

ARMY LOGISTICIAN

NOVEMBER-DECEMBER 2007

Special Forces Logistics in Afghanistan

Also in this issue:
Using CRSPs to
Manage Transportation
Munitions Sustainment
in the Modular Force
Army and Marine
Joint Distribution

ARMY LOGISTICIAN

PROFESSIONAL BULLETIN OF UNITED STATES ARMY LOGISTICS

PB 700-07-06
VOLUME 39, ISSUE 6
NOVEMBER-DECEMBER 2007

- 1 **TLog: Preparing Logisticians for the Modular Force**
—Major General Mitchell H. Stevenson
- 2 **Log Notes**
- 3 **Using Central Receiving and Shipping Points to Manage Transportation**
—Lieutenant Colonel Michael D. Melendez
- 6 **Munitions Sustainment in the Modular Force**
—Chief Warrant Officer (W-4) Dave Barron, USA (Ret.),
and Lieutenant Colonel Keith A. Beverly, USA (Ret.)
- 10 **Reorganizing a Sustainment Brigade Staff for the Fight**—Colonel Gustave F. Perna
and Staff Sergeant Joshua Salmons
- 14 **Modular Medical Logistics Support at the JRTC**—Colonel Mitchell E. Brew
and Captain Shawn R. Campbell
- 16 **The Diverse Missions of the Movement Control Team at Camp Cedar II**
—Captain Randall W. Newman, First Lieutenant Paul A. Kahn,
and First Lieutenant Richard F. Rogers III
- 18 **Commentary: Why BCS3 “Doesn’t Work”**—Major Thomas E. Sachariason
- 20 **Distributing the Army’s Medical Department Officers**—Colonel Larry S. Bolton,
Lieutenant Colonel R. G. Dickinson, and Major Vernon Wheeler
- 26 **Doing More With Less: Special Forces Logistics in Afghanistan**
—First Lieutenant Christopher G. Manganaro
- 31 **What Deploying Units Need to Know About Contracting**
—Major Houston E. Baker
- 34 **Improving Class VIII Management at Brigade Level**
—Captain Edwin H. Rodriguez
- 37 **Army and Marine Joint Ammunition Operations**—First Lieutenant Glen R. Dowling
- 40 **Army and Marine GS/DS Class I Storage and Distribution Center**
—Second Lieutenant Carlos E. Comas
- 42 **Joint Asset Visibility: Why So Hard? Commercial Sector Information
Technology Advancements**—Lieutenant Colonel James C. Bates, USA (Ret.)
- 46 **From Sutlers and Canteens to Exchanges**—James T. Delisi
- 48 **Commentary: COCOM, ADCON, OPCON, TACON, Support—
Do You Know the Difference?**—Dr. Christopher R. Paparone
- 49 **Reachback Cell Creates Explosives Safety Repository**
—Keith A. Brailsford
- 50 **News**

BOARD OF DIRECTORS

Chairman

Major General Mitchell H. Stevenson
Commander
Army Combined Arms Support Command

Members

The Honorable Claude M. Bolton, Jr.
Assistant Secretary of the Army
Acquisition, Logistics, and Technology

Lieutenant General Ann E. Dunwoody
Deputy Chief of Staff, G-4
Department of the Army

General Benjamin S. Griffin
Commander
Army Materiel Command

ARMY LOGISTICS MANAGEMENT COLLEGE

Colonel Shelley A. Richardson
Commandant

Barbara G. Mroczkowski
Assistant Commandant

STAFF

Robert D. Paulus, Editor
Kari A. Jenkins, Associate Editor
April K. Morgan, Assistant Editor
Louanne E. Birkner, Administrative Assistant

Graphic arts and layout by
RCW Communication Design Inc.

This medium is approved for the official dissemination of material designed to keep individuals within the Army knowledgeable of current and emerging developments within their areas of expertise for the purpose of enhancing their professional development.

By Order of the Secretary of the Army:

GEORGE W. CASEY, JR.
General, United States Army
Chief of Staff

Official:



JOYCE E. MORROW
Administrative Assistant to the
Secretary of the Army
0724201



Cover: Special Forces battalion task forces are charged with unique missions that require them to operate in diverse conditions and hostile environments. The article beginning on page 26 describes how the group support battalions that sustain those forces meet their unique requirements in Afghanistan. Group support battalions employ forward logistics elements at strategic locations and collaborate with coalition forces to ensure that supported Soldiers receive the supplies they need even in the most remote locations. On the cover, coalition forces drop containerized delivery system bundles from a Canadian C-130 to support operations in Afghanistan.

