of Fort Riley, and commercial partners. Garrison-wide visibility enables us to collectively work toward a common solution.

Using BCS3

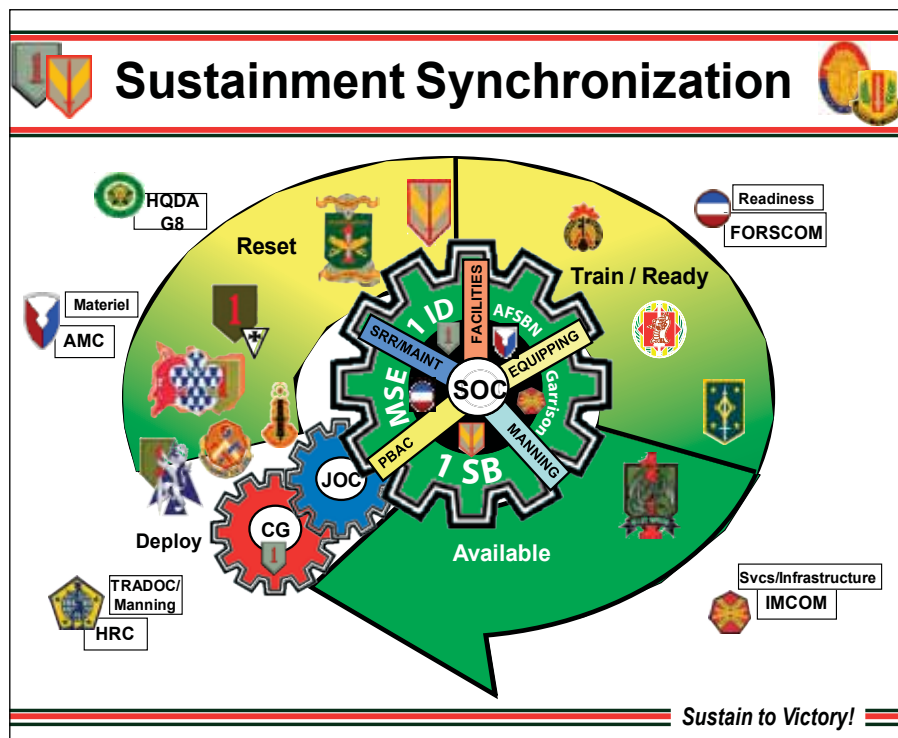
The SOC is also using BCS3 to track daily status of manning, equipping, and maintenance activity. For example, the SOC can see a unit's personnel strength and track shortages that affect a unit's ARFORGEN HQDA-mandated goals per cycle (80 percent at R+180 [180 days after redeployment], more than 90 percent at mission rehearsal exercise-45 days, etc.). All units property book (Property Book Unit Supply Enhanced) data are also readily available in BCS3 with established green, amber, and red color codes. Amber and red color codes denote R-3/R-4 LINS, indicating an effect on readiness that requires immediate attention due to impacts on a unit's Train-Ready cycle preparation and execution.

With the unit task organization (UTO) feature established, the SOC can also track the daily maintenance

status of pacing items or mission-critical equipment, regardless of its location or area of operations. Using the asset visibility option in BCS allows the operator to quickly find maintenance parts status beyond the status found in SARRS. Through collaboration with the BCS3 field representative and program manager, we are even working on a way to track the status of buildings on Fort Riley and the equipment within them using the Logistics Reporting Tool feature; that feature can be accessed from any standard workstation once it is installed.

Pulling from different systems and tying into a COP through the use of BCS3 has great potential to reduce man-hours. Consolidating all data into one COP (to which all have access and visibility) is powerful. Supported units coming together in a single meeting or session, with all the key sustainment players represented, eliminates redundant efforts to

The Sustainment Operations Center and its relationships with sustainment agencies, the five division-level enterprises, and the ARFORGEN process.



 Sustainment Synch Schedule 				
1 st Friday	2 nd Friday	3 rd Friday	4 th Friday	5 th Friday (Every 3 rd Month)
Focus: EQUIPPING (Lead – AFSBn) (Alt – MSE G4) Chair: DCG Key Members: G4/G1/G8/DIV SURG G3 FORCEMOD/MSE BCT XOs DOSS/DPW SEP BN XOs DA – G8 Rep FORSCOM Rep DLA/DOM MEDDAC DENTAC BLSTs AMCOM Rep TACOM Rep CECOM Rep DMT DRMS	Focus: MANNING (Lead – G1) (Alt – MSE G1) Chair: DCG Key Members: G4/G1/DIV SURG/ G8/MSE G4 G3 FORCEMOD/MSE BCT XOs DOSS/DPW AFSBn/DOM SEP BN XOs DA – G8 Rep FORSCOM Rep Replacement Cdr MEDDAC DENTAC HRC Rep FORSCOM Rep Contracting	Focus: PBAC (Lead – G8) (Alt – MSE G8) Chair: COS Key Members: DIV STAFF MSE AFSBn/DOM BCT XOs SEP BN XOs RM/Garrison/DOSS/ DPW MEDDAC DENTAC	Focus: SRR/MAINTENANCE (Lead – G4) (Alt – MSE G4) Chair: DCG Key Members: G4/G1/G8/DIV SURG BCT XOs/MSE DOL/DOSS/DPW SEP BN XOs DA – G8 Rep FORSCOM Rep DLA MEDDAC DENTAC AFSBn/BLSTs/DOM AMCOM Rep TACOM Rep CECOM Rep DMT DRMS	Focus: FACILITIES/ INSTALLATION LOG CONTINGENCY (Lead – DPW) (Alt – DPTMS Plans) Chair: DCG Key Members: Garrison Cdr G4/G1/G8/DIV SURG G3 FORCEMOD/MSE BCT XOs DOSS SEP BN XOs MEDDAC DENTAC AFSBn/DOM



Sustain to Victory!

The sustainment synchronization meeting focuses on one of the five enterprises each week.

solve similar issues facing multiple units. Having this standard repository with a shared foundation, the SOC is able to allow for rapid data analysis and transfer. A common data transfer point delivers a rapid and precise response, enhancing the efficiency of sustainment support to units traversing ARFORGEN.

Benefits of the SOC in Garrison

By consolidating sustainment operations in one location, end users are able to call a single number or go to the SOC portal or BCS3 and receive reliable information on all sustainment operations. This increases the efficiency of a unit. Commanders will have a clearer picture of when their unit is ready for training, certification, and deployment by having situational awareness of critical manning and equipping issues.

The 1st Sustainment Brigade has been successful in using the SOC to communicate and participate in battle update briefs with organic units deployed to forward theaters, allowing us to develop relationships with the relief in place/transfer of authority (RIP/TOA) unit several months before arriving.

The bottom line is that the 1st Sustainment Brigade fulfills all the logistics imperatives. The room is equipped to communicate through all the major ABCS and STAMISs that a deployable sustainment brigade must maintain and in which it must be proficient. This sustainment hub is a single point of contact for anyone to call for a logistics status. It is an operation center that mirrors facilities the unit uses in theater and mimics the area support mission while being in garrison.

The SOC can reach out to any unit's data anywhere in the world and provide the commander an update. We can communicate through the Command Post of the Future or VTC with anyone to monitor issues that our current RIP/TOA unit is experiencing. All of this allows the 1st Sustainment Brigade to quickly and efficiently anticipate the conceptual mission and sustainment operations while supporting the senior commander's mission of ensuring optimum output of ARFORGEN: trained and ready forces.

The Challenge: Enduring the SOC

Throughout the development of the SOC, we all knew that our major challenge would be to determine a way to “endure” the operation as the 1st Sustainment Brigade deployed on its own ARFORGEN cycle. As long as the brigade was

at home station, there was no doubt that the support operations office and STB modified table of organization and equipment (MTOE) was more than adequate to cover down on our center's design. So, how would we address the problem of allowing our SOC to endure and continue to operate at Fort Riley while the brigade deployed?

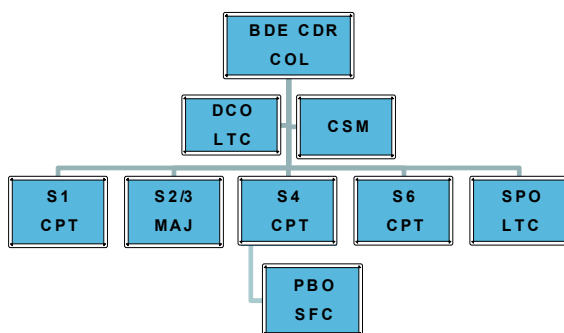
The 1st Sustainment Brigade was scheduled to deploy in support of Operation Iraqi Freedom 10–11 in April 2010 for a year-long rotation. During this time, the SOC would still need to continue to operate and monitor sustainment for all of Fort Riley and supported TRA units going through the ARFORGEN cycle.

In the past, a rear detachment would be established to command and control units on different deployment cycles and nondeployable Soldiers. However, in order to continue to use the SOC as planned, it had to be staffed by officers and NCOs with specific skill sets and expertise. The brigade could not afford to take these leaders and Soldiers “out of hide” based on the complexity of the mission for our April 2010 deployment. The brigade would need every MTOE position down range.

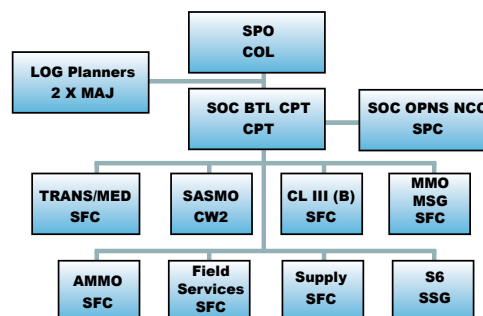
After looking at several courses of action (COAs), including tasking BSBs on post (which were on their own ARFORGEN cycles) to fill the gaps, we decided to go after a contingency operations–active duty operational support (CO–ADOS) solution. Based on an analysis of the Fort Riley garrison table of distribution and allowances (TDA), we were able to find a majority of the mission command and sustainment military



TF DURABLE



C2 Manning	
BDE CDR	90A
DCO	90A
CSM	92Z
S1	00B
S2/3	IMM
S4	90A
S6	25A
PBO	92Y
Total	8



SOC Manning	
SPO	90A
HQ	(BTL CPT) IMM (OPNS NCO) IMM
Planners	90A
Trans/ Med	88N/68W
SASMO	251A
Ammo	89B
S6	25B
Field Services	92S
Supply	92A
CL III (B)	92F
MMO	91X
Total	14

Sustain to Victory!

The composition of Task Force DURABLE.

occupational specialties we needed that were vacant. Using reservists under the CO-ADOS request process would allow us to provide the required mission command for the subordinate 1st Sustainment Brigade units at Fort Riley that were on ARFORGEN cycles of their own as well as for SOC sustainment operations for ARFORGEN Fort Riley tenant and TRA units.

We pursued the CO-ADOS option for both a mission command element of a 1st Sustainment Brigade provisional headquarters (8 slots) and to fill the minimum number positions to continue the SOC (14 slots).

Before the brigade deployed in April 2010, we had gained approval and filled 20 of the 22 positions we went after for the CO-ADOS solution. We called the package "TF [Task Force] DURABLE." Its

composition is shown in the chart above.

The key to gaining approval for the CO-ADOS COA at the DA level is ensuring that the following criteria are met:

- ☐ Justification must be an overseas contingency operation.
- ☐ The requesting unit must do its own recruiting to fill positions. (No unit mobilizations can be used to meet this requirement.)
- ☐ The requesting unit must find mobilization TDA slots, such as garrison mobilization TDA slots.
- ☐ A new structure cannot be created to meet this requirement.
- ☐ The Department of the Army Mobilization Processing System-Army (DAMPS-A) must be used to accomplish this support.²

² DAMPS-A is the Army portal application for requesting and processing active-duty tours for Reserve component Soldiers. It supports Reserve component Soldiers by enabling individuals to create, review, sign, and monitor their voluntary active-duty tour requests. The system also supports force requesters and Reserve component organizations by establishing a single process to electronically generate, process, and approve active-duty tour requests from the Soldier up to HQDA.

In our case, if we had not been able to use TDA slots from our garrison here at Fort Riley, we would not have been able to pursue the CO-ADOS option. This proved invaluable in allowing us to create TF DURABLE because HQDA would not have supported any initiative that requires new force structure under its current policy.

TF DURABLE provided a stop-gap solution in view of our deployment. But it is important to note that we encountered many problems associated with this process and that it was not an easy task to accomplish. For example, once we gained approval to move forward with the CO-ADOS option, which took months of coordination with FORSCOM and HQDA, we initiated advertisements through the Human Resources Command-St. Louis for recruitment. Applicants were reviewed and screened by the brigade command group, and those making the cut were interviewed either in person or telephonically. The applicants chosen were then processed through FORSCOM G-3 and sent to HQDA for final approval.

A good rule of thumb for the timeframe required for the CO-ADOS process is that it will take about 8 months from the time that a sustainment brigade wants the Soldier on the ground; 2 months for COA development and command approval, 3 months for selections, and 3 months for the production of orders. This is a very long and time-intensive process while you are trying to go through ARFORGEN and accomplish the many tasks associated with Reset, Train-Ready, and Certification. My lead planner, Major Ty Bentinck, and one of his staff officers, Captain Jostin Boyd, spent countless hours seeing this process through to completion.

Another drawback to this process is that a range of Soldiers show up who have no understanding of your SOC concept or battle rhythm and who have never met any of the other sustainment agencies or supported units across the organization. A RIP/TOA was planned between my SPO and the incoming TF DURABLE team, but it was not beneficial because of the long timeline associated with getting the TF DURABLE team to Fort Riley. (Many arrived within 2 weeks of our deployment.)

We were able to get a former BSB commander, Lieutenant Colonel Brian Tempest, to come on board and serve as our SOC chief several months before TF DURABLE arrived. This helped tremendously in providing some level of continuity as TF DURABLE arrived and got settled.

The Future

In the new modular Army, warfighters rely on supporting agencies and outside units to continue to run sustainment operations while deployed. Although the CO-ADOS solution (using TF DURABLE) worked to

some degree for the 1st Sustainment Brigade while it deployed to Kuwait, CO-ADOS is not the answer. This is because all installations do not have the force structure to support it, as was the case at Fort Riley.

The sustainment brigade MTOEs of the future need to incorporate force structure to continue sustainment operations on the installations at which they are stationed. Much like the early-entry and main-entry element division of the sustainment brigade MTOE is now, an additional section should be incorporated to build force structure to support rear operations when the sustainment brigade deploys. This would support the mission command of sustainment brigade battalions, companies, platoons, and detachments in various stages of ARFORGEN and endure SOC operations for the installation.

The way ahead for the 1st Sustainment Brigade SOC is constantly maturing. Our concept is challenging systems such as BCS3 to provide additional capabilities. Currently, the Army Combined Arms Support Command (CASCOC) does not have a program of instruction or method of instruction on how a sustainment brigade provides area support in garrison.

We believe that the 1st Sustainment Brigade has taken steps to develop a template for how area support can work in garrison. By working with all local sustainment agencies and providing a central location and repository for commanders to receive sustainment support, the 1st Sustainment Brigade SOC concept has made the sustainment brigade relevant in a garrison environment. We have moved in the right direction and made great progress in answering the question, "What is the sustainment brigade's role in a garrison environment?"

Supporting agencies are sharing with units, units are sharing ideas, and commanders are able to come to a single point for sustainment updates. In a mere 5 months, the SOC went from an idea to a fully functioning operations center ingrained within the garrison. Clearly, a requirement was there. By designing the SOC, the 1st Sustainment Brigade's Soldiers are able to train as they fight while providing a real-world service to the installation where they reside.

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The First 100 Days: A Story of Sustainment

BY LIEUTENANT COLONEL DAVID F. JOLLY

The 184th Expeditionary Sustainment Command (ESC), an Army National Guard unit from Laurel and Hattiesburg, Mississippi, assumed responsibility for all sustainment operations in support of Operation Enduring Freedom in Afghanistan from the 135th ESC, an Alabama Army National Guard unit, on 17 October 2010. Since then, the 184th ESC and its subordinate units have provided support for all coalition forces in Afghanistan.

On a daily basis, the 184th ESC and its subordinate units are responsible for funding the meals of more than 100,000 personnel. Each month, their contracted vehicles travel an average of 23,570 miles per day, their contracted aircraft fly an average of 23,700 passengers, and they process transactions worth an average of \$181 million.

On 24 January 2011, the 184th ESC marked its 100th day as the headquarters element for Joint Sustainment Command-Afghanistan (JSC-A). In the first 100 days, JSC-A units—

- Reviewed and approved \$1.2 billion in military contracts.
- Delivered more than 126 million gallons of fuel.
- Provided 25.6 million meals.
- Distributed 7.6 million pounds of ammunition.
- Delivered more than 17 million pounds of mail.
- Authorized 2.4 million miles of travel by contracted host-nation trucks.
- Managed more than 19,000 bed spaces daily.
- Airdropped 5,400 bundles of critical supplies to remote combat bases.
- Provided 1,925 legal services for servicemembers.
- Conducted 1,848 logistics convoys.

“All servicemembers involved in the operational sustainment of logistics continue to perform above expectations in this difficult and austere environment,” said Brigadier General Philip R. Fisher, the JSC-A commanding general. “The work they do here is critical to mission success.”

“The logistics fight in Afghanistan is without a doubt the most challenging job we’ve ever been tasked with,” said Colonel Craig M. Weaver, the JSC-A support operations officer. “[To say that] Afghanistan is not Iraq is an understatement. The dynamics of an ever-changing battlefield, limited lines of communications, and the lack of a staging base (such as Kuwait) requires a support operations staff that must quickly assess the



Joint Sustainment Command-Afghanistan Soldiers conduct a convoy in southern Afghanistan to relocate equipment between Tarin Kowt and Kandahar. (Photo by 1LT Steven P. Haggerty, 1225th CSSB)

situation and make sound decisions to ensure uninterrupted sustainment flow.”

Colonel Weaver credits strong staff relationships with the 184th ESC’s strategic partners—the 1st Theater Support Command, U.S. Forces-Afghanistan, the 101st and 43d Sustainment Brigades, the 401st Army Field Sustainment Brigade, the 313th Joint Movement Control Battalion, the 145th Theater Transportation Opening Element, and the 643d Regional Support Group—with ensuring that the warfighters have the supplies to conduct combat operations and defeat the insurgents on the battlefield.

LIEUTENANT COLONEL DAVID F. JOLLY IS THE PUBLIC AFFAIRS OFFICER FOR THE 184TH EXPEDITIONARY SUSTAINMENT COMMAND, MISSISSIPPI ARMY NATIONAL GUARD. HE HOLDS A B.S. DEGREE IN SECONDARY EDUCATION FROM THE UNIVERSITY OF SOUTHERN MISSISSIPPI AND AN M.B.A. DEGREE FROM WILLIAM CAREY UNIVERSITY. HE IS A GRADUATE OF THE ENGINEER OFFICER BASIC AND ADVANCED COURSES, COMBINED ARMS AND SERVICES STAFF SCHOOL, ARMY COMMAND AND GENERAL STAFF COLLEGE, PUBLIC AFFAIRS QUALIFICATION COURSE, FINANCE OFFICER QUALIFICATION COURSE, AND HUMAN RESOURCES QUALIFICATION COURSE.



Elements of the Profession of Arms and Their Impact on the Military Logistician

BY MAJOR ERIC A. MCCOY

Is military service a profession or an occupation? Is there really a difference? The author argues that there is and that Soldiers definitely are members of a profession.

Following the Vietnam War, the Army suffered from an evident depression, particularly within the officer corps and noncommissioned officer corps, that led to a revamping of our professional institutions and doctrine. Observing this process, the late sociologist Charles Moskos theorized that the decline resulted from the Army seeming to develop the characteristics of a civilian occupation rather than the profession it had always considered itself to be.

The basic distinction between these two conceptions of the military lies in their relationship to, and legitimization by, American society. Moskos noted that society legitimizes an institution “in terms of norms and values, a purpose transcending individual self-interest in favor of a presumed higher good. Members of a professional institution are often seen as following a calling captured in words like duty, honor, country.” Conversely, an occupational model receives its legitimacy in terms of the marketplace, where supply and demand are paramount and self-interest takes priority over communal interests.¹

A generation later, we find similarities as we assess the impacts of a decade of persistent conflict on the all-volunteer Army. Our Army’s senior leaders believe that, in adapting to the demands of combat in Iraq and Afghanistan as well as to the new strategic realities of the 21st century, we have been so busy that we have not consistently thought through how these challenges have affected the Army as a profession of arms.

The leaders therefore have launched a campaign designed for reflecting on and assessing how well we are policing ourselves both on the battlefield and in garrison, our ability to care for Soldiers and their families, and the broad development of Army professionals.

This campaign includes an assessment of our personnel management systems to ensure that they are focusing and capitalizing on the exceptional talents of our junior professionals as well as broadening their skills for future service. The campaign is also assessing our civil-military relations as we interact with and support the Nation and its elected and appointed officials.²

The authors of the Army white paper titled “Army: Profession of Arms” state that an “American Professional Soldier is an expert, a volunteer certified in the Profession of Arms, bonded with comrades in a shared identity and culture of sacrifice and service to the Nation and the Constitution, who adheres to the highest ethical standards and is a steward of the future of the profession.”

In support of this campaign, the purpose of this essay is to offer an opinion on the common definition of a profession, recommend essential components of a profession that are recognized by the military and other professions, and discuss how these components affect the officers, noncommissioned officer, Soldiers, and civilians of the Logistics Corps.

Why Is the Military a Profession?

Much of the initial discussion involving this campaign focuses on whether or not military service is a profession. Merriam-Webster’s Dictionary defines a profession as “a calling requiring specialized knowledge and often long and intensive academic preparation; a principal calling, vocation, or employment; or the whole body of persons engaged in a calling.” This differs from the dictionary’s definition of an occupation, which is “the principal business of one’s life: [a] vocation.”

¹ Charles C. Moskos, “Institutional and Occupational Trends in Armed Forces,” in Charles C. Moskos and Frank R. Wood (eds.), *The Military: More Than Just A Job?*, Pergamon-Brassey’s International Defense Publishers, London, 1998, p. 16.

² “Army: Profession of Arms,” Center for the Army Profession and Ethic, U.S. Army Training and Doctrine Command, October 2010.

Based on the subtle differences between the definitions of a profession and an occupation, I believe that the dispute regarding the appropriateness of defining the military as a profession revolves around varying levels of academic preparation based on military occupational specialty and rank. The Profession of Arms Campaign glossary defines a profession as “an organization for producing uniquely expert work, not routine or repetitive work.”

Furthermore, I believe that the scope of responsibility involved in executing our duties and serving our client under the Constitution, namely the people of the United States of America, requires extensive preparation and training, which gives military service in the United States the aspects of a profession.

Common agreement on what is and is not a profession is rare. The debate about what constitutes a professional and professionalism has a long history and has generated a large body of material. During medieval times, there were only three professions, which were called “the learned professions.” These learned professions were medicine, law, and the clergy. As professionals, doctors, lawyers, and priests were licensed to carry out socially useful tasks on behalf of the state or the church. Doctors were allowed to intervene in individuals’ bodies; lawyers were allowed to regulate the conflicts of rights and obligations among individuals and groups; and priests were allowed to intercede for parishioners to foster their prospects for righteous living and future salvation. The powers to intervene, regulate, and intercede made these jobs “professional” rather than “occupational.”

Despite debate over whether or not military service should be constituted as a profession, a majority of the American public still views military service as such. According to the late political scientist Samuel Huntington, military professional status implies a unique and socially useful expertise (in this case, the management of violence), a moral responsibility to provide and use that expertise on behalf of a society that cannot defend itself, and an organic unity and consciousness of itself as a group apart from laymen.³

Moreover, historian Allan Millett emphasizes “a life-long calling by the practitioners” and notes that “professions are organized to control performance standards and recruitment,” thus using their monopoly of expertise for self-policing of the profession.⁴ This limited autonomy is another distinct characteristic of a profession versus an occupation.

Most professions serve individual clients. However, in its service to the United States of America, the military serves a collective client. Our actions have a broad

impact in both extent and consequences, whether it is the recovery of a community devastated by a natural disaster, support to a friendly nation’s security efforts, the defeat of enemy forces, or the defense of our homeland. “Therefore, failure of the military profession would have catastrophic consequences.”⁵

Professional Education and Certification

Professionals generally begin their professional lives by completing a higher education program in their chosen fields (law, medicine, engineering, and so on). Professional military education (PME) provides the Army’s corollary to civilian education programs and complements the training of military officers who have a corresponding civilian profession. PME provides progressive levels of military education that prepare military officers for leadership. It includes various basic-level courses for new and junior officers, command and staff colleges for mid-level officers, and war colleges for senior officers. Similar levels of PME are in place for warrant officers, noncommissioned officers, and Department of the Army civilians.

Although critics would argue that the Army does not have a system to certify its personnel as professionals, I contend that we have, and have had, systems in place to confirm proficiency. Infantrymen and medics are certified as professionals when they obtain the Expert Infantryman Badge and the Expert Field Medical Badge. A generation ago, the Army used a tool called the Skill Qualification Test (SQT) that every Soldier had to take and pass, along with required appropriate levels of PME for officers and noncommissioned officers. All Soldiers, regardless of rank, also had to both pass the Army Physical Fitness Test and qualify with their basic weapon in order to be promoted.

Although the SQT was not perfect, it was an effective means to ensure that Soldiers maintained high professional standards. Some would argue that when the SQT was discontinued in the 1990s, we failed to replace it with a similar system to ensure that we maintained technical proficiency within the force.

Department of the Army civilians, based on their career field, may or may not have to meet certification requirements; such requirements depend on their trade, such as firefighting, healthcare, law, explosive ordnance disposal, acquisition, or engineering. As most direct civilian counterparts to military specialties typically have certification and education standards, we should be able to integrate those standards into our base standards for Soldier qualification. Periodic testing for proficiency will aid Army leaders in ensuring continuous improvement, pride, and a lifetime of

³ Samuel P. Huntington, *The Soldier and the State: The Theory and Politics of Civil-Military Relations*, Belknap Press, Boston, 1957, pp. 11–18.

⁴ Allan R. Millett, “Military Professionalism and Officership in America,” Mershon Center Briefing Paper No. 2, Ohio State University, May 1977, p. 3.

⁵ Field Manual 1, The Army, Department of the Army, 2005.

learning while enhancing the reputation of the Army to the American people, our Soldiers, civilians, and their families.⁶

Professional Skills Development

For most professions, education alone is not sufficient to develop full professional capabilities. Neophyte professionals need practice in applying their knowledge before they are prepared to take primary responsibility for performing work in their fields. For example, physicians have a 3-year residency, certified public accountants must work 1 year for a board-approved organization before receiving their licenses, and professional engineers must have at least 4 years of work experience for certification. Requiring some kind of apprenticeship ensures that people who enter a profession have practical experience performing work at a satisfactory level of competence.⁷ Since they have no formal apprenticeship, Soldiers use a combination of PME, self-development, and unit training to obtain and maintain proficiency in their skill sets.

A key aspect of professionalism is specialized knowledge. This is not specialized knowledge simply obtained from a book. It is an accumulated and ordered knowledge, built up over time by the experience, analysis, and insight of predecessors in the field. It is knowledge that penetrates to the root of the matter and gives its possessor an understanding of not only how things are but also why they are that way. It is also hard-won knowledge that requires time and effort to obtain; therefore, it is knowledge that many people cannot achieve simply because they desire to have it.

The professional is the opposite of the “self-made man.” The professional is a man or woman who is deeply indebted to others from the start. Principal among these others are predecessors in the field who have discovered and synthesized specialized knowledge and who have passed it on.⁸ Furthermore, the professional is indebted to the community—in our case, the Armed Forces as an institution.

The military professional is therefore obligated to use his knowledge well. Not only is using his knowledge necessary so the Soldier can provide service to his client, namely the people of the United States; it also is partial compensation for the sacrifices of our predecessors who have made our professional education possible. The Soldier also must add to the accumulated knowledge where possible, correcting it, refining it,

and generally increasing its depth and breadth.

Such knowledge is powerful, and like many powerful things, it can produce great benefits if used well and great evils if used badly. For this reason, professionals have generally been careful throughout history to share their knowledge only with those personally committed to using it well and to dismiss from their company those who evidence deep flaws in character. This is certainly true of the profession of arms, which in various ways (though sometimes unfairly or unwisely) aggressively filters out candidates for commission or promotion that it considers unworthy, regardless of their mastery of military knowledge.⁹

Ethics and the Military Profession

Each profession has a code of ethics to ensure that its practitioners behave responsibly. This code states not just what its practitioners actually do but what they should do. Professionals can be ejected from their professional societies or lose their licenses to practice for violating their codes of ethics. Adherence to a recognized code of conduct helps professionals feel that they belong to a well-regarded community, and enforcement of ethics standards helps to maintain a minimum level of conduct.¹⁰

The Army white paper on the profession of arms observes that while our professional ethic is built on trust with the American people and between our civilian leaders and junior Soldiers, that ethic cannot be found in any single document. Part of the Profession of Arms Campaign’s intent is to correct this doctrinal omission.

In the civilian sector, professional training tends to be in the direction of technical thinking, which means that it tends to emphasize heavily the development of particular skill sets as well as the ability to estimate costs and outcomes from proposed courses of action. However crucial these skills are, it is a mistake of the first magnitude to believe that technical thinking is the whole of practical thinking or that it is the essence of professionalism. Instead, it is an indispensable first step that must be completed by ethical thinking.¹¹

However, technical skills without moral insight are directionless and therefore dangerous. The amoral professional, to say nothing of the immoral professional, is a mercenary, and I argue is not a professional at all; rather, he is a technician, valued for his skill but not for his judgment. The increasing demands in all professional areas for technical competence place

⁶ Major Paul Edwards, blog entry, January 2011, “Keeping the Profession of Arms Professional.” <http://tradoelive.dodlive.mil/2011/02/01/keeping-the-profession-of-arms-professional/>.

⁷ Robert G. Kennedy, “Why Military Officers Must Have Training in Ethics,” 2000, International Society for Military Ethics, <http://isme.tamu.edu/JSCOPE00/Kennedy00.html>.

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

¹¹ Ibid.

considerable pressure on formation programs. Technical training tends to crowd less immediately useful subjects out of the limited amount of time available. We observe this in medical schools, law schools, business schools, and probably in our service academies as well.¹² As a result, we must work to balance the technical training (or science of warfare) with the proper moral foundation (or art of leadership).

Robert G. Kennedy argues that the essence of professional excellence lies in the integrated ability to achieve and protect concrete human goods. Each professional area serves a distinct good or set of goods that contribute to the common good of a community or society. For example, the physician seeks the human good of life and health. Sound professional judgment will permit the physician to identify threats to health and to determine how best to respond to those threats. In making this determination, he must have in mind the health of the whole patient and not merely the proper functioning of this organ or that system. The physician, in other words, must be able to judge correctly that some treatments, while effective in dealing with certain symptoms, may aggravate others and leave the patient in poorer health than before treatment began.¹³

Similarly, the military professional must be able to judge, for example, that certain tactical choices, while quite effective in accomplishing a particular mission, might not really further the cause of restoring a just peace. A technician sees the immediate objective; the professional must be mindful of the final goal. In order to think in this way—in order to be fully practical—the military professional (like any other professional) must be educated in ethics, which moves his attention beyond efficiency and effectiveness to real issues of good and bad.¹⁴ A democracy deserves no less than this from its military officers. As such, codifying and documenting our professional Army ethic is an essential component of this Profession of Arms Campaign.

Professionalism

A final aspect that distinguishes the American profession of arms is the professionalism of its officers and noncommissioned officers. Both are given considerable authority early in their careers. Both are expected to exercise initiative to identify and resolve unforeseen circumstances. Both are developed through a series of schools that equip them for greater responsibilities as they are promoted. This combination of professional development and experience in making decisions within general guidelines (rather than rigid rules)

develops flexible and self-aware leaders. It has resulted in an agile institution able to conduct decentralized operations and obtain extraordinary results.¹⁵

Professions require their members to keep their professional education current. Ongoing professional education maintains or improves members' knowledge and skills after they begin professional practice. Professional development requirements tend to be strongest in professions where a body of technical knowledge is rapidly changing. Medicine is perhaps the most notable example because of the constant improvements in drugs, therapies, medical equipment, and diagnosis and treatment procedures.

After a professional's initial education and skills development are complete, this additional education requirement helps to ensure that a professional maintains a minimum competency throughout his career.

If we as military logisticians look at ourselves as an important component of the profession of arms, we must continue to maintain our personal and professional competencies. Creating an individual development plan, supporting timely subordinate attendance at PME schooling, and contributing to maintaining a body of knowledge (such as writing professionally or providing feedback to the institutional Army) are all methods of maintaining competency.

Logistics-specific development opportunities, such as licensing in a trade, participation in training with industry programs, and participation in professional organizations such as SOLE—the International Society of Logistics, allow Army sustainers to obtain and integrate knowledge from other supply-chain practitioners into Army doctrine, tactics, techniques, and procedures where applicable. Ultimately, this supports a ready and relevant Logistics Corps that is technically astute, tactically proficient, and ready for the challenges of an uncertain future.

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¹² Ibid.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Field Manual 1.

Bridging the Gap: USAMMA Support Moves Closer to the Customer

BY MAJOR MICHAEL S. WHIDDON

To ensure Soldiers receive the medical support that they need, the U.S. Army Medical Materiel Agency has developed a program to provide medical liaisons to units with medical capabilities.

The intent of the U.S. Army Medical Materiel Agency's (USAMMA's) medical liaison officer (M-LNO) program is to ensure that operational units maintain an increased state of readiness regardless of where they are in the Army Force Generation (ARFORGEN) cycle. This program allows USAMMA to be more responsive and flexible while quickly addressing customer concerns and requests. The M-LNO program's current structure within the continental United States is meeting customer expectations. However, an M-LNO's ability to provide the same level of support to customers throughout a deployment is questionable. This article provides an overview and analysis of the current M-LNO program and a recommendation for expanding the program to benefit intratheater customers.

USAMMA M-LNO Program Overview

As the Army continues to evolve structurally and operationally, so does the concept of support that enables its success. In support of the Army Campaign Plan, the Army Medical Department and USAMMA continue to seek greater avenues of streamlined support for customers throughout the force. Army units focus on future missions as early as possible in the ARFORGEN process, which results in units that are task organized, equipped, manned, and trained to become an expeditionary force package.

In January 2009, in response to a tremendous increase in workload and the implementation of the ARFORGEN concept, USAMMA embedded M-LNOs in the 404th Army Field Support Brigade (AFSB) at Fort Lewis, Washington, the 406th AFSB at Fort Bragg, North Carolina, and the 407th AFSB at Fort Hood, Texas.

The mission of the M-LNO is to provide early detection and resolution of medical logistics problems affecting unit and materiel readiness. To fulfill their mission of providing medical materiel life-cycle management, the M-LNOs assist stakeholders and customers, including Active Army, Army National Guard,

and Army Reserve medical units, in their immediate geographical areas.

M-LNOs coordinate with the supported commands to make logistics assessments and determine historical trends and the current status in order to provide preventive and corrective measures for improving unit and command readiness. They also provide before, during, and after deployment support for installation training exercises, combat training center rotations, and full-spectrum operations to all units with home-station medical assets. The M-LNO is the commander's single point of contact for medical materiel life-cycle management and equipment support.

The value of the USAMMA M-LNO program is evident in its ability to meet customer expectations nearly seamlessly while garnering consistent customer feedback. An internal review documented the efforts of M-LNOs as noted both inside and outside of the medical community. These recognitions included special verbal commendations at the 2009 Army Forces Command Combat Support Hospital Commander's Conference and the 2009 Army Materiel Command (AMC) Reset Conference.

In addition to these accolades, the program has also received positive customer feedback, such as an email sent by Major Joseph K. Weaver in February 2010 that stated, "Medical LNOs are invaluable for customer service and assistance during fieldings. The U.S. Army Special Operations Command relies on M-LNOs to: coordinate with USAMMA for required delivery dates, arrival, and staging of medical sets, kits, and outfits, as well as stand-alone equipment prior to Materiel Fielding Team (MFT) arrival."

As a result of this and many similar comments, USAMMA expanded the program and placed M-LNOs with the 1st Battalion, 407th Army Field Support Brigade, at Fort Carson, Colorado, and the Army Field Support Battalion Fort Campbell, 406th AFSB.

M-LNO Program Analysis and Results

Since January 2009, USAMMA M-LNOs have

Ammunition LARs Are a Great Training Resource

I read your article titled “Training Ammunition Supply Soldiers While Deployed,” by Captain Theodore L. Zagraniski and Chief Warrant Officer 2 Gary N. Carr (May–June 2011 issue), with great interest. This particular topic is very high on my list of problems encountered while in theater.

I wanted to point out to you and your readers that a great source for training exists in the form of ammunition logistics assistance representatives (LARs). These

people are versed in all facets of munitions handling and safety, not to mention accounting and storage. All munitions handlers, and specifically [military occupational specialty] 89B ammunition specialists, could benefit from their assistance.

Please feel free to let your readers know about us. It would be a great help in getting the message out. Thank you for your support.

**WILLIS “ED” KOPIC
MUNITIONS LAR
FORT KNOX, KENTUCKY**

continued to work diligently to become the operating forces’ synchronization point for ARFORGEN requirements. An analysis of the program’s workload during 2009 revealed that each M–LNO provided technical expertise and support to an average of 12, and at times as many as 20, customers per month. A more in-depth look at a typical weekly workload revealed that each M–LNO spends approximately 52 percent of his time providing direct customer assistance, 25 percent of his time conducting customer and product research, and the remaining 23 percent of his time attending left-behind equipment and reset meetings and performing administrative functions.

Having M–LNOs on site allows for increased accuracy in identifying medical materiel and equipment needs. Their dedicated efforts and ability to serve as synchronization points of contact at the unit level assisted USAMMA in executing 528 medical materiel fieldings and direct-ship missions in fiscal year 2009—a 117-percent increase in workload from the previous fiscal year.

The effort of each M–LNO is effective and valued at all levels of command. During a recent discussion, 406th AFSB commander Colonel Kenneth C. Dyer stated, “I fully concur with the value of the USAMMA M–LNO program. It provides customer units [with] an on-location point of contact to address USAMMA equities. I am convinced that we have encountered less Reset friction for medical specific systems as a result of [the M–LNO’s] work in the 406th.”

Expanding M–LNO Use

As USAMMA continues to evaluate the M–LNO program, further expansion is the next logical step. A recommendation to place additional M–LNOs with the 401st AFSB at Joint Base Balad, Iraq, and the 402d AFSB at Bagram Airfield, Afghanistan, in order to assist with theater drawdown, expansion, theater-provided equipment, and ARFORGEN is currently being considered.

In a 2004 in-office publication, General Paul J. Kern, then commander of the Army Materiel Command,

provided some valuable insight into the importance of having a logistics-forward mindset, stating, “Logistics provides the physical base for both operational readiness and combat effectiveness. Logistics is inseparable from combat and must march in lock-step with strategic, tactical, and operational planning and considerations. Logistics is not sequential, but parallel—and must be harmonized and integrated with combat planning and operations.”

Placing M–LNOs at these locations does exactly what General Kern suggests. This concept projects the presence of the medical materiel enterprise forward and provides an on-the-ground point of contact for medical materiel life-cycle management assistance and problem resolution in a manner similar to the Army Materiel Command’s Logistics Assistance Program.

The USAMMA M–LNO program is a sustainment effort moving in the right direction. The attributes of the program ensure that units maintain an increased state of readiness regardless of where they are in the ARFORGEN cycle. It provides USAMMA with the ability to provide increased responsiveness and flexibility while reacting quickly to customer concerns and requests in a nearly seamless manner. If approved, further expansion of this program will benefit the Army Medical Department’s continued efforts to provide world-class health-care support to the warfighter.

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Increasing the Use of the Battle Command Sustainment Support System

BY MAJOR DONALD C. SANTILLO

The Battle Command Sustainment Support System (BCS3) has not been used to the capacity its developers intended. Improvements to the system and command emphasis can make BCS3 invaluable to deployed units.

Since its inception, the Battle Command Sustainment Support System (BCS3) has had to overcome several obstacles on its way to becoming the logistics component of the Army Battle Command System (ABCS). Despite the millions of dollars spent on research and development, fielding, training, service, and support for BCS3, most units still use it only on a limited basis. Recent updates to BCS3 software can help curb negative attitudes toward the system and go a long way toward increasing its use across the logistics community.

Issues Causing Low BCS3 Use

Although BCS3 offers tremendous capability for logisticians at all levels of war, including in the joint environment, numerous issues have caused its low usage by units in the field. Part of the problem is that BCS3 was a product of the Joint Deployment Logistics Model. Incorporating BCS3 with “live” data created data integrity issues because information from numerous sources was stored in two separate unsynchronized databases.

Before the recent updates, the look and feel of BCS3 software was quite possibly the biggest issue causing low usage of the system. The user interface was not intuitive or user friendly and had cluttered menus. The biggest drawback was that BCS3 did most tasks in a non-Windows environment. Even the simplest tasks, such as creating basic filters, were complicated in BCS3. The use of nonstandard terms in place of standard Army terminology created confusion. Starting BCS3 was a lengthy and slow process, and it took several minutes to transition through various screens.

BCS3 Training

Because the BCS3 software was not user friendly, its use required extensive training on a skill that would soon become obsolete. Initially, the Army fielded BCS3 to units just before they deployed, which precluded adequate training opportunities. Today, BCS3 fielding and new equipment training occur early

in the predeployment process, potentially causing the opposite dilemma. If Soldiers are trained too early, their BCS3 skills could atrophy before they have the opportunity to use them at a capstone training exercise.

Operators and managers must continue to be exposed to BCS3 to avoid skill erosion. The many predeployment tasks for midgrade officers and senior noncommissioned officers (NCOs) compete with their availability to attend BCS3 training.

System Distribution

Another problem in BCS3’s development is the battle command policy of “software blocking” for ABCS. Software blocking is the process of delivering updated versions of all of the different ABCS software simultaneously to ensure compatibility, limit the amount of ABCS software testing, and most importantly, decrease turbulence to users in the field.

Although these are all valid reasons for the use of software blocking, the policy creates a major shortfall by dramatically delaying updates to the field. If the software for most of the subsystems is ready for an update, waiting for the remaining subsystems to reach maturity causes a delay. Delays continue until all of the subsystem software passes compatibility testing. Consequently, major software updates normally take years to field.

The basis of issue plan determines the number of BCS3 systems authorized for the different types of units. The authorized quantity on the modified table of organization and equipment (MTOE) comes from the basis of issue plan. Many factors, such as unit type, echelon, and duty position, determine the number of authorized BCS3 systems. The BCS3 basis of issue plan disproportionately authorizes more BCS3 systems at the operational level than the tactical level. A more even distribution of the systems would benefit overall BCS3 effectiveness.

Logistics Reporting Tool

The most recent version of the BCS3 software offers

a logistics reporting tool (LRT), which provides an automated means of reporting logistics status (LOG-STAT). As a single point of data entry application, LRT provides “bottom up” reporting for all classes of supply. Key commodities without a tactical Standard Army Management Information System (STAMIS), such as class I (subsistence), class III (petroleum, oils, and lubricants), and water, benefit the most from the LRT capability. Designed in a spreadsheet format, LRT is very user friendly and therefore requires minimal user training. Managers of commodities without a dedicated tactical STAMIS will find LRT particularly useful.

Historically, units have managed commodities such as fuel and water by emailing multiple Microsoft Excel spreadsheets. Normally, a higher headquarters creates the spreadsheets and pushes them down to subordinate units. Lower-level activities submit appropriate spreadsheets to their next higher command.

Typically, quality checks at each level result in units volleying spreadsheets until they are correct. Likewise, each command level consolidates data from like activities and forwards them to the next higher command, and so forth. Because of the numerous manual data entries at every level and the long trail of email traffic, this process is inefficient, lengthy, and prone to human error.

As a single source of data entry, LRT is efficient, fast, and accurate. For example, a supply point clerk submits a report and the information is immediately available for all LRT account holders. LRT eliminates manual spreadsheets and the associated errors, reduces email traffic, and most importantly, provides logistics planners and commanders at all levels accurate real-time commodity information.

An additional benefit of LRT is that it is stand-alone software. LRT software is loaded on all of the BCS3 MTOE systems and is also easily downloaded to any computer. Since most supply points and supply support activities do not have BCS3 systems readily available to them, the ability to download LRT to any computer gives them a simple, quick, and automated application to report LOGSTAT data.

In addition to having the stand-alone capability of LRT, many BCS3 capabilities are Internet accessible via the BCS3 local access portal (LAP). Commanders, support operations officers (SPOs), commodity managers, and S-4s can access all LOGSTAT and STAMIS reports quickly and conveniently. Including LRT and LAP can easily increase the amount of personnel in a unit exposed to data in BCS3.

Ways to Increase the Use of BCS3

Despite improvements, the current version of BCS3 still only receives limited use in the field. In fact, most units employ only a small portion of their MTOE-authorized BCS3 systems. The most important factors

to increase BCS3 use are support by senior leaders and increased training for mid-level managers.

In the field, a commander has the discretion to use or not to use any of the numerous tools available. No matter how much the Army invests in a system, many senior leaders do not mandate the use of specific systems such as BCS3. Although a commander should have this prerogative, not encouraging the use of a system influences the users’ perceptions of it. If the commander does not support BCS3, it is not likely to be used by the staff. If a higher command does not use or enforce the use of BCS3, the subordinate units do not even consider using it.

On the other hand, if a commander encourages or mandates the use of BCS3, the staff will, at the very minimum, attempt to learn and use the system. Commanders, field-grade officers, and senior NCOs must participate in BCS3 implementation plans to foster its integration into the unit and ensure that the system meets its full potential.

To increase the effectiveness of BCS3, one major change to the current training format is needed: training should familiarize students with BCS3 and focus on system management rather than only operator training. This approach would have significant effects. Officers and senior NCOs could concentrate on analyzing and managing information instead of creating or harvesting data. This training could be incorporated into the SPO course, or a course could be developed by the Army Logistics University as a complement to the SPO course.

BCS3 has improved and continues to improve its capabilities and its ease of use for logisticians. System changes that consolidated BCS3 into one database have nearly eliminated data integrity issues. Updates to the software to increase the ease of use have begun, and additional improvements are on the horizon. Commanders, senior staff officers, and operators must approach BCS3 with an open mind and experience firsthand the power that BCS3 brings to logistics mission control, reporting, and situational awareness.

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Historic Ammunition Retrograde Conducted in Korea

BY MAJOR GARY D. WHITTACRE

The 837th Transportation Battalion spearheaded the largest ammunition retrograde ever on the Korean peninsula as part of an effort to transport 136,000 tons of ammunition back to the United States for recycling.

U.S. Forces Korea's War Reserves Stockpile for Allies, Korea (WRSA-K), retrograde initiative is a congressionally sponsored program that allows outdated and excess ammunition stored in Korea to be shipped back to the United States to be recycled.