World Wide Web address:
www.almc.army.mil/alog

TLog: Preparing Logisticians for the Modular Force

BY MAJOR GENERAL MITCHELL H. STEVENSON

We've developed a new course, the Theater Logistics Studies Program (TLog), to replace the long-established Logistics Executive Development Course (LEDC) with which many of you are familiar. Why the change? Because, in this current environment of persistent conflict and Army and joint transformation, the Army must develop a cadre of logisticians who are equipped with the operational- and strategic-level tools needed to sustain the Modular Force and solve larger scale theater-level logistics problems.

TLog is designed to fill that need: Its goal is to develop agile, innovative logisticians who have the decision analysis, logistics knowledge, and skill sets to find solutions for complex operational logistics challenges. TLog will provide students with instruction in distributed theater operations, joint logistics planning, regional economic considerations, capabilities and requirements determination for the force mix and how to address gaps in the entire DTLOMSPF [doctrine, training, leader development, organization, materiel, Soldier support, personnel, facilities] spectrum, contracting, data analysis and application, and strategic and logistics policy. In line with the guidance contained in the recently published ARTEP [Army Training and Evaluation Program] 63-702G-MTP, Mission Training Plan for Headquarters, Theater Sustainment Command (TSC), TLog graduates will be able to—

- Conduct peacetime planning for logistics support of contingency operations.
- Direct theater-opening operations.
- Manage TSC deployment operations.
- Direct maneuver sustainment operations.
- Manage surface and air distribution systems.
- Establish support of logistics infrastructure and logistics support areas and activities.
- Coordinate force protection resources.
- Manage redeployment operations.

TLog offers an intense combination of logistics study and case studies and hands-on exercises for majors and senior captains designated for planning positions within our TSCs, expeditionary sustainment commands (ESCs), and corps and Army G-4 shops. The course broadens the individual's logistics foundation—developed through previous education, training, and personal experiences—by providing a comprehensive military supply chain educational experience within the overall Department of Defense logistics system.

TLog uses the instructional model followed by the School of Advanced Military Studies at Fort Leavenworth, Kansas. That model features the use of groups of various sizes with facilitators; case studies, site visits,

guest lecturers, and extensive readings; and the use of the Socratic method of inquiry and the application of analytical techniques to develop solutions to real-world, operational-level logistics problems. TLog also has a cooperative degree program with the Florida Institute of Technology (FIT); TLog students will be able to enroll with FIT and earn a master of science degree in logistics management after a year of study at Fort Lee.

The first TLog course pilot began in August of this year with a diverse class of majors and senior captains (Active Component and Reserve Component), some international officers, and several Department of the Army civilians. We will track the graduates of this class through their next couple of assignments to assess the suitability of TLog's content and ensure that we have targeted follow-on assignments that are appropriate. I have personally reviewed the TLog curriculum, and I am confident that these first graduates will be well prepared by their TLog experience to make significant contributions to their gaining commands. The lessons we learn from the pilot course will be used to update and revise future TLog iterations.

We are also pursuing the establishment of a skill identifier (SI) that will mark TLog graduates for assignments into those key support operations and planning positions at theater and above levels.

TLog's long-term effectiveness will be ensured by having selected graduates who have served in theater logistics assignments return to ALMC as instructors to help train and educate their successors. Establishing the SI will allow the Army Human Resources Command to effectively track graduates to facilitate use of their knowledge, skills, and attributes.

TLog is a much-needed course that will prepare logisticians for macro-level problems and introduce them to the organizations and skill sets available to help solve them. I know that the current operating tempo and the shortage of logistics officers makes sending them to the course a challenge. However, I encourage commanders to pick some of their best and brightest majors and senior captains and send them to us for 19 weeks. The next TLog course will begin in January 2008. Identify your best candidates now for the next TLog iteration, and we will send you back a "super" logistician!

MAJOR GENERAL MITCHELL H. STEVENSON IS THE COMMANDING GENERAL OF THE ARMY COMBINED ARMS SUPPORT COMMAND AND FORT LEE, VIRGINIA. REGISTRATION INFORMATION FOR TLOG IS AVAILABLE ON THE ALMC WEBSITE, WWW.ALMC.ARMY.MIL/FY06ALMC_CATALOG.PDF.

Log Notes

Know Your Tiedowns

Just a quick note to commend you on a well-written article [“Tiedown for Safety and Mission Accomplishment,” by Colonel Neal H. Bralley, USA (Ret.), in the July–August issue] on an often overlooked subject: chains and tiedowns. I find very little to argue with on your straightforward treatment of the subject.

One point that may need clarification is the drawing on page 32. I cannot tell from the drawing if the doubled front and rear forward restraint chains are actually four single chains, free to slide through the ATLAS’s tiedown loops, or two completely separate chains at each point, for a total of 8. [“ATLAS” is All Terrain Lifter Army System.] “Doubling” seems to be a common “workaround” when a rig is short a few chains. The bad news is, if the chains can slide through, they only count as one, not two—even though attached to the trailer at two points. A Department of Transportation safety inspector would rate that setup as 6 aft, but only 6 forward—not 10. A single chain can count for two (or more) only if positively, independently attached at each end of each run. (The same rule applies to another common mistake: having multiple chains run to a single clevis or shackle of insufficient total WLL!) [“WLL” is working load limit.]