The WRSA-K initiative is expected to save millions of dollars in storage, inventory, and ammunition accounting costs. Under the accelerated retrograde initiative, the current goal is to send back 136,000 tons of conventional ammunition over the next 5 years. The ammunition slated for retrograde is no longer needed because of limitations in its shelf life and technological upgrades to weapons. Modern logistics concepts and the military's synchronized distribution network also have eliminated the need to store such large inventories abroad.

The Role of the 837th Transportation Battalion

As the single port manager for the Korean peninsula, the 837th Transportation Battalion, 597th Transportation Brigade, of the Military Surface Deployment and Distribution Command, stationed in Busan, Republic of Korea (ROK), plays a lead role in WRSA-K. The battalion executed its largest ammunition retrograde operation to date from 25 October to 4 November in Chinhae, ROK, as part of the WRSA-K initiative.

The first phase of the operation began months before, when the 837th's cargo documentation section received data on containers that had been loaded for shipment. The cargo documentation section, along with the terminal operations section, developed a pre-stow plan to ensure that ammunition would be loaded and stored on the vessel safely and compatibly. The sections then built a manifest and submitted it to the MV [motor vessel] *Black Eagle*.

On 6 October, long ammunition trains loaded with containers filled with high explosives began to arrive on the dock in a schedule that continued until the load out began on 25 October.

The October load out was the third time the *Black Eagle* had been used for a WRSA-K operation, and Red River Holdings LLC had invested in improvements that made loading the containers onto the vessel easier. However, during this operation, the 837th Battalion "Kargo Kings" had to perform the mission with only one functioning gantry crane while working in winds ranging from 30 to 40 knots. In spite of this obstacle, the team loaded onto the *Black Eagle* 1,250 20-foot shipping containers filled with more than 19,592 tons of WRSA-K ammunition destined for U.S. ammunition depots 4 days ahead of schedule.

"The Kargo Kings of the 837th and all the participating units have every reason to be proud of their accomplishment of executing this retrograde operation under less than optimal conditions," said Lieutenant Colonel Kristian Rogers, commander of the 837th Transportation Battalion. "The Korean-U.S. battle cry of 'Katchi Kapsi Da' (We Go Together) was truly exhibited throughout this historic operation."

Each Unit Doing Its Part

The 837th Transportation Battalion spearheaded the operation, which was conducted with the 6th Ordnance Battalion, the 25th Movement Control Battalion, and the ROK Port Operations Group. During the load out, the 837th Transportation Battalion held two meetings daily for leaders from all units involved in the operation.

Mornings began with a joint operations and safety meeting, where after-action comments from the previous day were discussed and operation plans, force protection, and medical evacuation procedures were





Ammunition is loaded onto the MV Black Eagle in Chinhae, Republic of Korea, as part of the largest ammunition retrograde operation ever conducted by the 837th Transportation Battalion.

reviewed. Every afternoon, a daily production meeting was held to look at load rates and plan the next day's mission.

The 6th Ordnance Battalion personnel procured, inspected, spotted, filled, and weighed 20-foot shipping containers for ocean transport. The 25th Movement Control Battalion arranged for rail transportation. The 837th Transportation Battalion ensured that containers had working radio frequency identification tags and were staged properly according to weight, compatibility, and consignee by the port operations group soldiers. The ROK Port Operations Group uploaded the vessel and moved ammunition from various locations around the Korean peninsula.

The commander of the ROK Port Operations Group was fully involved and committed to this operation from the beginning. The 665th Port Battalion commander was on site while operations were underway, and ROK Port Operations Group soldiers ensured the cargo was secured and loaded safely and on time.

"This unit [the 837th Transportation Battalion] provides Soldiers the opportunity to plan, coordinate, and execute ammunition missions like [the] WRSA-K [initiative]," said Staff Sergeant Clifford Kurten, noncommissioned officer in charge of the WRSA-K operation. "Working with our peers, U.S. and Korean, Department of the Army civilians, and Korean nationals not only helps strengthen the alliance, but also provides the hands-on experience that is vital to execute a mission like this in a safe manner."

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Supporting an Afghan Convoy

BY CAPTAIN MICAH J. KLEIN

The 426th Brigade Support Battalion collaborated with the 5th Combat Service Support Kandak to support infantry operations of the Afghan National Army.

Oua, dwa, dre. One, two, three. An Afghan National Army (ANA) platoon leader, part of the 5th Combat Service Support (CSS) Kandak, 2nd Brigade, 201st ANA Corps, sized up his men as they prepared to travel on one of the most unforgiving roads in eastern Afghanistan: Main Supply Route (MSR) California. This CSS kandak partnered with Soldiers of the 426th Brigade Support Battalion (BSB), 1st Brigade Combat Team, 101st Airborne Division (Air Assault), to provide critically needed supplies to the 1st Infantry Kandak in northeastern Afghanistan on their 101-mile trek in support of Operation Azmaray Fury.

Operation Azmaray Fury was a joint Afghan National Security Forces operation aimed at taking back Barge Matal from Taliban forces and establishing security throughout the district.

Soldiers of the 426th BSB worked diligently with the 5th CSS Kandak to improve the ANA soldiers' tactical and technical skills while the units delivered logistics support to the infantry forces in the northeast.

Getting the kandak up to par was no easy feat. The 426th BSB conducted classes on proper vehicle operations, reacting to direct and indirect fire while mounted, and proper radio procedures to hone the skills of 5th CSS Kandak soldiers. This training not only prepared ANA soldiers to work with the 426th BSB but also to conduct logistics convoys long after their U.S. partners depart.

According to Sergeant First Class Ryan Waters, a platoon sergeant with A Company, 426th BSB, proper planning, rehearsal, load up, and execution of a logistics convoy takes an average of 7 to 10 days and many man-hours. "It's not something that can be taught overnight," said Waters. "My Soldiers work shona-bi-shona (shoulder to shoulder) with the soldiers of the 5th CSS Kandak to get the mission accomplished and keep the force rolling."

After arriving in Regional Command East in April 2010, Soldiers of the 426th BSB conducted more than 50 combined logistics convoys with their partners in the ANA.

Convoy operations provided training not only for those on the road but also for those back in the combined action tactical operations center at Forward Operating Base Fiaz. Soldiers of B Company, 426th BSB, and the Headquarters Company, 5th CSS Kandak together tracked the movement of their logistics convoy on MSR California on the Blue Force Tracker screens as it moved up north.

An Afghan National Army patrol leader provides a convoy brief to his Soldiers prior to heading out on a mission.





Above, ANA transportation company soldiers prepare to conduct a security patrol to Forward Operating Base Bostick with their 426th BSB partners. Below, an ANA soldier ties down a vehicle—a skill taught to him by A Company, 426th BSB, Soldiers—before going out on a security patrol mission in eastern Afghanistan.



Sergeant First Class Gerald Gimenez of B Company showed his Afghan counterpart how to send on-screen flash important priority routine (FIPR) messages to the convoy commander. “We show them the same skills that we learned from our training prior to deployment to help develop them so that, by the time we leave here, they have the ability to track the battle themselves,” said Gimenez.

The tactical operations team received a FIPR message alerting them that the convoy took brief rocket-propelled grenade and small-arms fire in a frequently high-engagement area. With the help of soldiers from the 5th CSS Kandak, the U.S. Soldiers in the convoy returned fire and pressed through the kill zone.

Attacks like this became typical on the MSR, and each time, U.S. and Afghan Soldiers responded

appropriately within the rules of engagement. Each time 5th CSS Kandak and 426th BSB Soldiers went on the road together, they inflicted devastating casualties to the enemy, protected the civilian population, safeguarded crops, and conducted their mission of delivering supplies to soldiers of the 1st Infantry Kandak.

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TACOM Vehicle Fire Suppression Systems

BY LOUIS GORENC

The Army is making changes to the fire suppression systems in its vehicles in order to reduce the size of the logistics footprint of these systems in the theater of operations.

Currently, insurgent attacks on ground vehicles are the greatest fatality-producing tactic in the terrorists' deadly toolbox. These explosions are sometimes so large that vehicles are lifted and overturned. Some explosions rupture fuel tanks, setting fuel and tires on fire. Petroleum-based materials make very energy-dense fuels, and fires must be extinguished immediately and completely to prevent injury to vehicle occupants. Because of this threat, improved automatic fire-extinguishing systems are needed in ground vehicles.

Fire Suppression History

The first military fire suppression systems (FSSs) were aboard ships and pumped water to douse fires. However, ground military vehicles did not have the capacity to carry water to fight onboard fires, and personnel and vehicles were more often lost than saved. Since hauling FSS water was impractical, other agents were needed.

The first modern FSS was built in 1818. It was a 3-gallon pressurized copper barrel containing potassium carbonate and water. Next, a soda-acid extinguisher was patented in France in 1866; it contained a sodium bicarbonate and water solution mixed with tartaric acid to produce carbon dioxide (CO_2). Interestingly, the first foam extinguisher, invented in Russia in about 1905, used water, licorice root, and sodium bicarbonate. Upon mixing, CO_2 was produced, with the licorice juice trapping the bubbles to produce foam.

Henri Victor Regnault made a major breakthrough in fire suppression technology in 1839 when he developed the carbon tetrachloride (CCl_4) extinguisher, commonly called "carbon tech." This was the first halon (halon 104), which was produced by chemically combining chloroform with chlorine. (The term "halon" comes from the Army's shortening of halogenated hydrocarbon.) Carbon tech was the first FSS agent that did not leave a residue or, like water, cause additional structural damage to buildings. A CCl_4 extinguisher, consisting of a 1-quart capacity metal container and manual pump, was developed in 1911 for automotive

use (gasoline fires).

For the next 60 years, CCl_4 served as an excellent extinguishing agent that blanketed flames and starved fires of oxygen. However, CCl_4 is dangerous to humans. Aspirating or absorbing CCl_4 into the body can cause damage to the liver, kidneys, and other organs.

A CO_2 extinguisher for electrical fires was developed for Bell Telephone Company in the 1920s, providing a clean extinguishing agent that leaves no residue. During World War II, the Germans invented the more effective chlorobromomethane (halon 1011)—a liquid to be used in aircraft FSSs. Halon 1211, a liquid steaming agent, was used in Europe after World War II and arrived in the United States during the 1970s. Halon 1301, a gaseous flooding agent, was being developed by the U.S. Army and DuPont in the early 1950s as a four-times-heavier-than-air flooding agent to cool and deprive fire of oxygen. It is remarkable that some types of suppression agents are still being used after 100 years.

Today's Military Ground Vehicle FSSs

Current military ground vehicle FSSs extinguish vehicle fires adequately, but the need for faster, safer FSSs is more important than ever. Another requirement for FSSs involves the logistics imperative for commonality among ground vehicle systems. The TACOM Life Cycle Management Command manages hundreds of Army systems, including trucks, combat vehicles, ships, boats, and railroad locomotives.

Each vehicle has its own FSS. Often the same type of vehicle has variants that have different types of FSSs. Each of these FSS types can have a different manufacturer, different extinguishing agent, and different fire-detector sensing equipment. This makes it more difficult to procure, stock, and draft technical manuals to support each system.

Supply Problems

The need in the Southwest Asia theater for armor protection in a truck-type vehicle was so great that several manufacturers built platforms using many different

FSSs. For example, the new series of mine-resistant ambush-protected (MRAP) vehicles had six manufacturers with eight major variances and several subgroups with different FSSs, constituting the ground vehicle system with the largest number of vehicles and the most different FSS items. Each MRAP original equipment manufacturer installed the FSS that its engineers and FSS manufacturers recommended. As a result, five FSS manufacturers were used.

Each FSS had different fire extinguisher bottles with different agent capacities based on crew compartment volume, different discharge valves with various functions, different detection sensors, different control modules, different wiring harnesses, different switches, and different agents. This created an unreasonable number of Government-stocked FSS items.

Adding to the burden, certain FSSs were randomly discharging, requiring the replacement of discharged bottles and valves before remedies were found and made. Including transportation back to the continental United States (CONUS), the cost to replace one discharged bottle was approximately \$2,000. Some Army platforms use up to 10 bottles per vehicle. In all vehicle systems across the theater, thousands of bottles were being used and discarded.

One FSS manufacturer has approximately 12 valve variants used in multiple platforms, each with slightly different functions, and many platform maintainers did not know that other vehicles were using the same valves. Different Government stock numbers were assigned to the same valves for different platforms, causing more confusion and duplicate item stockage. The inability to recharge FSS bottles in theater increased the leadtime to replace bottles, and transportation costs back to the manufacturers were enormous.

With general officer direction, the problems with having bottles discharge randomly and having to send bottles back to the United States for refilling were addressed. Army contracts were awarded to set up FSS refill stations in theater, which began recharging fire extinguisher bottles. FSS manufacturers stopped the unnecessary discharges by sending technical representatives to diagnose errant and erratic discharges and by redesigning sensors.

Refilling FSSs in Theater

Today, numerous contractor-operated FSS refill stations in theater are working hard to ensure that the FSSs are available to protect thousands of vehicle crews. Plans have been made for additional refill stations to serve more theater locations, reduce transportation requirements, and refill bottles faster. Several refilling stations are also being set up in CONUS to better serve the Army. FSS refilling and repair training is being established to reduce the Army's dependence on FSS manufacturers for support.

The Army Product Manager, Sets, Kits, Outfits, and Tools has developed a prototype called the standard automotive tool set field maintenance module 3 (FMM3). The FMM3 is an expeditionary system that can be transported by land, air, or sea to austere environments. It is fully self-contained and is capable of refilling, reclaiming, and maintaining FSS bottles and valves. The FMM3 will fulfill the needs of all FSS agents from CO₂ to halon and the different platform systems.

Disposable FSS Bottles

The future of Army vehicle FSSs is progressing to hermetically sealed, disposable bottles with a shelf life of up to 10 years that use gas generator propellants (similar to those used in automotive airbags) to discharge the agents. After discharge, the one-shot disposable bottles are demilitarized and sent to a scrap metal recycler. Disposable FSS units can reduce the Army's logistics footprint greatly by eliminating the need for refilling and recharging stations. It also eliminates the need to transport, stock, and store fire suppression agents and to transport bottles back to recharging and refilling stations.

However, reducing the logistics footprint by using only disposable FSS has drawbacks. Each new ground vehicle system being designed, produced, and procured with an automatic fire extinguishing system adds to the logistics burden with new types of FSS bottles, sensors, electrical harnesses, discharge valves, and other components.

The logistics burden of provisioning and stocking a greater variety of items is growing. Commonality among systems is vital to reducing the footprint. Yes, FSS innovations will be incorporated, but a close engineering review of commonality of existing parts must be the second portion of a true reduction of the FSS logistics footprint. Army vehicle automatic FSS designs and choices must be made early in the developmental stage of new vehicles with specific language requirements stating what performance and equipment the Government desires for the best protection of crews and vehicles.

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Raising Army EOD Entry Requirements

BY CAPTAIN EMILY H. SPENCER

Soldiers currently entering the Army can elect to become explosive ordnance disposal technicians if they meet certain minimum requirements. The author proposes strengthening these requirements to improve the quality of potential EOD Soldiers.

An Army recruit has a variety of military occupation specialties (MOSs) from which to choose. One of those is MOS 89D, explosive ordnance disposal (EOD) specialist. An individual who is not color blind and has a score of 126 or higher on the general technical section of the Armed Services Vocational Aptitude Battery is eligible for this MOS. These requirements are less stringent than Marine Corps EOD requirements, which mandate that EOD Marines be at least 21 years of age and have the rank of sergeant or of corporal with a waiver.

The Army EOD field recently made its legacy companies modular, effectively doubling the size of EOD units in order to support ongoing missions around the world. With the rapid increase in the number of EOD Soldiers over the past 7 years, the Army is steadily reaching its EOD recruiting goals. However, the Army still has a significant deficit of EOD-certified team leaders.

EOD Soldier Quality Issues

In the 1940s, when the field of EOD was born after the bombing of Pearl Harbor, there was concern over who should be trained to perform the duties of a technician. The Chief of Ordnance noted that volunteers could not be properly trained or disciplined for the hazards the job brings and that only professional Soldiers could develop the skills and experience needed for such work.

Some argue that the increase in quantity resulting from the emphasis on recruiting EOD Soldiers has reduced the professionalism and job dedication of today's technicians. Critics note that this problem was created by the Army's seemingly lax entry standards, particularly those regarding prior military service time. More stringent requirements will mean that fewer EOD Soldiers are recruited, but new standards may enhance quality among EOD Soldiers.

Moving toward stricter requirements like those of the Marine Corps may be difficult to enforce until the Army meets its fill requirements for enlisted EOD Soldiers. However, stricter standards would promote

the selection of more professional and knowledgeable prior-service junior Soldiers. It may also reduce risks and enhance the safety of the three-Soldier EOD teams.

Proposed Change to EOD Requirements

Although the following proposed change of entry requirements has inherent difficulties, particularly in reaching recruiting goals for the expanding EOD field, I feel the following constraint should be made to the Army's current standard for new EOD Soldiers: enlisted Soldiers should not be allowed entry into the EOD field unless they have achieved the rank of specialist and have at least 4 years of active-duty service. This would raise the overall age and maturity levels of those in the EOD field. It would also broaden the knowledge base of the Soldiers in EOD companies because new EOD Soldiers will have already worked in another MOS before becoming EOD technicians.

The large difference between an 18-year-old initial entry trainee and a 22-year-old military veteran should be noted. It all relates to maturity levels and life experience. Much of the maturity that is found in today's Soldier is formed during the first few years of his military experience with the help of a squad leader or platoon sergeant. Lacking maturity and professionalism increases the possibility of making mistakes in all MOSs.

The inherent risks in the EOD field will remain regardless of a minimum age requirement. According to Command Sergeant Major James H. Clifford, the deaths of EOD technicians should serve as a reminder that danger is found on any EOD mission, no matter how routine it may appear. In few fields in the military are mistakes as unforgiving as they are in EOD. The EOD motto says it best: "Initial Success or Total Failure."

A junior Soldier is at times responsible for the safety of his team leader through his knowledge of the situation and the procedures for responding to an incident. An immature Soldier can jeopardize the integrity of the job, which can potentially lead to serious injury or death. Increasing the age at which a Soldier can apply,

Soldiers assigned to the 797th Explosive Ordnance Disposal (EOD) Detachment, Fort Sam Houston, Texas, and attached to the 761st EOD from Fort Sill, Oklahoma, prepare to detonate an unexploded ordnance round found near Forward Operating Base Rustamiyah, Iraq. (Air Force photo by SSG Jason Bailey)



by requiring 4 years of prior service, could assist in eliminating elements of immaturity among new EOD recruits.

Advantages of Varied Experience

Another advantage of requiring a record of military service is that the potential candidates will bring expertise from other fields with them. EOD teams are often deployed in austere environments with limited support from external assets.

Modular EOD companies have communications, mechanical, and supply assets. Yet when an EOD unit deploys, these assets typically remain at the headquarters while the three-Soldier EOD teams are deployed to various locations. Thus, a team loses these assets and often must use the assets of the unit it supports.

This can be problematic for various reasons. The most challenging scenario the EOD team or platoon may face is if the supported unit puts the needs of the EOD team behind the needs of its own companies and platoons—rightfully so since units should always strive to provide for their own Soldiers first and foremost, yet the supporting unit always suffers.

If entry requirements into the EOD field were adjusted, Soldiers could arrive with a knowledge base of other military specialties, enhancing the survivability of their team. Prior military experience ensures that the Soldier is aware of the basic rules and protocol of the Army, which in turn eases the burden of being frequently deployed and away from the parent unit. This small change in entry requirements would enhance the abilities of the EOD team and allow it to focus on the inherently dangerous mission ahead.

Another benefit of the proposed entry requirement is the possibility of an increased sense of dedication to the job. Once a Soldier completes EOD training under the proposed standards, he would have approximately 6 years of military service on his record. The likelihood

of reenlistment seems higher if the individual already has invested time in the Army. Under the current standards, thousands of dollars are spent to train one Soldier for a mere 3-year commitment. Thus, the new requirement has the potential of retaining Soldiers, reducing turnaround time of new technicians, and saving money for the military by not having to train as many EOD personnel.

Although the current operating tempo creates a greater need for EOD Soldiers, the Army needs to look into the current entry requirements. By mirroring the example the Marine Corps has set by requiring prior service of its EOD technicians, the Army could enhance the mobility of its EOD units. Raising the age and requiring military experience for EOD Soldiers would greatly enhance the knowledge, maturity, and professionalism of the EOD team. This in turn would reduce some of the inherent risks associated with the job and potentially save the lives, limbs, and property of all involved.

The lack of manpower in the field at the present time may make it impossible to implement this change to the EOD recruitment age and service requirements, but it should be considered for future operations after either the current operating tempo has decreased or recruiting efforts have increased manpower in the enlisted ranks.

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The 10th Sustainment Brigade in Iraq: Sustaining the Climb

BY MAJOR SHERDRICK S. RANKIN, SR.

While deployed to Iraq, a sustainment brigade delivered supplies, fed troops, maintained equipment, participated in joint operations, and fostered a good relationship with local citizens.

A year after the surge in Iraq, in the fall of 2008, the “Muleskinners” of the 10th Sustainment Brigade from Fort Drum, New York, began their tour of duty after the transfer of authority with the 1st Sustainment Brigade from Fort Riley, Kansas. The brigade began orchestrating sustainment support for more than 140,000 Soldiers, Marines, and civilians operating in a battlespace that encompassed one-third of Iraq. This area included all of Multi-National Division-Baghdad and Multi-National Forces West (MNF-West).

This was the brigade’s first deployment to Iraq, but it had returned from a deployment to Afghanistan in 2007, where it had served as a joint logistics command. The 10th Sustainment Brigade is not a fixed organization, and the Soldiers who served in this diverse organization came from New York, Texas, Indiana, Washington, Georgia, Puerto Rico, and Germany. During the deployment, more than 8,000 Soldiers served under the 10th Sustainment Brigade in 9 subordinate battalions and over 70 company-sized units.

An intelligence analyst with the 10th Sustainment Brigade passes out notebooks to the students of the Al Mustaqbal School.



Sustainment Operations

In 1 year, the 10th Sustainment Brigade issued over 80,000 cases of meals ready-to-eat, fed nearly 60,000 customers in the Muleskinners dining facility, and delivered over 11 million cases of bottled water to battle the 100-degree heat the Soldiers faced day in and day out. The brigade delivered over 100 million gallons of JP8 fuel to its subordinate units throughout its sector and issued over 4.5 million rounds of class V (ammunition), ranging from small-arms ammunition for marksman-ship ranges to large rockets used for combat operations and force protection.

Using the two-level maintenance system, maintainers of the 10th Sustainment Brigade provided field and sustainment maintenance support, repaired not-mission-capable equipment, completed required maintenance services, and kept the newly issued mine-resistant ambush-protected vehicles mission ready.

The transportation companies of the four combat sustainment support battalions moved every class of supply and drove just under 4 million miles on dangerous main supply routes during the deployment.

Finance and Human Resources Operations

During the brigade's deployment to Afghanistan in 2006, it had a personnel and finance battalion as part of its task organization. But during its deployment to Iraq, these battalions no longer existed because of the Army's change to modular organizations. The new special troops battalion comprised a financial management company and a human resources company commanded by majors. The 10th Sustainment Brigade human resources operations branch and financial management operations cell managed these companies, but the mission command came from the special troops battalion.

The human resources company's missions included personnel management and services for casualty operations, battlefield promotions, the Deployed Theater Accountability System, joint personnel status and casualty reports, rest and recuperation, and plans and operations. The two human resources companies that served in the 10th Sustainment Brigade processed over 2 million pieces of mail and manifested just under a half million Soldiers and civilians at Baghdad International Airport.

The two financial management companies provided financial assistance to all military personnel and Department of Defense civilians in Baghdad and Taji. They provided first-class finance customer service, cashed checks, set up Eagle Cash Cards, and enrolled troops in the deployment savings plan. The finance platoons traveled to remote forward operating bases that had as few as 10 Soldiers to provide financial support. The finance companies that served under the 10th Sustainment Brigade paid out over \$200 million in check cashing, assisted with Soldiers' pay problems, and worked with paying agents to purchase goods and fund projects in Multi-National Division-Baghdad.

MNF-West Sustainment Operations

The brigade had one of its combat sustainment support battalions at Al Asad Air Base to support the missions in MNF-West. This was an important base because the Soldiers were constantly arriving and departing the theater through it instead of flying into and out of the country at Baghdad International Airport. Currently, Al Asad Air Base is being used as a logistics hub, but in the future, it will become a key training base as well.

The brigade owned the joint distribution yard, which was instrumental in managing the movement of equipment and ensuring that equipment did not reside in the yard for longer than 96 hours. The brigade set high standards for its central receiving and shipping point yard operations and moved more than 70,000 pieces of equipment during each 96-hour period for the entire year.

Another one of the brigade's massive missions was the joint air cargo operations terminal. This was truly a joint mission among the Army, Air Force, Navy, and Marine Corps. Marines were in control of the operations at the arrival/departure airfield control group; however, the 10th Sustainment Brigade provided Soldiers to conduct human resources operations.

Fostering Relationships With Iraqi Citizens

The 10th Sustainment Brigade S-2 section, with the assistance of the 2d Battalion, 36th Iraqi Army Brigade, donated school supplies to the Al Mustaqbal School in Salah ad-Din province. The brigade S-2 noncommissioned officer collected paper, notepads, pencils, pens, book bags, books, erasers, and other supplies to donate to the school. This effort is just one example of the many ways the 10th Sustainment Brigade Muleskinners contributed during Operation Iraqi Freedom.

In October 2009, the 10th Sustainment Brigade handed the reins over to the 96th Sustainment Brigade from Salt Lake City, Utah. Throughout the deployment, the Muleskinners performed admirably and did an outstanding job of providing world-class support to its 140,000 customers. The brigade stands ready for its Nation's call to sustain the climb.

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Soldiers receive supplies by airdrop.
(Photo by U.S. Army)

Supplies From the Sky

BY CHIEF WARRANT OFFICER 2 CARLOS ROJAS

Because of the challenging terrain in Afghanistan, aerial delivery is the dominant method of supplying small units with needed essentials in Operation Enduring Freedom.

A tan Humvee is shown from a low angle, positioned in a dry, hilly desert landscape under a clear sky. The vehicle's front grille, headlights, and a mounted machine gun are visible. In the background, there are rolling hills and mountains.

During the buildup of troops and equipment in Afghanistan, the Army confronted the logistics problem of how to provide Soldiers on the ground with basic subsistence supplies. Underdeveloped roads, rough terrain, and the threat of enemy attacks on convoys made standard ground delivery of supplies to units engaged in Operation Enduring Freedom (OEF) difficult.

Because of these factors and the high operating tempo, the airdrop of supplies became a very viable alternative. Airdrop operations offer several advantages over other delivery methods. The primary advantage is that they can be used when no other means

are available for transporting needed supplies or equipment. Airdrops also reduce handling of supplies and shipping times.

The Airdrop Operations Process

Airdrop operations are time sensitive and joint and require that all agencies involved be perfectly synchronized and coordinated. In OEF, aerial delivery has been used as the primary method for supplying isolated forward operating bases and combat outposts throughout Afghanistan. Ground units submit their requests for airdrops to their respective task forces. Each task force then submits requests to its



Above, parachute riggers from the 1st Sustainment Brigade rig container delivery system bundles for airdrop. Below, parachute riggers load pallets that include JP8 fuel into a C-17 aircraft. (Photos by SGT David Rear-don, 1st Sustainment Brigade PAO)



sustainment brigade's aerial delivery section. The aerial delivery section coordinates the rigging of supplies and submits a joint movement request for aircraft allocation to the corresponding movement control team.

Requests for aircraft then are entered into the Intra-Theater Airlift Request System, and the aircraft is allocated. The Air Force air mobility detachment plans and coordinates the mission so that the forces on the ground (Army, Marine Corps, and coalition units) can receive their supplies by airdrop.

The 1st Sustainment Brigade Airdrop Mission

The 1st Sustainment Brigade, which had personnel spread throughout four countries in the U.S. Central Command area of responsibility, provided aerial delivery support directly to warfighters located in Afghanistan and also to units in remote locations in Iraq as required. The brigade's aerial delivery section coordinated with the 824th Quartermaster Detachment, located in Southwest Asia, for the rigging of supplies. Trained Army parachute riggers of the 824th Quartermaster Detachment rigged and inspected the loads for airdrop. Each day, a small detachment of about 20 riggers faced the merciless Southwest Asia weather, which can range from 130 degrees Fahrenheit in the summer to 40 degrees Fahrenheit in the winter.

Rigged container delivery systems (CDSs) are dispensed to the flight line and loaded onto Air Force planes, where certified joint airdrop inspectors examine the loads one last time before takeoff. Aircraft, like the C-17 Globemaster III and C-130 Hercules, fly over the precoordinated drop zone, and gravity extracts the CDS bundles as the plane flies in a "nose up" fashion. These aircraft can deliver multiple bundles weighing up to 2,200 pounds at a time. Riggers use high-velocity and low-velocity parachute systems, depending on what types of commodities are being delivered. High-velocity systems descend at a faster rate than low-velocity systems and are used primarily for nonfragile items. Soldiers carefully rig every load to ensure the survivability of the commodities that will strike the ground in the rugged mountainous terrain.

During the peak months, parachute riggers from the 1st Sustainment Brigade rigged an average of 62,526 pounds of supplies per day and over 1,258 CDS bundles per month. In November 2010, the riggers established a new record: A total of 1,472 CDS bundles and more than 2.1 million pounds of supplies were airdropped into Afghanistan.

"We have seen an increase of over 33 percent on the number of loads during the last 4 months," said Chief Warrant Officer 2 James Tiddy, commander of the 824th Quartermaster Detachment and an airdrop systems technician.

By the end of 2010, the riggers from the 1st Sustainment Brigade had delivered over 12,450 CDS bundles

equating to over 18 million pounds of supplies. This was accomplished by supporting over 350 combat resupply airdrop missions to over 45 different drop zones across Afghanistan.

The riggers from the 1st Sustainment Brigade established three different theater airdrop records for the most CDS bundles and the most pounds per month rigged. Nevertheless, it is not about numbers and records. In the end, the most rewarding part of the job was supporting the Soldiers on the ground.

LCADS

In many operations since the Vietnam War, Soldiers have gotten their supplies by rail, truck, and sea. This war has brought back the World War II tradition of delivering supplies by air. After a year into the buildup in Afghanistan, and now that troop levels are stabilizing, we can look back on the lessons learned and try to make systems and procedures more efficient to provide the warfighter with the supplies needed to complete the mission.

The low-cost aerial delivery system (LCADS) was developed during the last 9 years of war. LCADS is a one-time use, stand-alone airdrop system consisting of parachutes, containers, platforms, and other air items configured for low and high-velocity aerial delivery of loads. The system is 50- to 80-percent cheaper than the conventional parachutes and containers used for these types of missions.

Another advantage of LCADS is that it comes pre-packed from the manufacturer, saving countless man-hours of rigging work and speeding up the process. The system has been so successful that the manufacturers were barely able to keep up with the 1st Sustainment Brigade's demand. Yet, the mission never stopped. Riggers, with the help of the Air Force, continued timely and accurate delivery of supplies to Soldiers, Marines, and Special Forces units in the most remote locations.

The mountainous terrain and the threat of enemy attacks have made airdrop operations the standard way of delivering supplies to forces in remote locations. Aerial delivery is no longer the last resort for resupply. It is a viable and ingenious way to deliver commodities to the front lines quickly and effectively and will continue to be effective for supply operations, especially in Afghanistan.

CHIEF WARRANT OFFICER 2 CARLOS ROJAS WAS THE SENIOR AIRDROP SYSTEMS TECHNICIAN FOR THE 1ST SUSTAINMENT BRIGADE DURING ITS DEPLOYMENT TO KUWAIT. HE HOLDS AN ASSOCIATE'S DEGREE IN GENERAL STUDIES FROM PIERCE COLLEGE AND IS A GRADUATE OF THE AIRDROP SYSTEMS TECHNICIAN WARRANT OFFICE BASIC COURSE, THE MILITARY FREEFALL PARACHUTIST COURSE, AND THE 82D AIRBORNE DIVISION JUMPMaster COURSE.

The Theater Express Program: A Combat Logistics Force Multiplier

BY LIEUTENANT COLONEL DEAN A. HUARD

A U.S. Central Command program uses commercial carriers to supply units in Southwest Asia, reducing demand on military airlift and ground convoys.

The Theater Express program employs commercial airlift to move nonsensitive Department of Defense (DOD) sustainment cargo and rolling stock (vehicles) to customers throughout the U.S. Central Command (CENTCOM) area of responsibility. The Government purchases, on average, \$390 million worth of capacity on commercial aircraft each year, which allows the commercial carriers to utilize their own supply chains.

The program is managed by CENTCOM's Deployment and Distribution Operations Center (CDDOC) at Camp Arifjan, Kuwait. Other key stakeholders and their responsibilities include the—

- ❑ CENTCOM J-4 Mobility Division at Tampa, Florida, which establishes strategic policy.
- ❑ U.S. Air Forces Central's Air Mobility Division Aerial Port Control Center at Al Udeid, Qatar, which executes policy and operations for intratheater airlift support.
- ❑ U.S. Transportation Command's Directorate of Acquisition at Scott Air Force Base, Illinois, which exercises contracting authority.

The Theater Express program was established in 2006 to ease the demand for organic airlift within the theater and to reduce the need for convoys on highly trafficked Iraqi roads riddled with improvised explosive devices. As a result of the program, the safety of service members and the operational life expectancy of the Air Force's aviation fleet have both been effectively increased. Since its origin, the program has expanded to meet Operation Enduring Freedom's requirements in Afghanistan.

The Theater Express Process

Customers (that is, units in the field) send their cargo that needs to be shipped to one of 64 aerial ports for movement on one of the 4,323 city-pair combinations

(flight routes such as Kuwait to Bagram, Afghanistan; Kabul to Camp Bastion, Afghanistan; or Balad to Basra, Iraq) through which the Theater Express program operates. The Air Mobility Division then determines if it will ship cargo by military or commercial airlift, based on the operational priorities on any given day.

Once the mode of travel is determined, all five commercial carriers (Air Transport International, National Air Cargo, UPS, FedEx, and Evergreen) have the opportunity to bid on the cargo by offering a price per pound. The award winner is chosen by the factors of historical performance (i.e., delivery time and cost). Performance is determined by the company's ability to deliver cargo within 72 hours to meet contract terms 85 percent of the time. If cargo is not delivered by this agreed-upon time, the company will lose points, which will affect its future bids.

To ensure that the tracking of cargo is as accurate as possible, the program relies on a number of intransit visibility media, including electronic data interchange, radio frequency identification, and the Global Air Transportation Execution System. The redundancy in intransit visibility systems confirms that the carriers are properly credited for the pallets that they are contracted to deliver within the 72-hour window.

Working With the Kuwaitis

Al Mubarak Air Base, located on the military side of Kuwait International Airport, is the largest outbound port for the Theater Express Program. In March 2010, the Kuwait Directorate General of Civil Aviation implemented a trial period that affected all carriers that requested to land at the airfield. Specifically, the number of parking spots was reduced from seven to five and the times that were available to land were shortened. All this was due to the Kuwaitis' need to manage their expanding air traffic.



Cargo is loaded onto a Theater Express commercial carrier at Al Mubarak Airport in Kuwait for delivery into Afghanistan.

Theater Express carriers took these changes in stride and were able to recalculate their trip planning so that cargo continued to be delivered within 72 hours. The relationships that the CDDOC built with the Kuwaiti airport personnel proved to be invaluable as it finalized the memorandum of agreement that officially established the rules and procedures governing Theater Express operations. These rules pertained to safety compliance, notifications of safety violations, timeslot availability, and parking availability.

Partnering With the Defense Logistics Agency

The number one Theater Express program customer—accounting for 41 percent of the program's market share—continues to be the Defense Logistics Agency (DLA) Distribution Kuwait, Southwest Asia (DDKS). DDKS's mission is to provide forward stock-positioning support and enhanced physical distribution services

to the Armed Forces located in the CENTCOM area of responsibility.

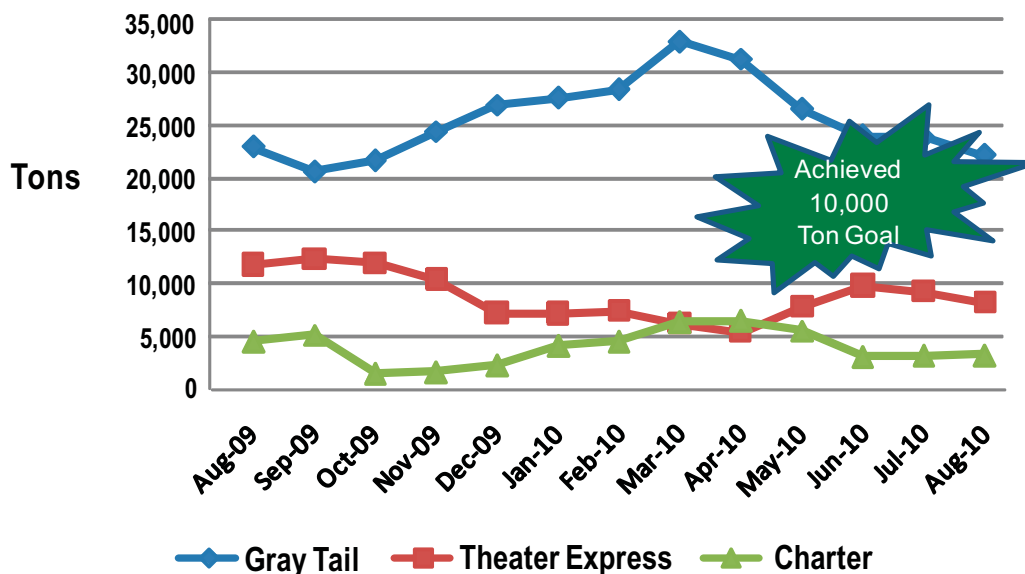
DDKS's distribution facilities, with locations in Kuwait, Bahrain, and a newly established expeditionary site in Kandahar, Afghanistan, are strategically positioned in Southwest Asia to reduce transportation and customer wait time. The commodities they distribute include repair parts, construction and barrier materials, and clothing, textiles, and tentage, all of which qualify for shipment by Theater Express. Once materiel release orders are received at DDKS, pallets are configured and then trucked to Al Mubarak Air Base where they are flown to the customer's destination.

Improving the Theater Express Foxhole

After arriving in theater, I was given the task of managing the Theater Express program. However, I was an Army logistician and my experience in air logistics



Theater Express Cargo Movement History



Sorties	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10
Gray Tail	4,431	4,209	4,164	4,468	4,780	4,902	4,519	5,600	5,522	5,460	5,176	5,634	5,556
Charter	112	130	61	71	84	122	149	180	139	108	85	154	230
C-17	1,183	1,110	1,239	1,355	1,480	1,508	1,239	1,632	1,482	1,400	1,353	1,524	1,349
C-130	3,240	3,094	2,923	3,109	3,294	3,389	3,278	3,967	4,040	4,060	3,823	4,110	3,977

Following the establishment of the Theater Express contract, the program reached its goal of moving 10,000 tons of cargo in June 2010. “Gray Tail” refers to Air Force transports, both C-130s and C-17s.

was limited. By “limited,” I mean that my background was confined to sitting next to cargo on many hops via C-130 Hercules and C-17 Globemaster III aircraft during my previous deployment to Operation Iraqi Freedom. I was inundated with many unfamiliar terms, such as “pallet position,” “PPR” (prior permission required), “MOG” (maximum on the ground), “ATO” (air tasking order), and “DIP” (diplomatic international permission) clearance.

Initially, the program had many issues to work through, such as establishing the new 1-year contract with a 1-year option. Placing the program under a contract that complied with the Federal Acquisition Regulation was a major change. Previously, the program had worked off a “tender agreement” with the carriers. The Office of the Secretary of Defense determined that

since Theater Express was an established program that had existed since 2006, it was necessary to implement a contract to ensure that the carriers complied with requirements such as a standardized safety reporting system. This newly added feature required that safety incidents be documented and investigated and that compliance with safety regulations be enforced.

After the first briefing to the CDDOC director, Air Force Major General Robert H. McMahon, it appeared that the total number of pallets that were being tendered via the Theater Express program had been declining for many months. Admittedly, one of the reasons for this was the initiation of the Black Jack Express in November 2009. The Black Jack Express was a 1st Theater Sustainment Command program that mandated that all cargo moving from Kuwait to Iraq be pushed

via line-haul truck since it was more cost effective to transport via surface shipping. The direct impact to the Theater Express program was a 20-percent reduction in cargo carried.

In January 2009, Iraq took control of its airspace. In May, the Iraq Civil Aviation Authority issued a directive for all non-DOD commercial carriers to enter into an agreement with Iraqi Airways for payment of landing and parking fees and an additional royalty of 10 cents per kilogram of cargo. Unfortunately, most carriers considered this arrangement to be monopolistic and decided not to continue operating in Iraq.

In order to increase the importance and benefits of the program, we set a goal of moving 10,000 tons per month by Theater Express. The philosophy was that maximizing the commercial carriers for the shipment of sustainment cargo would make additional military airframes available for other, higher priority missions, such as humanitarian relief, ammunition shipments, and troop movements.

Based on the previous high of 15,000 tons a month and a low of 5,000 tons, 10,000 tons was determined to be an achievable goal for Theater Express. Later, we quantified the goal as 200 pallets per day. In theory, if we moved 200 pallets per day via Theater Express, an additional 20 C-130s would be available for other operational needs based on the airframe's ability to make 2 full trips per mission.

The plan to increase the pallet count for Theater Express consisted of first garnering the support of the Air Mobility Division, which was the executor of the program and determined what flew by civilian or military aircraft. Once the division's personnel understood the concept and how the enterprise would benefit from this initiative, they determined that the best way to support our plan was to have a proof of principle to ensure that all eligible cargo would fly by Theater Express commercial carriers.

Turning the Plan Into Practice

This 2-week plan quickly demonstrated that the new policy was effective and was well received by the aerial porters. It resulted in the movement of 8,500 tons in May, which was an increase of 3,500 tons over the previous month. In June, we reached our goal of 10,000 tons per month. Theater Express use then declined slightly in July and August 2010. (See chart at left.)

Once the proof of principle was concluded, the next step was to transfer the proof of principle successes into policy. We subsequently campaigned to have "Tender/Theater Express first" permanently amended into the CENTCOM Aerial Port Letter of Instruction. We partnered with all stakeholders, including the CENTCOM J-4 Mobility Division, the director of mobility forces, the U.S. Transportation Command Directorate of Acquisition, and U.S. Air Forces Central A-4, to

develop the letter of instruction.

We concluded with the appropriate language in the letter of instruction that dictated that if the cargo met the criteria for tenderable cargo, it must be transported via commercial air. However, if carriers do not bid on the cargo within 48 hours (because of lack of return on investment, carriers may opt not to bid), then it will be moved by military airlift.

The Theater Express program is a combat logistics multiplier for the CENTCOM area of responsibility and currently delivers 30 percent of all cargo for Operation Enduring Freedom (which receives 85 percent of all of the program's shipments) and Operation New Dawn (which receives 10 percent of its shipments). The cost benefits in comparison to flying military airlift are a matter of simple math. It costs approximately \$2.10 per pound to ship via Theater Express, which is more than by surface transportation but less than by military airlift. In fiscal year 2009, the Theater Express program saved \$984 million over what it would have cost to ship cargo via C-17 or C-130.

During the drawdown in Iraq, we saw firsthand the importance of Theater Express's commercial lift capability. If the Theater Express option did not exist, we would not have been able to close the force without requesting additional military airlift. Using Theater Express also meant that less cargo had to be pushed by ground, which reduced the chances of injuries caused by improvised explosive devices on the roads of Iraq and Afghanistan.

As we continue under the contract phase of the program, Theater Express will remain a vital asset to the logistics fight because of its cost effectiveness, emphasis on performance, reliability, and safety. It also has the additional advantage of reducing aircraft and crew deployment and usage rates on the Air Force's airlift fleet and thus increasing that fleet's lifespan. Simply put, the Theater Express program has proven since its inception to be a combat logistics force multiplier

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The Army Award for Maintenance Excellence

BY CAPTAIN MICHAEL S. LANE

Competing for the Army Award for Maintenance Excellence helps improve maintenance unit performance and esprit de corps.

It is no secret that competition motivates individuals and groups to assess themselves and improve. Because competition can cultivate superior performance, the Army has traditionally encouraged competition among its ranks in an effort to push Soldiers to improve themselves and their organizations.

In the maintenance realm, the logistician's version of the Best Ranger Competition is the much coveted Army Award for Maintenance Excellence (AAME). Conducted annually, the AAME competition is a superb tool for senior leaders to use to both assess and improve maintenance operations at the unit level. Despite its low visibility and limited participation, the AAME serves as a model of how competition can improve the standards that units uphold.

The AAME Program

The AAME program was created to annually recognize Army activities and units that have demonstrated excellence in maintenance operations. The primary objectives of the program are to assess the maintenance component of unit readiness, improve efficiency, recognize outstanding unit maintenance accomplishments, and improve field maintenance readiness. Each year, a unit may compete in the small (10 to 100 authorized personnel), medium (101 to 300 authorized personnel), or large (301 or more authorized personnel) categories. Each Army command may nominate only six units to compete for the award. This typically creates subcompetitions at lower echelons, allowing units to compete within divisions, brigades, and battalions.

A mechanic with D Company, 634th Brigade Support Battalion, Illinois Army National Guard, removes half-shaft bolts from a high-mobility multipurpose wheeled vehicle at a motor pool in Hohenfels, Germany, during a 3-week annual training mission. (Photo by SSG Kassidy Snyder, Joint Force Headquarters, Illinois National Guard Public Affairs)

During the first stage of the competition, a unit must prepare documentation (based on competition guidelines) that summarizes the maintenance activities of the unit. Developing the "AAME book," as it is called by those who compete, is essentially an opportunity for the unit to highlight all of its accomplishments and praiseworthy activities over the last fiscal year. When the book is complete, it is submitted as a nomination packet to Headquarters, Department of the Army (HQDA), which then selects units for an onsite evaluation.

After a unit is selected for evaluation, a team from HQDA visits the unit and conducts an indepth inspection of all maintenance-related activities conducted by the unit. Some of the areas covered during the inspection include dispatching procedures, services, weapons maintenance, hazardous-materials handling, motor pool operations, master driver programs, and nuclear, biological, and chemical room operations.

The Program's Benefits

The AAME competition is valuable to unit leaders because it provides them with an opportunity to take an indepth look at their maintenance operations. Although the command inspection is a valuable tool for fixing deficiencies, the AAME program forces competitors to examine in great detail every aspect of the maintenance operation, including areas commonly overlooked by command inspections.

With each command wanting its subordinate units to win the competition at the Army level, inspection teams in echelons below HQDA typically are composed of the most knowledgeable and skilled experts in the command. For example, in fiscal year 2009, the U.S. Forces Korea inspection team consisted of six individuals with over 100 years of combined experience in maintenance operations. This gave competing units the opportunity not only to be critiqued but also to receive guidance on methods of improvement from experts in maintenance operations.