I would suggest a few additional topics for a future piece, such as restraint of bulk materials, the use of non-metal straps, wood blocks and chocking, tire inflation (for both the load and the truck-trailer), and periodic load testing of chains and binders. While the ATLAS has hauling instructions, a lot of mission-related stuff does not.

I’m also a fan of using binders only on aft restraints, and keeping the bindered chains short, so if that “chin

breaker” comes loose, the load can’t move far. These are lessons learned by observing others’ problems.

Agreed, 3/8-inch and 1/2-inch G70 chains are the best value; 5/8-inch and 3/4-inch chain are way too heavy to handle, but usually no one will steal them, either! One question: What is your source for the “rail” restraint factor? The numbers strike me as being too high, though the AAR [Association of American Railroads] is conservative.

Thanks again for good info. Every Army truck driver should read and heed. Our contractor drivers need reminding, too. Luck is a poor substitute for a strong chain, and the laws of physics self-enforce!

—William Ellis
Rock Island Illinois

[Mr. Bralley, the author of the article, provided the following response to Mr. Ellis’s letter.]

I appreciate Mr. Ellis’s comments. I completely agree on chains needing to provide stand-alone restraints. It is possible to use one chain for two separate restraints, but no part of the chain may be providing restraint support to both securement legs at the same time. (For example, if you have a 14-foot length of chain, you could have two 5-foot sections providing restraint, with 4 feet of slack chain between the two sections of chain providing restraint. Such a restraint may make use of the two grab-hooks at the ends of the single chain and then use separate load binders to form the second ends of the two independent restraining legs of the single chain. This example provides one chain with four independent tiedown ends. What you do not want is a single chain that might loop

(continued on page 53)

Introducing Spectrum

In the next issue, January-February 2008, *Army Logistician* will introduce a new department, called “Spectrum.” Spectrum will look a little different from the rest of the magazine, and it will be a little different. Spectrum will feature one thought-provoking, carefully researched and referenced article in each issue—the type of article that would be suitable for publication in a scholarly journal.

Our readers should understand that *Army Logistician* is not becoming a scholarly journal. The rest of *Army Logistician* will continue to be the same professional development bulletin with which they have long been familiar, functioning under the same editorial rules and practices. *Army Logistician*’s mission will remain the same—presenting information on Army and joint logistics and offering Army and Defense logisticians a forum for expressing their views and ideas. Spectrum is an addition to our publication, not a change.

The success of Spectrum, like any new journalistic venture, depends on our customers—our readers. Let us know what you think. If you would like to write an article for Spectrum, contact us at leeelog@lee.army.mil or (804) 765-4761.

—Editor

E-Subscription to *Army Logistician*

Army Logistician is now offering an e-subscription service for readers who would like to be notified when the latest issue of the magazine is available online. If you would like to receive a regular email notification containing a link to the latest issue, send an email to leeelog@lee.army.mil with “e-subscription” in the subject. Be sure to include your name and email address in the body of the email.

Using Central Receiving and Shipping Points to Manage Transportation

BY LIEUTENANT COLONEL MICHAEL D. MELENDEZ

Upon his arrival in Iraq, Colonel Gustave Perna, the commander of the 4th Sustainment Brigade, issued an interesting edict to his staff. This 22-year veteran, who had commanded a forward support battalion in Iraq during Operation Iraqi Freedom I, announced, “Everything I know about logistics is wrong.” His point was that logistics is an ever-changing entity and we had to find new and better ways to complete our logistics missions. He also stressed the importance of effectiveness over efficiency. Efficiency is for garrison logistics, where lives are not necessarily in danger. On the battlefield, effectiveness is crucial to success and to saving lives.

Ineffective Transportation Management

In Iraq, the 4th Sustainment Brigade’s transportation integration cell (TIC), which is the transportation tasking section of the brigade S-3, found that several problems were affecting the way transportation movement requests (TMRs) were completed. First of all, the system was TMR-centric, meaning that the command was spending lots of time tracking how many TMRs were in the system and how long they remained in the system. No thought was given to Soldiers in combat logistics patrols or to the needs of customers. At that time, it took an average of 14.3 days to complete a TMR in the brigade’s area of operations. The system was ineffective. Customers often submitted TMRs to and from locations that we rarely visited. If

A Soldier directs a KBR driver to load cargo onto incoming vehicles.

a customer submitted a TMR from forward operating base (FOB) A to FOB B for one container, they had to wait for other customers to submit TMRs because road travel from FOB B to FOB A was too dangerous to send just one tractor to move a container.