Command interest is one of the primary catalysts for a unit in striving to improve. This is true in any work environment; however, the aspect of unit pride in competition is a second motivating factor that contributes to improvement. Competing in the AAME truly unifies a unit toward a single goal—victory. Results vary on a case-by-case basis, but the common factor among competitors is that the entire unit shares

a stake in contributing to maintenance excellence at the unit level. This promotes esprit de corps and encourages each Soldier to contribute to the unit's improvement.

A Lack of Publicity

The AAME program's biggest weakness is its lack of visibility. The program itself does not have a website that summarizes it clearly and concisely. The only available information on the Internet is on the Ordnance Corps and School website, and the regulation covering the program provides limited detail. The lack of easily accessible information on the AAME program is its largest flaw since this limits the number of participating units.

Units that do not participate in AAME miss the benefits they would gain if they competed. This is not only because they will not be visited by experts but also because AAME encourages parent units to assist subordinate units in improving their operations. Units with proactive chains of command that provide hands-on help for competing units are enthusiastic about the competition.

If more visibility and awareness of the AAME program allows for more participation at the company level, subsequently resulting in more involvement from parent units, the Army as a whole will benefit. If more units examine themselves and fix their deficiencies through competition in programs such as AAME, logistics and technical capabilities will improve across the board.

For the Army as a whole to gain the most benefit through this program, the manner in which commands encourage subordinate units to participate in the AAME program must be reassessed. This must begin with a stronger publicity campaign within major commands to promote more widespread awareness of the program. Army logisticians who are aware of the program should encourage their units to participate. The Army Training and Doctrine Command should incorporate a short block of instruction on AAME into the basic officer leader and captains career courses so that leaders will gain awareness and encourage their units to participate.

With increased participation throughout the Army, maintenance operations will improve and all Soldiers will reap the benefits of being in units that strive to achieve maintenance excellence.

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Challenges to Maintaining Readiness in a Deployed Environment

BY MAJOR TERRY D. BRANNAN

As every Soldier knows, battlefield losses can impact unit effectiveness and lower morale. Certain types of losses are largely beyond the control of the individual Soldier, the commander, and the unit. However, good leadership, proper predeployment preparation, and solid self-discipline can prevent or significantly limit other losses.

The Army is facing the strain of more than 9 years of constant combat, and it is imperative that it reinforce the measures that are already in place to mitigate losses. Commanders and S-1s should take primary responsibility for the enforcement of predeployment requirements and proactive loss prevention before Soldiers depart their home stations.

Personnel Losses

Before I joined the Soldier Support Institute, my two previous assignments provided me with the unique opportunity to observe unit personnel readiness from both ends of the Soldier pipeline. From July 2005 to August 2007, I served as the operations officer of the San Antonio, Texas, military entrance processing station. From that station, we shipped more than 4,600 Army recruits to basic training each year. From September 2007 to December 2009, I served as the adjutant/S-1 of the 10th Sustainment Brigade, which had an assigned strength of more than 2,500 Soldiers at Fort Drum, New York, and more than 4,400 Soldiers deployed to Operation Iraqi Freedom 09-11.

The 10th Sustainment Brigade's deployed permanent loss statistics were surprising. From December 2008 through the end of August 2009, pregnancy, family issues, and misconduct or legal problems constituted 60 percent of the brigade's personnel losses. Eighty-seven percent of those who left for those reasons were in the rank of staff sergeant or below. The family issues tracked for this statistic included failed family care plans, financial issues that arose because of inadequate preparation, lack of family preparedness, and repeated misconduct of family members.

In contrast, the 10th Sustainment Brigade's casualty losses were just 1 percent of the total personnel losses, even though the brigade spent its entire 12-month deployment supporting the Multi-National Division-Baghdad area of operations.

It may be impossible to entirely avoid losses caused by pregnancy, family issues, and misconduct or legal problems. However, commanders' and S-1s' consistent and thorough application of existing doctrine and regulations for predeployment readiness can substantially reduce the occurrence of these types of losses.

Predeployment Readiness

Units typically have at least 12 months to complete predeployment activities. During this time, company commanders and battalion and brigade S-1s, in particular, must be especially diligent in executing the personnel readiness management (PRM) responsibilities and predeployment checklist prescribed by Field Manual (FM) 1-0, Human Resources Support.

FM 1-0 says that the management of personnel readiness "involves analyzing personnel strength data to determine current combat capabilities, projecting future requirements, and assessing conditions of individual readiness." Units must perform PRM on a constant basis since they cannot quickly overcome an unforecasted loss of a large number of Soldiers.

FM 1-0 details the many predeployment readiness responsibilities of the S-1. A successful unit predeployment readiness plan begins with a standing operating procedure detailing what the S-1 must do before deployment. Working with the company commander and first sergeant, the S-1 should focus on the Soldier Readiness Program, individual Soldier readiness, legal preparedness, medical readiness, and the unit status report.

PRM must be included in all operation orders and operation plans, and the S-1 must aggressively execute Soldier Readiness Program requirements, allocating time to conduct regular, reoccurring Soldier personnel readiness maintenance events.

Simultaneously, the S-1 must carefully manage Soldier readiness processing to validate individual readiness and ensure visibility through updates to appropriate systems and databases. As the S-1 monitors the personnel readiness status (current and projected) of subordinate personnel and units, including key leaders and critical combat squads, crews, and teams, he must routinely advise the commander of each unit's condition.

Individual Readiness

At the individual Soldier level, the key to reducing permanent losses once downrange for reasons other than medical and casualty is predeployment education and training. Commanders must mandate and enforce Soldier attendance—and encourage in the strongest terms the participation of spouses—at financial readiness classes and the family predeployment briefing provided by the family readiness group. Commanders also must ensure that their Soldiers establish wills and powers of attorney, receive and are briefed on deployment handbooks for families, and

THE FUNCTION OF THE BRIGADE S-1 SECTION IS TO PLAN, PROVIDE, AND COORDINATE THE DELIVERY OF HR SUPPORT, SERVICES, OR INFORMATION TO ALL ASSIGNED AND ATTACHED PERSONNEL WITHIN THE BRIGADE AND SUBORDINATE BATTALIONS AND COMPANIES. THE BRIGADE S-1 IS THE PRINCIPAL STAFF ADVISOR TO THE BRIGADE COMMANDER FOR ALL MATTERS CONCERNING HR SUPPORT.

—FIELD MANUAL 1-0, HUMAN RESOURCES SUPPORT

fulfill the deployment cycle support requirements that deal with family readiness.

Based on my experience in the 10th Sustainment Brigade, I recommend that commanders verify Soldier financial readiness and triple-check family care plans to confirm that they are truly viable. Commanders also must ensure that rear detachment commanders and command sergeants major are properly trained to help families during a deployment. This Army-provided support network may be the last defense against an otherwise unnecessary personnel loss.

Soldier readiness is a collective effort. The Soldier must take primary responsibility for his own preparedness. S-1s and command sergeants major run a close second in ensuring that every Soldier in the unit has completed the predeployment requirements.

The unit status report at the company level is one of the most important tools to measure and build readiness. This level of leadership and organization has the most impact on an individual Soldier's readiness and his willingness to leave the comforts of home and deploy to combat. The team leader, squad leader, platoon leader, and company commander train and make ready for combat the individual Soldiers in their charge. If genuine, hands-on, involved leadership and discipline are lacking at the company level and below, unit and individual readiness will be impaired or absent altogether.

Serving as a brigade S-1 is a challenging and rewarding experience in any type of brigade, but it is most challenging in a sustainment brigade. For the sustainment community, focusing on readiness at the company level is especially important. The sustainment brigade is the most modular of all the brigades in today's Army. The task organization of its company-level-and-below units is constantly changing, even while deployed.

As a result, the sustainment brigade S-1 has no direct oversight of the personnel readiness of most of his assigned units before they arrive in theater, which makes this mission particularly demanding. Creating readiness at the company level before deployment is therefore crucial in sustainment units.

Enforcing Readiness

Commanders and S-1s must not hesitate to enforce readiness standards through all means available, including through a bar to reenlistment, a flag, a chapter from the Army, the evaluation reporting system, and coun-

seling forms. Once the S-1 has developed the PRM execution plan and standing operating procedure and coordinated with the company leaders, it is the duty of those company-level leaders to get their Soldiers ready.

When a Soldier's conduct, performance, and readiness are below the standard, the leader must notify the Soldier of his deficiencies. According to Army Regulation 635-200, Active Duty Enlisted Administrative Separations, commanders must "make maximum use of counseling and rehabilitation before determining that [the Soldier] has no potential for further useful service and, therefore, should be separated."

When all efforts to help the Soldier have failed, preparation for an administrative discharge is required and sends a final warning: Improve your performance and readiness or face discharge. Ultimately, discharge prior to deployment may be in the best interest of the unit.

The Fiscal Year 2008-2010 Active Component Manning Guidance mandates a minimum assigned strength of 95 percent at latest arrival date and 85 percent deployed strength for sustainment units and other deployed battalions, companies, or detachments. This does not leave room for losing Soldiers for avoidable reasons while deployed. As Army Regulation 635-200 says, Army leaders at all levels bear the responsibility "to provide purpose, direction, and motivation to Soldiers."

Enforcing all standards all of the time goes a long way in creating and maintaining readiness. FM 6-22, Army Leadership: Competent, Confident, and Agile, says, "Leaders who consistently enforce standards are simultaneously instilling discipline that will pay off in critical situations. Disciplined people take the right action, even if they do not feel like it."

PRM exists to create and maintain individual and unit readiness, but PRM requires discipline from leaders and Soldiers for effective execution. Every Soldier is important and must realize that he is responsible for getting himself ready and staying ready for combat. Our proud Army deserves this effort.

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Exercise Positive Strike

BY COLONEL KURT J. RYAN AND CAPTAIN MATTHEW K. FERGUSON

The 10th Sustainment Brigade conducted an off-post culminating exercise to ensure that it was capable of conducting full-spectrum operations.

When the 10th Sustainment Brigade leaders set out to prove that the brigade was capable of short-notice, full-spectrum operations, they planned an exercise with a construct and design that were more complicated than the local training area could accommodate. The brigade needed to train on providing an expeditionary theater-opening capability for the Army Forces Command in support of contingency operations.

The 10th Sustainment Brigade commander wanted to emphasize training on all systems and capabilities across the battalion formations, including sustainment, signal, Soldier support, and military police operations. He wanted to draw on the expertise of the Sustainment Center of Excellence at Fort Lee, Virginia, to help train and certify his force. The brigade's concept involved a complex off-post training exercise that emphasized real-world deployment tasks not routinely associated with the Iraq or Afghanistan counterinsurgency areas of operations.

Senior staff officers review the analog tracking board and examine the distribution problems associated with the Caspian Sea mission command scenario.

Moving the Troops

The culminating exercise, named Positive Strike, commenced with the movement of multiple elements of the brigade from a premier force-projection platform at Fort Drum, New York, to Fort Indiantown Gap, Pennsylvania, and to Forts Eustis, Lee, and Pickett in Virginia. The exercise started with a 96-hour alert and notification order and used out-load support teams to facilitate forcible-projection tasks associated with short-notice or no-notice alert, marshal, and deploy tasks. All operations required capabilities identified in the new sustainment brigade full-spectrum operations mission-essential task list.

Instead of moving the troops by commercial aircraft, the transportation integration division of the brigade support operations office designed a complicated multi-modal force projection scheme of maneuver. With this plan, 12 separate march serials were used to deploy hundreds of personnel across 5 states using Army rail operations, Army boats, and even the Amtrak railroad network.

The early-entry element served as the advance party, conveying to Fort Eustis to conduct ship-to-shore loading and discharge operations on a logistics support vessel provided by the 7th Sustainment Brigade. After discharging on the James River, the early-entry element conducted onward movement to Fort Pickett to occupy a forward base, command follow-on forces, and practice reception, staging, onward movement, and integration.

Conducting the Exercise

The expeditionary brigade headquarters established a tactical operations center, force protection operations, and life support operations. The scenario was set in the Caspian Sea region and simulated movement into an austere theater. The training focused on mission command, warrior tasks, battle drills, and field craft skills.

To maximize exercising mission command, the brigade turned to Fort Lee's





The 10th Sustainment Brigade expeditionary command post before final camouflage and force protection measures were applied.

Logistics Exercise and Simulation Directorate (LESD), a subordinate element of the National Simulation Center. LESD provided exceptional simulation support by adding realism, stress, and rigor through a partnered design, planning, and execution process.

Despite the relatively short timeline (just over 2 months from planning to execution), LESD and the 10th Sustainment Brigade planning staff together produced an exercise scenario tailored to meet the unit's unique training objectives. Rather than developing a traditional high-intensity conflict or counterinsurgency scenario, the team built a logistics scenario based in a semipermissive region that mirrored recent humanitarian support and disaster relief missions in Haiti and Pakistan.

LESD's knowledgeable operators and planners assisted the unit in creating a scenario to focus the brigade staff on its specific sustainment mission in the complex and evolving theater of operations. They did this using the Joint Deployment Logistics Model (JDLM), a powerful computer program designed to simulate sustainment operations from company- to theater-level commands.

One of JDLM's many strengths is its ability to pass information to the Battle Command Sustainment Support System (BCS3). Using BCS3 in the tactical operations center ensured that the units being trained and the exercise control cell maintained a logistics common operational picture.

JDLM provides a level of information fidelity far beyond what most end users expect. It is capable of replicating all Standard Army Management Information System information. It can track troops and equipment locations and status, supply-stockage levels, and personal data, including names, ranks, blood types, and

other details for Soldiers operating in a simulation.

The baseline scenario used for the 10th Sustainment Brigade focused on logistics tracking and forecasting theater requirements, including classes I (subsistence), III (petroleum, oils, and lubricants), V (ammunition), and IX (repair parts) requirements. The staff provided aid and support to displaced civilians, conducted multiple mission-analysis drills, monitored movements, maintained visibility of all commodities and stocks, exercised contingency contract services, and rehearsed multiple unit battle drills and boards, bureaus, centers, cells, and working groups—all driven by injects (scenario changes) from the exercise control cell.

Simulating the Mission

To support the 10th Sustainment Brigade at their field site, LESD dispatched its entity resolution federation team, which is dedicated to supporting stand-alone brigade-and-below-level exercises. The team deployed with a full simulation suite (nine computers and other necessary hardware) to the field training site. The 10th Sustainment Brigade provided a dedicated network switch for the simulation network, reliable field power for the computers, and an exercise control cell tent in which the team operated.

The Positive Strike exercise marked the first time in recent history that LESD deployed hardware and support teams to an austere operating field site, complete with concertina wire and deployable rapid assembly shelters, and made use of a tactical signal company and a recently fielded containerized kitchen.

During the exercise, LESD personnel operated the exercise control cell on site, providing the 10th Sustainment Brigade with the flexibility to make short-notice adjustments to the simulation. This met the



The 10th Sustainment Brigade deputy commander conducts a staff huddle while exercising mission command.

commander's intent of developing adaptive, creative leaders, who routinely think and solve complex tactical and sustainment problems.

Because tactical support equipment is portable, staff training exercises and command post exercises can be conducted at various locations. In contrast, constructive simulation exercises are traditionally supported in fixed battle command training centers, which are brick-and-mortar facilities with existing infrastructure to support system architecture requirements.

Moving the simulation architecture to a tactical field environment presented some unique challenges related to generator maintenance, maximum possible power output, communications, and weather effects. However, the result was an exercise that blended a traditional field training exercise with a constructive simulation, providing a greater level of realism and stress.

The exercise validated the concept of integrating field and simulation training environments for holistic scenarios at the brigade level and below. The use of the constructive simulation proved to be effective and efficient, with a reduced cost and a high level of satisfaction for the unit. Given LESD's flexibility and the benefit of joint simulation and live training, training exercises such as this will likely become the norm in the future as the Army continues to explore ways to make training more effective and cost efficient.

The culminating exercise produced a headquarters capable of deploying on short notice anywhere in the world in support of full-spectrum operations. The 10th

Sustainment Brigade has been certified as the Nation's sustainment quartering party of choice, with a battle staff that is competent in all battlefield environments, including offensive, defensive, stability, and support to civil authorities. It is prepared to excel, fight, and win in any expeditionary environment.

The commander of the 10th Sustainment Brigade evaluated the exercise, saying, "LESD enabled our Soldiers and leaders to exercise mission command by incorporating complex simulation right in the middle of our field training exercise, affording us to meet our training objectives. We achieved our certification due to all the support provided us. It was responsive, tailored to our needs, and affordable. We are indebted to their professionalism."

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The 101st Sustainment Brigade Tackles Mailroom Operations

BY SPECIALIST DONTÉ L. GORDON

In less than 24 hours, key leaders of the 101st Sustainment Brigade helped the 130 postal workers at Bagram Airfield, Afghanistan, distribute nearly half of a 135,000-pound holiday mail load to area forward operating bases throughout the country. The operation was part of the sustainment brigade's professional development training and provided additional support to mail handlers during the busy holiday mailing season. Brigade leaders spent time learning about military postal operations and assisting in the distribution of the increased mail load that arrived at the Bagram Airfield Mail Distribution Center in December.

Warrant Officer 1 Thaddeus Lumar, the mail movement officer for the 510th Human Resources Company, 101st Special Troops Battalion, 101st Sustainment Brigade, briefed leaders before the work began. This briefing included taking leaders to each area of the flight line involved in the distribution process and explaining their roles.

The team then was separated and assigned to specific areas of the distribution center. The command sergeant major of the 101st Special Troops Battalion operated the forklift, transporting bundles of mail to the key leaders for distribution. Meanwhile, the officers lifted and sorted packages alongside the civilian workforce of Bagram Airfield.

The Soldiers worked diligently throughout the distribution process to complete the mission. "It was great to see the rest of the staff get out there and really understand how important the mail distribution [is and how it] works," said Lieutenant Colonel Robert Davis, the commander of the battalion. "Everyone was learning a lot, as well as asking some very good questions." Davis said many of the noncommissioned officers asked the mail distribution staff questions that are usually asked by their Soldiers.

While some Lifeline leaders distributed packages, others took on letter distribution responsibilities. "Attention to detail is much required for that specific task," said Sergeant Major Doug Emmons, the operations sergeant major for the 101st Sustainment Brigade. "It's easy to have a letter in your hand and just throw it in the wrong delivery bag. Yet, at the same time, you have to think about that Soldier who's waiting, and that's what motivates you to do the right thing."

When the workday was completed, the task force had distributed 135,000 pounds of mail and the brigade's leaders had gained a newfound respect for the 130 postal workers who handle this hefty mail task every day of the year.



Key leaders of the 101st Sustainment Brigade helped to sort and distribute bundles of mail to area forward operating bases throughout Afghanistan last December. (Photo by SPC Donté L. Gordon, 101st Sustainment Brigade PAO)

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From Manufacturer to Forward Operating Base

BY COLONEL JOHN C. WALLER

This article examines the resilience of the Army's class IV supply chain and analyzes differences between a Department of Defense supply chain and a for-profit business supply chain.

You are at your desk on a gloomy afternoon when your boss rushes in to say there has been an explosion at a port in South Carolina and terrorists are threatening to use dirty bombs in cities across the United States. You and your colleagues rush to the closest television set and turn on CNN. Text on a red banner scrolls across the bottom of the screen describing the detonation of a small nuclear device at the Port of Charleston, and the announcer reports that cargo on ships at two other ports in Pennsylvania and New York have triggered radiation detectors, indicating the possible presence of nuclear devices.

The Coast Guard has sealed off the affected ports, the Navy and Air Force have scrambled their assets to form a defensive perimeter off of the east coast, and the Department of Homeland Security is considering closing all ports in the United States until it determines the extent of the threat. Is this another 9/11, with boats instead of airplanes delivering terror to our doorstep? As you ponder this, the television goes dead and all power goes out in the building. You look out of your office window and the city is dark. After 10 years, America is again under attack.

It is not implausible that the next attack on the United States will be a highly planned and synchronized operation with near-simultaneous attacks on several different targets. While there is never a good time to be attacked, there are certainly worse times. What if the next attack occurs during a critical juncture in our overseas contingency operations in Iraq and Afghanistan?

While we are executing two simultaneous combat operations in the Middle East—drawing down personnel and equipment in Iraq and building up forces and supplies in Afghanistan—in addition to all of the other military commitments the United States has around the globe, are our military supply chains resilient enough to absorb the impact of an event that closes down all traffic into and out of seaports across the United States?

The intent of this article is to examine the impact, if any, to Soldiers in Afghanistan should a terrorist event in the United States close our seaports for an extended period of time.

Building Combat Infrastructure

Imagine moving the entire population of Annapolis, Maryland, or Leavenworth, Kansas (cities with more than 35,000 residents), halfway around the world and resettling them in a harsh desert or mountain environment with few roads, no infrastructure, no buildings—nothing but stark, barren terrain.

Although we have numerous base camps and forward operating bases (FOBs) in Afghanistan already, to accommodate the influx of a small city's worth of troops, we must expand and improve upon what currently exists and create what is not yet in place. Living quarters, dining facilities, latrines, hospitals—the gamut of life support infrastructure required to support tens of thousands of Soldiers—must be built.

Much of this infrastructure requires class IV (construction and barrier materials). Almost all construction materials, from lumber and plywood to plumbing supplies and heating, ventilation, and air-conditioning equipment, fall into the class IV category. Concertina wire, pickets,

fencing, sandbags, and other force protection materials are also class IV.

Moving this amount of lumber and related building and force protection materiel requires the procurement of thousands of 20- or 40-foot containers from either the continental United States (CONUS) or offshore suppliers and the movement of these containers to the point of need in Afghanistan.

Military and Private Sector Supply Chains

According to Ronald H. Ballou in *Business Logistics/Supply Chain Management*:

The *supply chain* encompasses all activities associated with the flow and transformation of goods from the raw materials stage . . . through to the end user, as well as the associated information flows. *Supply chain management* [SCM] is the integration of these activities, through improved supply chain relationships, to achieve a sustained competitive advantage.¹

A simple way to think about a supply chain is to envision a product in the hands of a consumer at the checkout register of any retail store and imagine how that product got there. Think about the entire process, from raw-materials extraction to transformation at a plant or mill, movement of these materials to a manufacturing plant, assembly of the product's various components, packaging and further movement to a warehouse or distribution center, delivery to the retail store's loading dock, and finally stocking on the store's shelves.

All of the steps in a product's life cycle (including forecasting demand or determining requirements, research and development, procurement, purchasing, manufacturing, distribution, pricing, marketing and sales, inventory management and control, finance, logistics, and even customer service and information systems) are critical pieces of the supply chain whole.

Similarly, the Army uses an end-to-end, enterprise approach to logistics support. One 2008 Army Posture Statement information paper explains the logistics enterprise in this way:

The Logistics Enterprise consists of the logistics architecture, organization, personnel, processes, and governance and is the operating environment that enables the holistic approach to sustaining the Army. . . . Logisticians are able to provide better support to the warfighter by maintaining visibility, control and accountability

and directing the distribution of assets in supply chains that span the globe.²

The Army's enterprise approach to logistics support and Ballou's privatesector-focused definition of SCM have similarities, but there is a marked contrast between how a for-profit business leader and a military supply chain professional view the concept of supply chain resilience and determine the most critical links of their respective supply chains.

Resilience is "the positive ability of a system or company to adapt itself to the consequences of a catastrophic failure caused by power outage, a fire, a bomb or similar event."³ Flexibility, adaptability, redundant systems, and a culture of resilience are critical for overall supply chain resilience and determine whether a company succeeds or goes out of business when confronted by a significant disruption anywhere along its supply chain—on the production line, in the distribution system, or when a supplier fails to provide raw materials to the plant.

Private-sector businesses expend varying levels of energy and focus on the resilience of their suppliers, manufacturing processes, end-to-end financial systems, and critical distribution links in their supply chains. In order to meet the needs of the commander on the battlefield, the Army more narrowly focuses on specific downstream supply chain activities than on activities farther up in the supply chain, such as raw materials extraction and manufacturing.

The Army's attention is on ensuring an uninterrupted supply of goods, distributing those assets, and maintaining visibility of supplies in the pipeline. In general, however, distribution—moving supplies over "the last tactical mile," where the enemy can affect mission success—is often the greatest challenge in a military supply chain. Commercial businesses obviously are not faced with this particular challenge.

The Army logistics system is not a private business whose main goal is the bottom line; its success is not measured in dollars. Going out of business is not an option, and success means providing the right item in the right quantity to the right unit at the right time to ensure the maneuver commander has the flexibility to apply maximum combat power at the time and place of his choosing.

It has been said that logistics alone cannot guarantee victory on the battlefield, but lack of logistics can all but guarantee failure. Inability to overcome supply chain shortfalls in business may result in lost profits,

¹ Ronald H. Ballou, *Business Logistics/Supply Chain Management*, 5th Edition, Prentice Hall, Upper Saddle River, New Jersey, 2005, p. 5.

² Terry Battle, "Logistics Enterprise," Army Posture Statement 2008 Information Papers, http://www.army.mil/aps/08/information_papers/transform/Logistics_Enterprise.html, accessed on 23 March 2011.

³ "Resilience (organizational)," [http://en.wikipedia.org/wiki/Resilience_\(organizational\)](http://en.wikipedia.org/wiki/Resilience_(organizational)), accessed on 23 March 2011.

decreased market share, or at worst, bankruptcy. Military supply chain failure may lead to battlefield failure and, by extension, the loss of life.

Private-sector businesses seek to maximize supply chain performance in order to gain competitive advantage and increase market share. They emphasize accurate demand forecasting, streamlined manufacturing, efficient inventory management, and maximized distribution processes, and the goal of profit guides their key decisions.

The Army needs a dependable, efficient, successful supply chain, too, but it instead places intense focus and energy on two particular supply chain links: ensuring a dependable supply of goods and timely distribution of supplies to set the conditions for battlefield success. Businesses aim to make money; the Army aims to win our Nation's wars.

Military Logistics Support Structure

At the strategic level, the Department of Defense (DOD) manages several supply chains. Each class of supply, and most individual items within a class of supply, has a distinct supply chain that usually begins with a contracted supplier manufacturing or providing a particular item. The supplier has the responsibility to provide the finished product to DOD. The contract determines the point at which the item enters the military warehouse, depot, or distribution system for subsequent delivery to forward storage points in the combat theater of operations.

While there are dozens of civilian and military players in any DOD supply chain, four of those players are most critical: the Defense Logistics Agency (DLA), Army Materiel Command (AMC), U.S. Transportation Command (TRANSCOM), and Military Surface Deployment and Distribution Command (SDDC). DLA and TRANSCOM are joint organizations; AMC and SDDC are Army organizations.

Most of our Armed Forces' supplies are provided and managed by DLA, DOD's executive agent for supply chain management. DLA "is the Department of Defense's largest logistics combat support agency, providing worldwide logistics support in both peacetime and wartime to the military services as well as several civilian agencies and foreign countries."⁴ It has responsibility for nine supply chains, including six traditional supply chains and three specialized chains.

The traditional supply chains include classes I (subsistence), II (clothing and individual equipment), III (petroleum, oils, and lubricants), IV, VII (major end

items), and VIII (medical materiel). The specialized chains include land systems, aviation systems, and maritime systems. A nearly \$37 billion enterprise, DLA provides the military services with over 80 percent of their repair parts, 100 percent of their fuels, food, clothing, and medical supplies, and nearly all of their construction materials.

Subordinate to DLA is the Defense Distribution Center, an organization that stocks well over 3 million items costing nearly \$98 billion. While some commodities may bypass CONUS distribution centers and go directly to a port of embarkation for sea or air movement to the combat theater, distribution centers are the point where many commodities officially enter the military distribution system from the military industrial base. From these distribution centers, supplies are distributed worldwide with affixed radio frequency identification tags to maintain visibility from the warehouse through the entire distribution network to the FOB.

The other major logistics supplier for the Army is AMC. AMC "is the Army's premier provider of materiel readiness—technology, acquisition support, materiel development, logistics power projection, and sustainment—to the total force, across the spectrum of joint military operations. If a Soldier shoots it, drives it, flies it, wears it, eats it or communicates with it, AMC provides it."⁵

TRANSCOM has the mission to "develop and direct the Joint Deployment and Distribution Enterprise to globally project strategic national security capabilities; accurately sense the operating environment; provide end-to-end distribution process visibility; and responsive support of joint, U.S. government and Secretary of Defense-approved multinational and non-governmental logistical requirements."⁶

"With its people, trucks, trains, railcars, aircraft, ships, information systems and infrastructure, as well as through . . . commercial partners providing 1,203 aircraft and 379 vessels in the Civil Reserve Air Fleet (CRAF) and Voluntary Intermodal Sealift Agreement (VISA), respectively, USTRANSCOM provides the U.S. with the most responsive strategic mobility capability the world has ever seen."⁷ DLA provides the consumable supplies, AMC ensures materiel readiness, and TRANSCOM, DOD's distribution process owner, is responsible for coordinating the movement of those supplies.

Lastly, the mission of SDDC is to "provide expeditionary and sustained end-to-end deployment and distribution to meet the Nation's objectives."⁸ SDDC

⁴ "About the Defense Logistics Agency," http://www.dla.mil/about_dla.aspx, accessed on 23 March 2011.

⁵ "About the U.S. Army Materiel Command," <http://www.amc.army.mil/pa/about.asp>, accessed on 23 March 2011.

⁶ "What is United States Transportation Command?" <http://www.transcom.mil/about/whatIs.cfm>, accessed on 23 March 2011.

⁷ Ibid.

⁸ "What We Do," <http://www.sddc.army.mil/What/default.aspx>, accessed on 23 March 2011.

“is a unique Army command that delivers world-class, origin-to-destination distribution solutions. Whenever and wherever Soldiers, Sailors, Airmen, Marines, and Coast Guardsmen are deployed, SDDC is involved in planning and executing the surface delivery of their equipment and supplies.”⁹

DLA Troop Support

DLA’s executive agent for the class IV supply chain is DLA Troop Support. In keeping with an enterprise approach to logistics support, DLA Troop Support has transitioned “from managing items to managing the supply chain.”¹⁰ DLA Troop Support uses a combination of long-term contracts with integrated suppliers and prime vendors, often with direct vendor delivery as the means to bring supplies into the military logistics system.

“Prime Vendor” is a DLA-developed supply chain management concept that has improved the efficiency and effectiveness of its logistics support. “Prime Vendor eliminates the layering of supplies at multiple echelons and shifts inventory, inventory management, transportation, and personnel costs from the Government to commercial firms. Prime Vendor programs take advantage of the experience of commercial vendors, whose profit-based business practices demand lean inventories and rapid deliveries.”¹¹

Direct vendor delivery is “a materiel acquisition and distribution method that requires vendor delivery directly to the customer.”¹² Direct vendor delivery is not a concept employed only in peacetime; rather, DLA Troop Support has contracts in place with vendors that require delivery to predetermined locations, whether that location is a warehouse in CONUS, a warehouse in Kuwait, or a FOB in Iraq or Afghanistan.

The Class IV Supply Chain

Dozens of items fall into the class IV category: lumber, concertina wire, metal pickets, sandbags, plumbing and roofing supplies, and HESCO protection barriers, to name a few. Each has its own particular supply chain with numerous suppliers, contracts, and leadtimes for production and delivery of that item. For simplicity, this article focuses on lumber.

The first step in virtually any supply chain is determining requirements. Retailers use sophisticated forecast models, point-of-sale data, and to a lesser extent, historical data to predict consumer demand 3, 6, or 12 months out. The military, specifically the Army, is not much different.

The old-school method of determining requirements

involved using mammoth requirements tables and looking up the amount of plywood and other lumber required based on the level of intensity for a given combat operation, the geography and climate, the number of troops to be supported, and other factors. These books of tables have been mostly supplanted by computer programs with updated data tables and algorithms. In many cases, the Army uses recent historical data for such estimates. For example, to determine the amount of lumber needed for the Operation Enduring Freedom (OEF) surge, we may have referred to how much lumber and associated materiel we used during the troop surge for Operation Iraqi Freedom.

The requirement for class IV supporting the OEF surge, including lumber, ran into the thousands of 20-foot equivalent units (which are units of cargo capacity often used to describe the capacity of container ships). Where did we get this much lumber? Strategic planners at DLA determine the amounts and types of lumber already on hand and where it is in the supply chain—in theater stocks, in depots and warehouses closest to the fight (Kuwait or Europe), in other storage locations worldwide, and due in to military supply activities from external suppliers. DLA Troop Support then contracts for the amount that cannot be sourced from on-hand stocks.

Once firm requirements are determined (and most importantly, funds are allocated), contracts are written, submitted, bid upon, finalized, and executed. These contracts specify the amounts of commodities to be delivered over time, with stipulations as to where the items will be delivered (to a CONUS or outside CONUS defense distribution center, a port of embarkation, a tactical distribution center in Afghanistan, or even a specific FOB).

In this manner, DLA Troop Support, and by extension DLA, buys capacity and places the burden of a potential supply chain disruption on the contracted vendor. If the vendor does not deliver the specified amount of class IV to a particular location at a specific time, then the vendor suffers financial penalties. Therefore, the forces at work in the marketplace work to the military’s advantage. Vendors who fail to honor their contracts may find themselves barred from future contract negotiations.

It is generally most cost efficient to obtain commodities as close to the point of consumption as possible. DLA Troop Support has contracts in place with lumber providers in CONUS, but it also has the ability to grant individual awards to procure materials in Europe or elsewhere. This has the benefit of shorter distances to

⁹ Ibid.

¹⁰ “About DLA Troop Support,” <http://www.dscpl.dla.mil/aboutdscpl/index.asp>, accessed on 23 March 2011.

¹¹ Velocity Management Team, “Prime Vendor: Velocity Management at DLA,” *Army Logistician*, January–February 1998, p. 4.

¹² “Direct vendor delivery,” The Free Dictionary by Farlex, <http://www.thefreedictionary.com/direct+vendor+delivery>, accessed on 3 March 2010.

move the product, hence shorter delivery times and lower transportation costs. Having multiple suppliers in various locations provides flexibility and a good kind of redundancy.

Once class IV enters the military distribution system, the key supply chain link is distribution to the point of use. Assuming the lumber is procured in CONUS, it will move by civilian contracted carrier either to an Army distribution center or to a port of embarkation. Based on the amount and priority, and given its bulk and weight, lumber usually travels by commercial sea vessel.

According to SDDC, as of early 2010, sustainment moves by sea from Norfolk, Virginia, averaged 34.4 days transit time to the Port of Karachi, Pakistan. TRANSCOM and SDDC play key roles for transportation carrier contracting, coordination, and end-to-end visibility using various tracking systems. In emergency situations or when it is determined to be a high priority, class IV may move by air or multimodal means.

If DLA Troop Support sources lumber from suppliers in Europe, from either Germany or Scandinavia, a similar process is used for onward movement into theater and subsequent distribution to the end user. The lumber likely enters the military distribution system through the Defense Distribution Depot Europe (DDDE) in Gernersheim, Germany, and moves by ground from DDDE along the Northern Distribution Network (NDN) into theater using contracted carriers.

At the outset of OEF, most supplies were moved into Afghanistan by ground on southern routes from the Port of Karachi or by air from various staging bases in the U.S. Central Command area of operations. Since then, to increase flexibility and redundancy, logisticians have looked for alternate routes to avoid the bottleneck at the single seaport of entry and the heavy traffic on the southern ground routes.

The NDN, with various spurs traversing parts of Latvia, Georgia, Azerbaijan, Russia, Kazakhstan, and Uzbekistan, has become much more robust than in the past, offering additional flexibility for supply distribution into theater. According to DLA Troop Support, more than 80 percent of all class IV now moves into Afghanistan along this route.

Therefore, regardless of whether it moves from CONUS or Europe, lumber enters Afghanistan primarily by ground and proceeds to either forward storage points or to a specific FOB. Virtually all ground movement of supplies into Afghanistan is accomplished by local civilian contracted carriers, which is a supply chain link fraught with in-transit visibility challenges.

DLA Troop Support coordinates and executes the

contracts for class IV after a determination of requirements. These contracts are a combination of long-term contracts with integrated suppliers, performance-based logistics, or end-state contracts, and various Prime Vendor subcontracts that ensure the required supplies are delivered in the correct amounts, to the correct locations, to the correct specifications, and at the specified times.

Each supplier has the responsibility to meet the requirements of its given contract, so DLA Troop Support focuses on contracting rules. Among the tools available to DLA Troop Support at this point in the class IV supply chain are performance-based logistics, surge clauses, and close relationships with industry partners. DLA Troop Support is not in charge of its suppliers' supply chains per se, but serving as the executive agent for the end-to-end supply chain for all of the services' class IV means that it must plan for the unexpected and have layered, flexible contracts and many suppliers in order to ensure the uninterrupted supply of commodities.

The combination of organic military capabilities, third-party logistics providers, flexible contracts, surge clauses, and appropriate contracting rules provides DLA Troop Support, and by extension DLA, with supplier flexibility and redundancy. By leveraging organic assets and additional contract carriers—rail and truck companies, the Civil Reserve Air Fleet, and other contract air carriers, as needed—TRANSCOM provides distribution resilience.

Supply Chain Resilience

Let's return to the terrorist scenario outlined at the beginning of this article. Given what we know about the class IV supply chain supporting OEF, what would be the impact on operations in Afghanistan, if any, of a significant CONUS port closure?

In his book *The Resilient Enterprise: Overcoming Vulnerability for Competitive Advantage*, Massachusetts Institute of Technology professor Dr. Yossi Sheffi describes the characteristics of a resilient supply chain and "examines the ways in which companies can recover from high impact disruptions."¹³ While geared to the private sector, his concepts are useful for examining a military supply chain.

All supply chains are vulnerable; what varies is to what degree they are vulnerable and to what level of disruption. Dr. Sheffi developed an enterprise vulnerability map, a 2-by-2 matrix with disruption probability on the y-axis (low to high) and consequences on the x-axis (light to severe). A terrorist attack leading to port closure would fall in the bottom right quadrant: low

¹³ Yossi Sheffi, *The Resilient Enterprise: Overcoming Vulnerability for Competitive Advantage*, The MIT Press, Cambridge, Massachusetts, 2007, preface.

probability and severe consequences.

According Dr. Sheffi, in the event of a low probability, severe disruption event, leaders should ask several questions regarding the operating consequences. Two critical questions when assessing vulnerability are what can be done to reduce the probability of a disruption and what can be done to reduce the impact of the disruption.

Actions to reduce the probability of a port closure, whether intentional (terrorist attack, dockworkers' strike) or unintentional (hurricane, accidental oil spill), relate specifically to port security and resilience and are beyond the scope of this article. However, thinking ahead of time about what can be done to reduce the impact of this kind of disruption is critical to designing a resilient military supply chain.

The two critical links in the class IV supply chain are dependable supply and focused distribution. A port closure is a blow to both of these supply chain links. For the private sector, a port closure means lost dollars and a potentially significant economic impact. For an Army at war in two theaters, it means potential mission failure on the battlefield and possibly fallen Soldiers.

Class IV for OEF originating in CONUS travels primarily by sea. Port closures would initially preclude this transportation mode and leave two options: using scarce military airframes or sourcing the class IV from outside of CONUS. If only east coast ports are closed, TRANSCOM, in concert with DLA, SDDC, and contracted suppliers, would reroute commercial trucks carrying class IV from their east coast destinations to either gulf coast or west coast ports.

In the event of extended CONUS port closures, DLA Troop Support can leverage vendor contracts for lumber in Germany and elsewhere in Europe, thereby exhibiting supplier flexibility and redundancy to ensure an uninterrupted source of supply. These offshore suppliers would provide the lumber and move it to DDDE for further distribution through preplanned transportation lanes from Europe to Afghanistan (by air, sea, the NDN, or multimodal means).

DLA Troop Support routinely assesses requirements and capacity to meet those requirements and factors in the increased time and transportation costs that may be incurred. For example, shipment from a west coast port versus an east coast port adds 4 to 5 days to the travel time to Karachi; moving stocks from Kuwait to Afghanistan takes approximately 3 to 4 days by truck; moving stocks from DDDE to Afghanistan using the NDN takes 80 to 90 days; and direct vendor delivery takes an average of 30 to 60 days.

Other important supply chain resilience characteristics are responsiveness, collaboration with industry partners, redundancy, and supply flexibility. Surge clauses in contracts and multiple suppliers provide responsiveness to unforecasted or recently identified

requirements. Having redundant vendors ensures flexibility and uninterrupted supply in the event one or more suppliers cannot meet requirements. Holding this all together is the importance of coordination, communication, and collaboration with industry partners.

Another one of Dr. Sheffi's characteristics of supply chain resilience is the building and fostering of a culture of resilience within the organization. This is where the military often excels. Unlike many for-profit organizations, Soldiers and Department of the Army civilians are trained from their first day in service to be flexible and adaptable, to expect the unexpected, and to plan for unforecasted disruptions.

The Army's culture of contingency plans and what-ifs with a constant focus on security in an unpredictable, always-changing environment is what sets it apart from most private businesses. Most successful companies have resilient supply chains, and many businesses have improved their supply chain resilience—and especially their supply chain security—since the terrorist attacks of 11 September 2001. Unfortunately, the concepts of supply chain resilience and security are still overlooked in many private organizations.

Closure of CONUS ports caused by a terrorist event would have a minimal impact on the class IV supply chain supporting combat operations in OEF. While private-sector businesses focus on the links of their supply chains yielding the greatest earnings potential, the Army applies the greatest focus to the supply chain links that most directly affect battlefield success or failure. Those links include dependable supply and consistent, predictable distribution. Flexible contracts, surge clauses, redundant suppliers, direct vendor delivery, and close, longstanding relationships with multiple suppliers ensure the continued flow of class IV to the theater.

TRANSCOM and SDDC have the strategic, operational, and tactical flexibility to overcome a disruption to CONUS sea lines of communication. While land routes into Afghanistan (the last tactical mile) remain challenging, the use of the NDN and continued efforts by military logisticians to expand land routes in and around Afghanistan continue to ensure reliable means of resupply for class IV and all other classes of supply supporting operations in that country.

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The Sustainment Warfighting Function

BY COLONEL CHARLES L. PARINS, MNARNG

This article discusses the application of the sustainment warfighting function, questions its future, and seeks to further the institutionalization of warfighting function doctrine.

The sustainment warfighting function has undoubtedly been established. Field Manual (FM) 4-0, Sustainment, was published in April 2009, and the Army is refining division-level modified tables of organization and equipment (MTOEs) to reflect approved changes pertaining to all six warfighting functions. In many respects, the Army is heading down the path of institutionalizing the warfighting functions.

What you do not learn from either FM 4-0 or MTOEs is *how* the Army is institutionalizing the warfighting functions. Doctrine describes the methodology; however, at the execution level, the associated benefits as well as the friction points of applying the warfighting function doctrine are more evident. Further application of warfighting function doctrine will undoubtedly be the basis for further debate and reconciliation of that doctrine.

The intent of this article is to leave readers with some considerations for developing their own division staffs based on lessons learned and the friction points my unit, the 34th Infantry Division, experienced while deploying to Iraq to replace the 10th Mountain Division.

Implementing the Warfighting Functions

The introduction to FM 3-0, Operations, states—

FM 3-0 shapes all of Army doctrine, while influencing the Army's organization, training, materiel, leadership and education, and Soldier concerns. But its contents are not truly capstone doctrine until Army forces internalize it. This requires education and individual study by all Army leaders. And it requires more: Army leaders must examine and debate the doctrine, measuring it against their experience and strategic, operational, and tactical realities. They must also recognize that while FM 3-0 can inform them of how to think about operations, it cannot provide a recipe for what to do on the battlefield.

This quote is important for a number of reasons. First, following the warfighting functions is not an institutional technique for many staffs. Consequently, the approach the Army has taken through initiatives at various levels, including from within staffs with respect

to MTOEs, has not fully been implemented. However, the Army continues to show progress toward institutionalizing sustainment as a warfighting function.

When you examine the Iraqi theater of operations through the end of Operation Iraqi Freedom, you can see that Multi-National Corps-Iraq (MNC-I) still operated using C-1, C-4, and C-8 as separate operating staffs, whereas Multi-National Forces-Iraq already operated under the CJ-1, CJ-4, and CJ-8 convention.

In the later phases of our deployment in theater, the corps started to bring together the sustainment functions within their synchronization boards; the deputy commanding general for support at the corps began to bring the C-1, C-4, C-7, and C-8 as well as the surgeon into these boards. This reflected how the staff sections are fundamentally linked for certain operations.

What Is the Sustainment Warfighting Function?

A warfighting function is a group of tasks and systems (people, organizations, information, and processes) united by a common purpose that commanders use to accomplish missions and training objectives. The common purpose of all units within the sustainment warfighting function is sustainment, just as the common purpose for the protection warfighting function units is protection.

Both FM 3-0 and FM 4-0 provide the same definition: "The sustainment warfighting function is related tasks and systems that provide support and services to ensure freedom of action, extend operational reach, and prolong endurance."

Moreover, the sustainment warfighting function is further described as comprising three major subfunctions: logistics, personnel services, and health service support. Sustainment is the provision of the logistics, personnel services, and health service support necessary to maintain operations until the mission is accomplished.

FM 4-0 lists the functional elements of sustainment as supply, field services, transportation, maintenance, general engineering, human resources, financial man-

agement, legal support, religious support, and health service support. Per doctrine, resettlement, internment, and detainee operations also fall under the sustainment warfighting function and include elements of all three major subfunctions.

I will use the previously quoted excerpt from FM 3-0 as the framework for the following discussion. FM 3-0 was published in February 2008, and warfighting functions became doctrine at that time. FM 3-0 gives an idea of how to approach the application of the warfighting functions. It assists in providing general guidance on how to organize around a warfighting function and some direction on leadership and training to synchronize the staff within operations in a warfighting function environment.

Organizing Under the Warfighting Function

When I was initially assigned to the 34th Infantry Division as the assistant chief of staff, G-4, a debate was ongoing within the division about whether the draft MTOE would allow for a separate sustainment warfighting function chief duty position (a colonel) or if the division should make the position a dual-hatted role, whereby the G-4 would be the senior logistician and sustainment chief.

The debate resulted partially because only one O-6 billet was available on the division MTOE and the G-4 was in competition at the Army level with the staff judge advocate for the slot. Needless to say, the staff judge advocate provided the better brief. Ultimately, the decision was made to make the G-4 and sustainment chief a dual-hatted position in the Modular Division 9.1 design.

When preparing for my Operation Iraqi Freedom deployment, I knew I was going to be the assistant chief of staff, G-4 (a position that I could say I was relatively familiar with). However, as I corresponded more with the lieutenant colonel I was replacing, I noticed his signature block read "Sustainment Chief/G-4," with the "sustainment chief" preceding "G-4" in importance. I assumed the position and was subsequently brought somewhat up to speed through a briefing on the future MTOE and the related debate on which staff section would get the vaunted O-6 slot.

Our division commander and chief of staff wanted to explore organizing the division for combat under the guidelines of FM 3-0. So the MTOE debate was put on hold, and our division used the proposed future MTOE to organize for combat based on the six warfighting functions established in FM 3-0.

Early in the process of organizing for combat, questions continued to surface about our approach and how literally the description provided in FM 3-0 should be taken. Among them were questions about applying the warfighting functions to many topics, especially to staff sections related to sustainment, associated terms

of reference documents, rating chains, and relationships with special staff.

I began searching for material that could further the education and individual study required by Army leaders. I was not concerned at first. After all, in my 28 years in the Army, I had experienced a number of Army transformations. I was at Fort Lewis, Washington, in 1983 when, at least I will claim, the first forward support battalion (FSB) became a reality. It was the 2d FSB, which later became known as the 709th FSB. I later lived through the transformation to the Army of Excellence while serving as the S-2/S-3 for a main support battalion.

I had also served as a division support command (DISCOM) commander, and I felt that particular organizational experience would serve me well on the division staff and would help me apply the sustainment warfighting function. After all, much of the work we did on the DISCOM staff, in my opinion, was a precursor to operations within the sustainment warfighting function.

The planning work, the exercises, and the training we accomplished in the DISCOM were generally conducted as a fused staff. This included the division medical operations center, which was organic to the DISCOM but worked directly with the division surgeon. The DISCOM staff and materiel management center staff worked directly with the G-1 and G-4 during planning, and we even colocated when we operated in a field environment. So, I felt I already had some experience.

However, in the mature Iraqi theater, which was quickly transitioning away from full-spectrum operations, applying the sustainment warfighting function at the division level seemed more problematic. Much of the integration and synergy that I believe would have been experienced through a warfighting function approach would have occurred during the earlier parts of the war. So, without organizational experience specific to the sustainment warfighting function, I looked for examples that would best provide a proof of principle for exercising the warfighting function concept.

Practicing the Warfighting Function

As FM 3-0 says, "Army leaders must examine and debate the doctrine, measuring it against their experience and strategic, operational, and tactical realities." Consequently, our application of the sustainment warfighting function was a work in progress, really starting with the mission rehearsal exercise (MRX) at Fort Lewis.

But looking back, I remember friction points already beginning to materialize while at home station. With guidance from the chief of staff, our terms of reference, and my assessment of how the doctrine should be applied, along with guidance from the observer-trainers from Fort Leavenworth, Kansas, we

sought to determine the best approach to applying the sustainment warfighting function. First and foremost, I did not want to create another level of administrative management, and we were not manned to sustain that organizational structure anyway.

The focal points for a good portion of the MRX were staff communication and planning, which were important to ensuring staff coordination. But we also practiced providing situational awareness and a common operational picture (COP) to the commanding general and to the sustainment chief, who serves as the primary logistics operator to the commander.

“Cooperate and graduate” was my mantra for much of the MRX, but the experience did allow us to examine and debate the doctrine and measure it against the experiences of subject-matter experts. This examination was important because, as FM 3–0 says, “while FM 3–0 can inform them of how to think about operations, it cannot provide a recipe for what to do on the battlefield.”

One of the first areas where we could see a gap was in providing the situational awareness and COP for sustainment. We created a sustainment update brief to provide the situational awareness and COP necessary for the exercise and hoped that it would provide the framework for the event and the deployment.

Although the sustainment update brief worked well during the MRX, it was somewhat unrealistic for application during the deployment. This was particularly evident while we experienced the battle rhythm and the boards, bureaus, centers, cells, and working groups (B2C2WG) of the 10th Mountain Division during the left-seat/right-seat ride of the relief-in-place process. The sustainment update brief was extremely energy and time intensive. Although we conducted a number of update briefs that were fruitful during the training event, the brief was not manageable once in country.

B2C2WG are meetings that are scheduled periodically or as required to solve problems and coordinate actions. These groups include representatives from within or outside a warfighting function and from other commands in some cases. Each meeting’s composition depends on the issue or mission at hand. The meeting is a control measure for regulating a specific action, process, or function.

The battle rhythm of the 10th Mountain Division did not include the sustainment warfighting function. A time block was built in for a staff internal meeting in which the primary staff would synchronize with their staffs. It was similar to a shift-change brief. A block of time was also built in for staff coordinating meetings, such as in-progress reviews or operational planning teams, but invariably the battle rhythm was meant for staff coordination among the primary staff. So, as the battle rhythm matured and available time was at a premium, the ability to include in it another level of

synchronization became more difficult.

Eventually, we settled on conducting a sustainment synchronization meeting once a week during the staff coordinating meeting timeslot. We had the option to do it a second time during the week as planning requirements dictated.

The warfighting function in some cases needed to be recognized on all of the battle rhythms of the brigade combat teams (BCTs), divisions, and corps. Keep in mind that battle rhythms may be established in the same way we used to run wire in the division (lower to higher)—once the corps has established its battle rhythm, the divisions can establish theirs, and so on down to the BCTs. It will never be perfect or complete, but there are ways to leverage the intent of the battle rhythm as best as possible.

Integrating Under the Warfighting Function

Application of the sustainment warfighting function would have been most appropriate for planning in an environment of mass casualties and synchronization of reconstitution operations; however, it was the current operating environment that we needed to sustain.

It became clear that although the MTOE reflected aspects of doctrine, neither the MTOE nor doctrine provided the recipe for what to do on the battlefield. It also became clearer through ancillary discussions with the outgoing staffs of the 10th Mountain Division as well as through 10 months of practical application in Iraq.

I believe there is a common theme here: providing the synergy needed for internalizing the sustainment warfighting function. I believe this theme would also hold true for at least the protection warfighting function, which is similar to the sustainment warfighting function in application.

The 10th Mountain Division G–4 commented that “we worked much closer with the division engineer on basing than we did with the division surgeon on any matter.” Given the phase of the war we were in, it seemed like a fairly accurate statement. That comment has stuck with me as I have personally debated the doctrine while awaiting more substantiating evidence that the doctrine is correct. I think a lot of this view had to do with the timing of the campaign; however, I also believe that it was because the doctrine had not been internalized, nor was it completely threaded throughout the sustainment community.

Looking back many times at that comment and examining related staff tasks helped define the premise. The test might also be from looking at the similar consternation felt over the protection warfighting function. FM 3–0 describes the protection warfighting function as including force health protection. It says:

Force health protection includes all measures to promote, improve, or conserve the mental and

physical well-being of Soldiers. These measures enable a healthy and fit force, prevent injury and illness, and protect the force from health hazards.

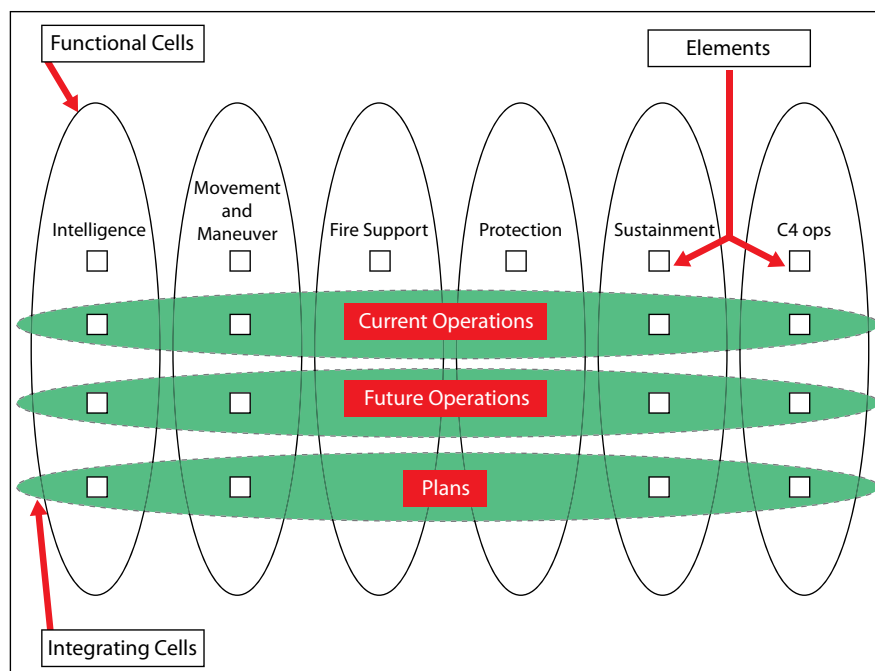
These measures include aspects of many Army Medical Department functions, including preventive medicine, veterinary services, combat and operational stress control, dental services, and laboratory services.

The protection warfighting function does not have these skill sets organic to its MTOE sections. So, commanders use what FM 3-0 describes as integrating processes and continuing activities to synchronize operations during all operations process activities. The functional cells and integrating cells are not single staff sections. In a sense, they are combined arms staff components. Using sustainment as an example, the G-1, G-4, and surgeon section personnel often become elements of the plans and effects cells. The integrating processes and continuing activities last throughout the operations process, and invariably some processes may be considered enduring processes.

The battle rhythm is a key control measure for managing integration. Coupling the battle rhythm with the B2C2WG process in today's operational environment seems to be the best solution for integrating and synchronizing tasks and processes toward completing the mission.

Early on, there were discussions about the battle rhythm and synchronization of the B2C2WG. The 34th Infantry Division fundamentally adopted the base structure of the 10th Mountain Division's or Multi-National Division South's (MND-S's) battle rhythm, as directed by the division commander. This was primarily to provide continuity among the subordinate BCT battle rhythms rather than trying to have a number of organizations resynchronize their battle rhythms; and it also was aimed at vetting the division's battle rhythm against the corps' battle rhythm.

The battle rhythm subsequently adopted for MND-S included, for example, the basing working group, which met every Tuesday. The working group alternated between being a sustainment-centric basing working group and an engineer-centric basing working group. The interesting part was that components of both the sustainment and protection warfighting functions attended both working groups. Soldiers were assigned to the working group based on the related tasks and



This chart represents how the warfighting functions may work best. The functional cells and integrating cells are not single staff sections; instead, they are combined arms staff components.

organizational experience needed to accomplish the basing mission.

The Transition Line of Effort

Another example of how related tasks and processes can be channeled through the warfighting function methodology is the working group that was assigned to synchronize the activities of MND-S's transition line of effort (LOE). Considering that a warfighting function is a group of tasks and systems united by a common purpose that commanders use to accomplish missions, this LOE seemed like a perfect fit. The MND-S's transition LOE is part of the division campaign plan, nested within MNC-I's campaign plan to reposture forces and equipment as the Army finalizes its actions in Iraq.

Two objectives needed to be achieved to make the transition LOE successful: reposture forces, equipment, and basing and maintain the discipline and readiness of the force. These two objectives were determined to have key tasks that were associated with a number of different personnel from special staff and warfighting functions. These personnel included the G-1, G-3, G-4, G-5, division engineer, provost marshal, division surgeon, inspector general, staff judge advocate, division sexual assault response coordinator, chaplain, and division safety, knowledge management, and equal opportunity staff.

All of these staff sections had to accomplish their key tasks in support of the two objectives under the

transition LOE and, correspondingly, assess and evaluate MND-S's status and progress based on associated metrics and measurements. As the sustainment chief, I was assigned as the lead for the transition LOE within MND-S.

The B2C2WG framework became the definitive methodology for bringing all of the staffs together within the transition LOE working group. The working group was approved by the chief of staff, who then gave me the authority to direct the assessments within the framework of the B2C2WG. A fragmentary order to MND-S's campaign plan delineated the objective and key tasks, and each staff section refined its metrics and assessment for the commanding general.

Accomplishing the objectives and key tasks assigned required a group of tasks and systems united by a common purpose to accomplish the mission at hand and further supported the relevance of the warfighting function and the B2C2WG concepts. In this case, the transition LOE was the lead integrating means for the strategic reposturing of MND-S equipment and personnel. In the current operating environment, the warfighting functions have integrated related tasks and systems for each particular mission, be it basing, civil-military operations, or the larger umbrella functions of sustainment or any of the other five warfighting functions.

The Sustainment Warfighting Function's Relevance

FM 4-0 gives the following description of sustainment:

The functional elements of sustainment include supply, field services, transportation, maintenance, general engineering, human resources, financial management, legal, religious support, and Army health service support. These elements and their many subfunctions comprise the sustainment warfighting function. When optimized, sustainment operations ensure strategic and operational reach and endurance for Army forces in any operational environment.

Given that description, the sustainment function encompasses a broad spectrum of services and consequently could be the lead of a number of lines of operation. That premise may be more related to humanitarian relief operations than to full-spectrum operations, but it is relevant in either case.

The sustainment warfighting function is truly relevant when put into the proper perspective and applied as the concept for integrating the functional elements of sustainment. All required people, information, and processes can be used effectively without deliberately cross-leveling staff to other warfighting functions to accomplish the mission. This can be best accomplished by using the warfighting function doctrine, coupled with B2C2WG, as the most proficient method for managing integration. Correspondingly, the battle rhythm is the most effective control measure for managing the

integration.

A few points are relevant and helpful in deciding how to execute the concept of the sustainment warfighting function. It is best to avoid creating an overall approach that cannot be supported without additional manning. This means being careful about how much administrative overhead the sustainment headquarters element can handle, including email traffic, consolidation of reporting requirements, and other administrative and management tasks.

In today's modular Army, the staff elements and commands with which the sustainment chief/G-4 must interact and coordinate are all one rank his senior. The corps C-4 is a colonel and the sustainment command support operations officer is a colonel, for example. There is a significant difference in influencing the commander's objectives when an O-6 is conversing with a peer O-6. The Army needs to provide a billet to support the sustainment chief/G-4 commensurate with the level required by a division staff.

The sustainment warfighting function can be truly relevant if executed as a methodology. My purpose in writing this article is to assist in developing the future of the sustainment warfighting function. With that in mind, my intent is also to further the internalization of the sustainment warfighting function doctrine. This is already being accomplished in many other ways as the Army formalizes its doctrine and organizational constructs. But my intent is to help provide the recipe for what to do on the battlefield.

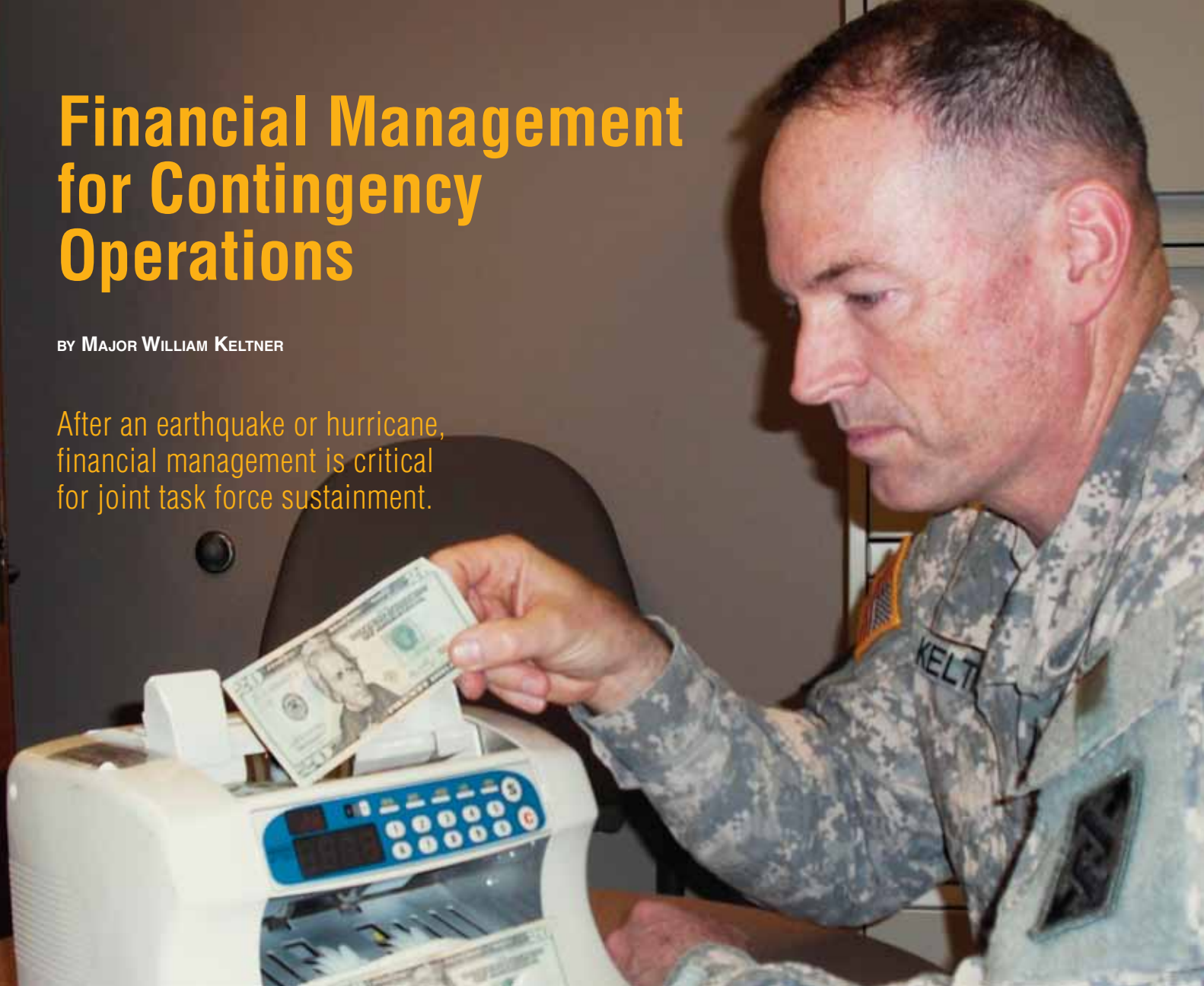
Toward that end, we need to recognize how staff sections are fundamentally linked in order to examine and debate the doctrine against recent experience and tactical realities. Warfighting function doctrine, internalized and executed in a measured approach using B2C2WG methodology and coupled with the battle rhythm, is key to managing and controlling the integration of the various staff elements. This doctrinal examination and debate may assist in minimizing friction points in execution and also further support the benefits of the sustainment warfighting function.

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Financial Management for Contingency Operations

BY MAJOR WILLIAM KELTNER

After an earthquake or hurricane, financial management is critical for joint task force sustainment.



The 469th Financial Management Center S-3 uses a money counter to count cash to be sent to Haiti in support of the U.S. Army South Joint Task Force.

In November 2010—officially the final month of the hurricane season—Tropical Storm Tomas took a 90-degree turn in the Caribbean Sea, gained momentum, grew to hurricane strength, and sideswiped the northwest edge of Haiti. As the potential disaster loomed for the small nation that was still recovering from a devastating earthquake, the U.S. Southern Command (SOUTHCOM) prepared to respond by alerting the U.S. Army South (USARSO) joint task force (JTF) to prepare for deployment to Haiti. In conjunction with USARSO, my unit, the 469th Financial Management Center (FMC), put into action a contingency operations (CONOPS) plan for early-entry financial management (FM) support.

The following chronological events depict the 469th FMC's response to this potential disaster. The lessons

learned from the execution of this mission reveal how thorough CONOPS planning and teamwork can establish quick FM response to and sustainment of contingency operations.

Preparing to Support the CONOPS

As I sat at my desk in the 469th FMC operations office and tracked the storm on the Internet, an email caught my attention. It said that the commander of SOUTHCOM had determined that Tropical Storm Tomas would likely cause damage resulting in urgent, life-threatening circumstances affecting the population of Haiti. Subsequently, USARSO was authorized to commence humanitarian assistance operations by prepositioning forces in advance of the storm.

The deploying force would be a USARSO JTF. It

needed FM support to pay for goods and services to sustain itself while in Haiti, and it needed the support immediately. The JTF called the 469th FMC, which maintains a theater-committed relationship with SOUTHCOM. In this technical planning capacity, the FMC ensures that SOUTHCOM has the critical FM support for any contingency in its area of responsibility (AOR).

As Tropical Storm Tomas moved closer to Haiti, SOUTHCOM took action. On 1 November, the 469th FMC was alerted. SOUTHCOM wanted us to very quickly set up disbursing operations in Haiti to pay local vendors for critical requirements to establish and sustain its JTF.

We were ready. I had already been appointed as a deputy disbursing officer to Disbursing Station Symbol Number 5570, and we had acquired blank U.S. Treasury checks to be used in such a contingency. Sergeant First Class Troy Tillman, the other half of my team, could also function as a deputy dispersing officer if needed. Tillman and I responded within 48 hours of the alert and flew to USARSO headquarters in San Antonio, Texas, to join the other JTF members who were preparing to deploy.

Meanwhile, Colonel Stanley Brown, the commander of the U.S. Army Financial Management Command (USAFMCOM), initiated daily teleconferences to ensure that all parties were updated on the ongoing operation. The agenda included such topics as operations, banking procedures, potential replacements from a global response force for the 469th FMC's FM team after the initial 2 weeks of the operation, and details of the overall FM plan.

Advanced Planning

We had initiated our planning for such a potentially catastrophic contingency in June 2010 during SOUTHCOM's "Haiti: Lessons Learned" meeting, which I attended as the 469th FMC operations officer. Instrumental in planning the meeting was the then commander of USAFMCOM, Colonel Troy Clay. Other participants included the director and sergeant major of the 469th FMC, the USAFMCOM e-commerce director, the deputy G-8 of SOUTHCOM, the USAFMCOM banking officer, and the USARSO G-8. All participants agreed that timely FM support to the USARSO JTF was not provided after the earthquake in Haiti on 12 January 2010 and could not be provided fast enough through the "request for forces" process.

Because the 469th FMC is theater committed to SOUTHCOM, USARSO asked that it fill the void. Colonel Matthew Sims, the director of the 469th FMC, agreed and sent a CONOPS plan for approval to his headquarters, the 143d Sustainment Command (Expeditionary).

Basically, the CONOPS plan called for a qualified 469th FMC disbursing team to be ready to deploy

within 72 hours of notification to the SOUTHCOM AOR as part of an advance party to support a JTF. The team would be responsible for paying local vendors for goods and services required for the mission, obtaining and safeguarding the required cash, and ensuring that the disbursement mission is sustained by a cash flow until the mission is complete. Finally, the team had to ensure that all disbursements and cash handling met the Department of Defense Financial Management Regulation 7000.14-R requirements.

Additional planning meetings and teleconferences conducted by 469th FMC leaders facilitated development of the CONOPS plan to ensure mission success. Meetings were held with representatives from the USARSO G-8, Defense Finance and Accounting Service central disbursing, the DDS (deployable dispersing system) help desk, and the USAFMCOM banking team.

Change of Plans

Shortly after we responded to Hurricane Tomas, mission changes by USARSO and SOUTHCOM required us to deviate from our plan. We arrived at USARSO headquarters and discovered that the JTF would deploy only after the storm had passed and an assessment had been made of the extent of the storm's impact on Haiti.

The decision was made to send Sergeant First Class Tillman and two contracting officers as an advance party, flying commercially through Miami to Haiti where they would set up operations in the U.S. Embassy. There, they would lay the groundwork to acquire crucial goods and services to support the JTF if it deployed. The safe identified for this mission would remain in the rear with the JTF, and military air would not be used as planned, which created some concerns for safeguarding the funds. To mitigate risk, the \$200,000 in cash that USARSO had originally requested for the AOR was reduced to \$9,500. (An armed escort is required for \$10,000 or more.)

The USARSO G-8 made arrangements with the Fort Sam Houston Broadway Bank to cash one Treasury check for \$9,500. In addition to the cash, I signed \$200,000 in Treasury checks over to Tillman, who secured all of the checks and cash on his person.

As another source of funding, the USAFMCOM banking team arranged for \$25,000 to be wired to the local bank (Citibank) in Haiti for pickup when the team arrived. This would allow the FM team to maintain its check stock and not require any cash initially from other sources such as the U.S. Embassy. We would discover that the funding process of having money wired is easier than printing, processing, and depositing unused U.S. Treasury checks.

Advance Party Deployment

Tillman deployed to Haiti on 7 November with the USARSO advance party. Communication with the advance party became critical since status reporting

was required twice daily. The first report was not good. Tillman's checked luggage containing his weapon and other equipment did not arrive on the plane with him. It did finally show up a few hours later on another flight. Immediately upon arrival in Haiti, Tillman established disbursing operations and made a payment to a local vendor for rental car services.

On 10 November, SOUTHCOM determined that the population of Haiti, fortunately, had been spared substantial harm from Hurricane Tomas, and the advance party was ordered to redeploy to their home station and resume normal duties. The 469th FMC's FM team returned home having successfully completed the disbursing mission with no losses.

Accomplishments Identified

The 469th FMC's after-action review of the Hurricane Tomas CONOPS revealed a number of accomplishments. The team met its reporting requirements by responding within 48 hours with Treasury checks to pay for JTF operational requirements. FM personnel deployed ahead of the main body with \$209,500 in cash and checks on hand and established disbursement operations at the U.S. Embassy in Haiti. Wiring \$25,000 to the local bank (Citibank) in Haiti proved to be an efficient way to get cash into the country. The team recommended that the advance party increase the use of the International Treasury Services website (its.gov) to have cash wired to a local institution and use Treasury checks as a backup. The CONOPS plan was effective, allowing the advance party to redeploy and clear with no loss of funds.

Problems Revealed

The after-action review also revealed a number of problems encountered with the CONOPS. First, Soldier readiness processing slowed FM preparations while at USARSO. This indicated a need to improve our readiness processing at our home station by updating and obtaining all requirements for the USARSO AOR.

Second, sending a weapon and other equipment through baggage on a commercial airline proved troublesome when the baggage did not arrive in country with the Soldier. When transporting weapons, military air travel should be used if possible so that weapons are not entrusted to commercial airlines.

Third, our CACs (common access cards) would not work on USARSO computers, and some of our regulation disks could not be accessed. Our load plan should be improved to conduct disbursing operations independent of the Internet and to safeguard funds with a field safe until a larger safe reaches the contingency operating site.

Fourth, the request for us to take at least \$200,000 in cash and checks into Haiti never changed from the alert notice, even though it became obvious after the storm passed that the money would not be needed. After



A financial management team member loads up cash, checks, and equipment in front of the U.S. Army South Headquarters at San Antonio, Texas.

arriving at home station, coordination was needed to locate a U.S. Treasury depository and establish an account to deposit the more than \$200,000 in unused cash and checks.

Fifth, the 469th FMC expected a global response team to be positioned to deploy and relieve the initial 469th FM team; however, that plan has yet to be addressed. Planning must include FM personnel replacement and reinforcement procedures and plans for overseeing operations if replacements do not materialize. Also, official passports were not required, but they may allow for easier movement of personnel.

Although the mission lasted only 10 days, it demonstrated the progress made since the last contingency operation. With teamwork, coordination, and prior planning using lessons learned from the Haiti earthquake response, the 469th FM team responded within 48 hours with cash and the ability to resupply cash to sustain recovery operations. With another hurricane season upon us, the 469th FMC remains ready to do it again.

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Training Army Values

BY HOPE L. BEAN AND LOGISTICS INTERNS

Department of the Army logistics interns were tasked with teaching each other about the seven Army values: loyalty, duty, respect, selfless service, honor, integrity, and personal courage.

The Instructor's Perspective

As an intern manager, I am responsible to train, develop, and mentor newly hired Department of the Army logistics interns. It is imperative that I introduce and train the seven core Army values within the first few weeks of their 15- to 18-month training program. These values are not only for Soldiers but for all Government employees to live and emulate in order to serve and protect our Nation faithfully.

I am sure the students know the definitions of the words loyalty, duty, respect, selfless service, honor, integrity, and personal courage. My mission is to validate what they know and reinforce these values so that they can apply them in their own lives.

I asked myself, how do I train this set of values and have it leave a lasting impression on them? How can I foster future critical and creative thinkers? How can I show them the difference between knowing and understanding? Countless PowerPoint presentations, Army videos, and references are available to assist me in training the Army values. But I did not want to train these values in the traditional manner (a lecture). I wanted this training to be different and felt that inquiry-based learning would drive the values home.

Inquiry-based learning is an instructional strategy that is centered on problem solving, with the learners taking personal ownership of and responsibility for solving the problem. The instructor's role becomes one of a facilitator, helping them refine their thinking as the learners attain the solution.

The Students' Perspective

The Army values are the cornerstone of maintenance, supply, and transportation. When our instructor, Hope Bean, walked into the intern classroom and began questioning us about the importance of the Army values, we knew we were in for a treat. Her motivational words regarding integrity, honor, and respect made us all lean forward in our seats anticipating the next anecdote or true-to-the-warfighter story.

Tale after tale captivated our minds and imaginations until the tables turned; we were now charged with the task of researching and teaching the Army values to a class of our peers. The face of each student revealed disbelief, fear, uncertainty, and embarrassment masked by a forced, polite smile. This was something new, something different. Here we were, fresh interns, many

of us with no clue about military workings, and now we were required to create a full presentation on a given Army value.

After receiving the assignment and splitting into groups, the teams quickly got to work. Despite a strong sense of team and community in our class, competition ran high and our presentations quickly became an opportunity for each intern to shine.

The presentations themselves were as varied as the personalities in our class. When interviewed later, each group confessed that individual contribution was not an issue, but boiling down the material to a short 10 minutes certainly was.

True to form, each and every presentation was unique in both format and material. Some were somber considerations of an Army value, offering insight and wisdom to the meaning and historical significance of the value. Others were entertaining, focusing instead on making a memorable impression about the sometimes comical implementation of the Army value. Some used outside sources who gave speeches about their experiences, while others staged short skits that incorporated experiences we see every day.

Some groups used PowerPoint presentations, while others created their own videos compiled of personal stories that exemplified the Army value they represented. Despite the wide variety of presentations, each group aimed to drive home the importance and significance of each Army value.

The presentation of each Army value brought forth a renewed sense of why we all accepted our new careers. We are training to become premier logisticians, and we all realize that by living and demonstrating these values, we can fully support the Soldier and the mission.

Being able to exercise these values within our careers is a great honor. As we engaged ourselves in this interactive learning, we understood what it means to serve our Nation and our Soldiers. After our presentations, we were enthusiastic and appreciated the opportunity to represent the Army and our intern program. The methodology that was chosen for our presentations allowed for diversity and a vast range of understanding.

The challenge transcended simply forming us into better employees and better leaders. It instilled a spark into the intern program, acquainting us as interns to a necessary capability in Army sustainment: the ability to respond to the unexpected.

HOPE L. BEAN IS THE LOGISTICS INTERN PROGRAM MANAGER AT FORT LEE, VIRGINIA. INTERNS MICHELLE NEWCOMB, REBEKAH STAPLES, SHEILA CAMPBELL, AND SIOBHAN YARBROUGH CONTRIBUTED TO THIS ARTICLE.

TRANSCOM To Parent Former JFCOM Unit

The Department of Defense (DOD) announced 2 May that as part of the disestablishment of the U.S. Joint Forces Command (JFCOM), critical JFCOM organizations and functions will be realigned to other DOD components to ensure that the expertise within these organizations is maintained for the joint war-fighter.

The Joint Enabling Capabilities Command will be reassigned to the U.S. Transportation Command as part of the realignment; the Joint Warfare Analysis Center will fall under the U.S. Strategic Command; the Joint Personnel Recovery Agency will move to the Air Force; and the North Atlantic Treaty Organization School will go to the U.S. European Command. The formal transfer of these organizations and functions will be complete by late summer.

Secretary of the Army Directs Use of the Logistics Information Warehouse in Support of ARFORGEN

In a 22 March memo, Secretary of the Army John M. McHugh directed the commander of the Army Materiel Command (AMC) to “undertake the task of creating a repository for Army logistics data that will provide a single, common location for all Army materiel stakeholders to access, acquire, and deliver data and information for managing Army materiel. This system, known as the LIW [the Logistics Information Warehouse], will be the Army’s authoritative materiel data repository.” LIW, which provides access to data from 12 separate Army systems, will facilitate materiel management in support of Army Force Generation and the Army’s Equipping Strategy.

Getting the system fully functional is one piece of a continuing effort toward the Army’s goal of achieving total asset visibility. In the memo, the Secretary of the Army also directed that AMC provide Headquarters, Department of the Army, with updates on the cost, design, and implementation schedule for the system at least “every 90 days until full operational capability is achieved.”

Army Transfers High Speed Vessels to the Navy

The Army has transferred all five of its joint high speed vessels (JHSVs) to the Navy in an effort to reduce redundancy in the services’ capabilities and better align their core competencies. A memorandum of agreement was signed between the Army and Navy on 2 May that clarified relationships, identified roles and responsibilities in use of JHSVs, and provided an implementation plan for the transfer of the vessels.

The decision to have the Navy take over the JHSV program was made to during the Army/Navy War-fighter Talks in December 2010. This move gives the

Navy 10 JHSVs, which the Military Sealift Command will crew with civilian or contract mariners. The vehicles will be used for fast intratheater transportation of troops, military vehicles, and equipment.

Secretary of the Army John M. McHugh says the

Exercise Atlas Drop Develops Aerial Resupply

Soldiers on a C-130 aircraft drop supplies using low-cost, low-altitude aerial resupply systems for Ugandan People’s Defense Forces soldiers at Drop Zone White, near Olilim, during Exercise Atlas Drop 11. The annual logistics exercise held in April brought U.S. and Uganda People’s Defense Forces personnel together to develop Uganda’s aerial resupply capabilities. The 3-day exercise provided an opportunity for forces of both nations to practice aerial-delivery resupply missions under changing conditions. (Photo by SFC Brock Jones, 128th MPAD, Utah Army National Guard)



Army will work with the Navy to “determine how to ensure this capability can best support the combatant commanders.”

Accessions Command Slated To Be Inactivated

The Army Accessions Command has been chosen for inactivation as part of Department of Defense and Department of the Army efficiency reviews. The command, which was established at Fort Monroe, Virginia, in 2002, was originally created to better align accessions and initial-entry training by becoming an overall headquarters for the Army Recruiting Command, Army Cadet Command, and initial-entry-training organizations.

The Army Recruiting and Cadet Commands will now fall under the Army Training and Doctrine Command, as they did before the Army Accessions Command was established. An accessions support brigade will remain at Fort Knox, Kentucky, as a direct reporting unit to a new Army Marketing and Research Group. The group will be located in Washington, D.C., and will be a field operating agency under the Assistant Secretary of the Army for Manpower and Reserve Affairs.

Inactivation of the Army Accessions Command is expected to take 12 to 18 months. Officials estimate that the move will save money through the elimination of two general-officer positions, 65 other military slots, 130 civilian positions, and 290 contractor man-years.

National Stock Numbers Identified for M-ATV Rocket-Propelled Grenade Net Kit Components

The Defense Logistics Agency (DLA) has identified and given national stock numbers to 95 individual components of the mine-resistant ambush-protected vehicle, rocket-propelled grenade net kit.

Before these parts were identified, units whose kits were damaged in battle were unable to order parts and had to cannibalize unused systems for repair parts.

Among the 95 items are 16 critical components that DLA is procuring and sending to supply support activities in Afghanistan. The documents containing the stock numbers of these critical components are available on SustainNet at <https://forums.army.mil/CommunityBrowser.aspx?id=1357851>.

New Retrieval Trailer Used in Afghanistan

The first joint recovery and distribution systems (JRaDSs) arrived in Afghanistan in January to improve the recovery of mine-resistant ambush-protected vehicles and engineering equipment there.

The JRaDS 40T trailer has a tilting deck for drive-on or drag-on operations, an integrated 60,000-pound recovery system, and two winches that can each move

PROFESSIONAL DEVELOPMENT

New SSI Warfighter Training Support Package Available Through Army Training Network

The Army Soldier Support Institute Collective Training Branch, Training Development Directorate, has released a new warfighter training support package. The package, entitled Conduct Internal Control Operations, is now available on the Army Training Network website at <https://atn.army.mil>.

Ammunition Multimedia Encyclopedia Created

The Defense Ammunition Center in McAlester, Oklahoma, has partnered with Serco Inc. and Oklahoma State University to provide ammunition Soldiers and civilians with data to support munitions inspections. The Ammunition Multimedia Encyclopedia is a reach-back information center that provides 24-hour support to users and holds 180 documents on new munitions items and munitions inspection points.

The information is available through a link in the Ammunition Community of Practice located on the Internet at <https://acc.dau.mil/ammo>. Users must have a common access card to enter the site.

Continuing updates are being made as new items become available. In 2011, 100 new munitions items will be added. Plans are also in the works to make the encyclopedia available for the iPhone and iPad.

Community of Practice Revised for Joint Logistics Education and Training

The Joint Logistics Education and Training Community of Practice has been revised under the purview of the Worldwide Joint Training and Scheduling Conference Joint Logistics Working Group to assist joint logisticians in meeting the needs of the joint warfighter in a constantly changing operational environment.

The site provides easy access to joint logistics education and training guidance and doctrine, Department of Defense strategic-level guidance and doctrine, conference information, interagency and multinational resources, and information about and links to hot topics.

The community of practice is available at <https://acc.dau.mil/CommunityBrowser.aspx?id=123355&lang=en-US>.

50,000 pounds. The JRaDS system, part of the U.S. Transportation Command's Joint Capability Technology Demonstration, was developed by Boeing and Absolute Electronic Solutions, Inc. The JRaDS 40T trailer is part of a family of trailers, expected to expedite

the recovery and evacuation of disabled vehicles and downed aircraft.

The trailers will also speed the handling and distribution of cargo. Another member of the trailer family, the JRaDS 34T (LH34) logistics trailer eliminates the need for a crane or forklift to load and unload 20- to 40-foot containers.

Pentagon Cooks Take Top Honors at Culinary Arts Competition

The 36th Culinary Arts Competition was held at Fort Lee, Virginia, from 3 to 9 March, bringing together U.S. Army cooks stationed around the world to compete in the largest competition of its kind in North America. More than 250 competitors presented a total of 788 entries. This year, Team Pentagon dominated the competition, winning Installation of the Year (ahead of Team Fort Bragg, North Carolina, and Team Coast Guard), Armed Forces Chef of the Year, the nutritional hot food challenge, and three individual awards in special categories.

Sergeant Billy Daugeette from Team Pentagon was named the Armed Forces Chef of the Year. Senior Airman Ghil Medina, from Joint Base Langley-Eustis, Virginia, was named the Armed Forces Junior Chef of the Year. Sergeant First Class Steven Broome, enlisted aide to General Peter Chiarelli, the Army Vice Chief of Staff, was named the Army Enlisted Aide of the Year.

Team Pentagon's individual winners were—

- ❑ Specialist Sarah Decker for the best exhibit in show, cold platter.
- ❑ Staff Sergeant Orlando Serna for the most artistic exhibit in show.
- ❑ Chief Petty Officer Derrick Davenport for the best in class, contemporary cooking.

Staff Sergeant Serna and Specialist Deckert also were the Pentagon's winning nutritional hot food challenge team.

Other collective winners in the culinary arts competition were—

- ❑ Team Coast Guard in the field cooking competition and student team skills competition.
- ❑ Team Fort Riley, Kansas, for the best decorated table for field cooking competition.
- ❑ Team Fort Bragg for the Baron H. Galand Culinary Knowledge Bowl.
- ❑ Team Fort Hood, Texas, for the judge's special award, cold food table.
- ❑ Chief Warrant Officer 3 Jeffery Lein and Master Sergeant Travis Jones from Fort Bragg for the best ice carving in show.



Above, Senior Airman Ghil Medina from Joint Base Langley-Eustis, Virginia, who was named the Armed Forces Junior Chef of the Year, zests a lime during the 36th Culinary Arts Competition. Below, Sergeant Billy Daugeette from Team Pentagon was named the Armed Forces Chef of the Year during the Culinary Arts Competition held at Fort Lee, Virginia. Colonel (now Brigadier General) Gwendolyn Bingham, the Quartermaster General, presented the award. (Photos by Julianne Cochran, Army Sustainment)



CORRECTION

In the May–June 2011 issue, the biography for Patricia Kelly misstates her previous position. She was director for force projection and distribution at the Department of the Army, G–4.

- Soldiers receiving individual recognition were—
- ❑ Private Chelsea Karr, Team Europe, for best exhibit in show, cold appetizers.
 - ❑ Private First Class Martha Cobble, Fort Riley, for best exhibit in show, patisserie/confectionary.
 - ❑ Specialist Samantha Gayton, Fort Carson, Colorado, for best exhibit in show, showpiece.
 - ❑ Specialist Thomas Richberg, Team Hawaii, for best in class, contemporary pastry.

Sustainment Force Structure Book Updated

The Army Combined Arms Support Command Force Development Directorate has revised the Sustainment Force Structure Reference Book 2011 with the latest changes to the sustainment force structure. The book describes sustainment missions, unit locations, and sustainment structure requirements approved in the Total Army Analysis (TAA) 12–17 process.

Changes include the addition of knowledge management, G–9, G–3 future operations, and operational contracting support sections at the theater sustainment command and expeditionary sustainment command (ESC) levels. The ESC will now have a financial management section as well. The document also includes a standard design for the support operations section within the combat sustainment support battalion. (These

and other changes will be reflected in fiscal year 2012 modified tables of organization and equipment.)

The reference book is available on the Internet through SustainNet at <https://forums.army.mil/CommunityBrowser.aspx?id=1293522>. Anyone with questions or recommended changes to the book should contact barry.richards@us.army.mil or mary.lane3@us.army.mil.

405th AFSBn Supports Relief Efforts in Libya

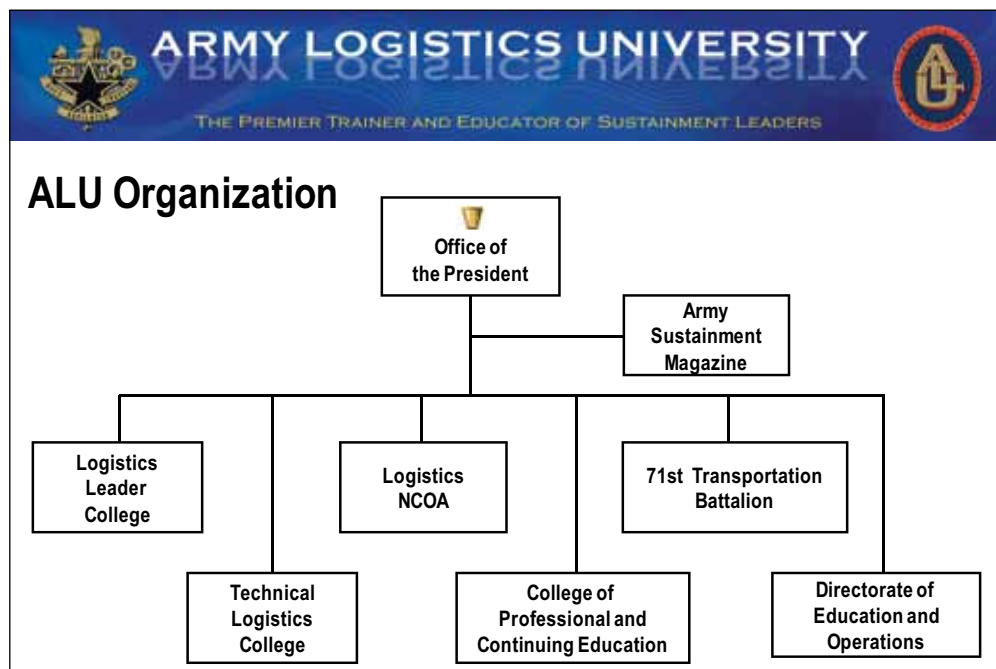
Within 36 hours of being contacted, the 405th Army Field Support Battalion-Italy (AFSBn-Italy), based at Leghorn Army Depot, prepared, packed, and loaded humanitarian supplies onto a commercial truck for an 18 April relief mission conducted by the U.S. Agency for International Development (USAID). The shipment, which was bound by commercial aircraft for the International Medical Corps set up in Benghazi, Libya, included 2,000 blankets, 1,056 personal hygiene kits, and 2,400 collapsible water containers.

The 405th AFSBn-Italy is responsible for storing and maintaining USAID emergency humanitarian assistance commodities under an interagency agreement between the Army and the Department of State and has previously shipped supplies to Haiti, the Philippines, the United Arab Emirates, and Dubai.

National Guard Responds to Southern Disasters

Soldiers from the 2113th Transportation Company, Kentucky Army National Guard, assisted local residents during a flood relief mission in Oscar, Kentucky, on 27 April 2011. During the last week of April, a total of 3,000 National Guard members responded to tornadoes, wild fires, and flooding in 11 southern states affected by weather-related disasters. The storm system, which was responsible for deadly tornados in Arkansas, Alabama, and Mississippi and flooding in Indiana, Illinois, Kentucky, Minnesota, Missouri, and North Dakota, was the worst to hit the United States since Hurricane Katrina. (Photo by SSG Michael J. Oliver)





Consolidated training support resources enable us to centralize staff and faculty training for all of Fort Lee at ALU, operate a single logistics and community library, leverage partnerships with a number of universities, and merge the international military student offices of the three branch schools and the former ALMC.

As ALU has moved through its standup, a key course has been the Theater Logistics Planners Program (TLog). Instituted in 2008, TLog educates students to be master planners of logistics at the operational level. Graduates earn

the Ordnance Munitions and Electronics Maintenance School at Redstone Arsenal, Alabama, over this summer and fall.

The consolidation of courses and resources at ALU provides opportunities for achieving numerous synergies and efficiencies. Training such as the Sustainment Warrior Field Training Exercise can be facilitated not only across cohorts (with privates in advanced individual training, NCOs in advanced leader courses, and lieutenants in basic officer leader courses) but also across the three logistics branches. The concept of ALU also enhances our ability to standardize common core training across branches.

Centralizing resources in ALU allows us to maximize the use of advanced training facilities, such as the Virtual Battlefield Simulation-2, Standard Army Management Information Systems, Battle Command laboratories, and distributed classroom simulations.

the additional skill identifier of P1 and can leverage the capabilities of operational-level Army sustainment structures, as well as those of strategic agencies, sister services, and coalition partners, to develop sustainment plans and orders. ALU offers two TLog classes each year, with 45 seats per class.

TLog graduates represent a small sample of the more than 30,000 students trained and educated by ALU each year. As ALU marks the completion of its transformation this fall, we can all look forward to the significant contributions its military, civilian, and coalition partner graduates will make in the future.

MAJOR GENERAL JAMES L. HODGE IS THE COMMANDING GENERAL OF THE ARMY COMBINED ARMS SUPPORT COMMAND AND SUSTAINMENT CENTER OF EXCELLENCE AT FORT LEE, VIRGINIA.

RECENTLY PUBLISHED

Field Manual 7-0, Training Units and Developing Leaders for Full Spectrum Operations, published 23 February 2011, is the Army's keystone doctrine for training units and developing leaders with the Army Force Generation cycle. The document lays out the doctrine that provides guidance to facilitate flexible and innovative approaches to unit training and leader development. Like the 2008 edition, the FM relies heavily on the Army Training Network to provide additional resources on best practices, examples, tools, and lessons. This electronic supplement ensures that the information provided for training is regularly updated.

Training Circular 7-31, Mine Resistant Ambush Protected (MRAP) Family of Vehicles Driver Training, published in February, outlines standardized driver training and testing instruction for MRAP operators. The document provides tactics, techniques, and procedures for MRAP operations and supplements Army Regulation 600-55, The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing).

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