The TIC also found that theater trucks were spending up to 3 weeks in Baghdad delivering their cargoes. They would travel from FOB to FOB locating customers and dropping cargo; one convoy might deliver to six FOBs. This time spent in Baghdad reduced the amount of cargo they could move because it reduced the availability of vehicles for other convoys, and that, in turn, reduced the support they could provide to Soldiers.

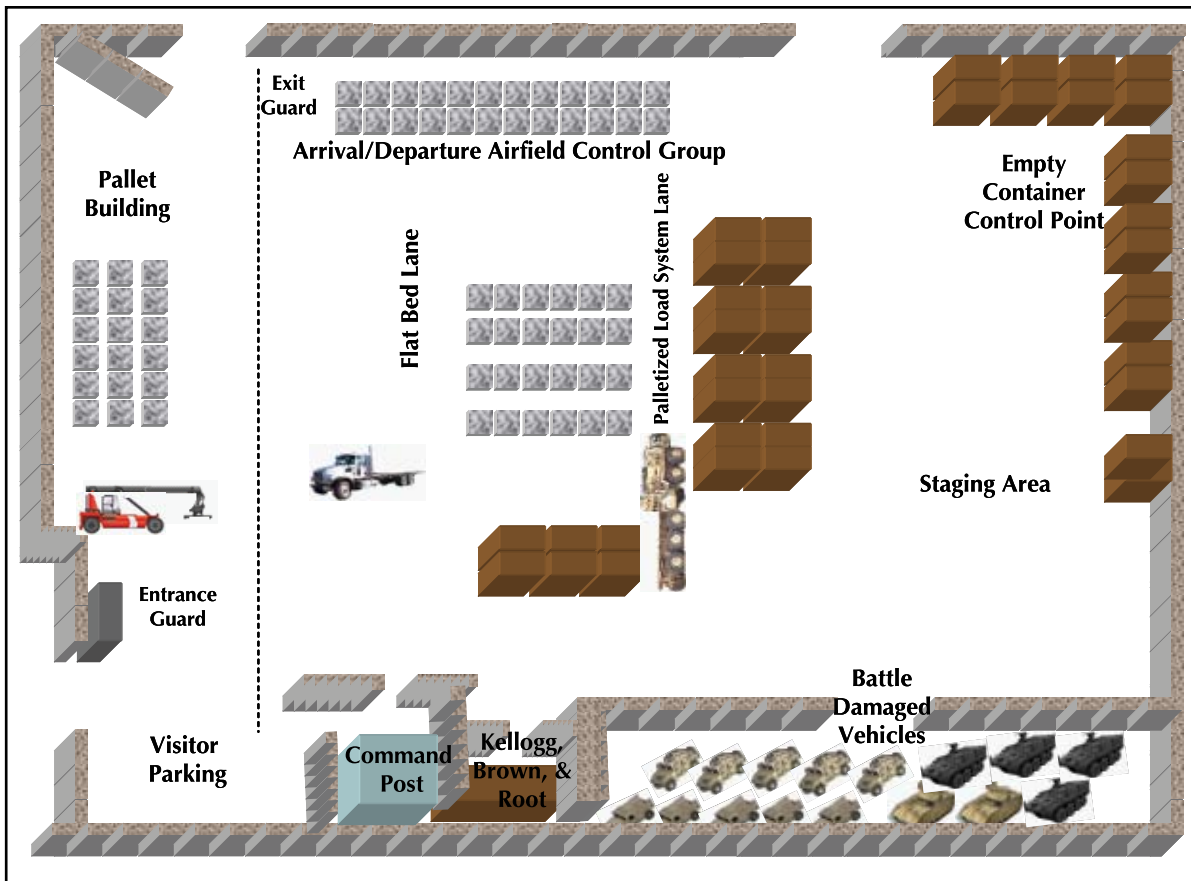
We also found that, as a result of the ineffective system, combat units were coming back to pick up cargo bound for them. The 4th Sustainment Brigade’s philosophy was to ensure that the combat units focused forward and that we would get them what they needed.

Solving the Problem

The 4th Sustainment Brigade solved the problem by creating a central receiving and shipping point (CRSP). CRSPs are not a new concept, but they were not being used to their full potential in the theater. In fact, a fragmentary order directed that CRSPs be used, but the order only required their use for class VII (major end items) and containers. Use of CRSPs was not considered for other classes of supply.

The 4th Sustainment Brigade took the concept to the next level by creating two CRSPs, one north and one west of Baghdad. These CRSPs were to act as transfer points for all supplies, including classes I (subsistence), II (clothing and individual equipment), IIP (packaged petroleum, oils, and lubricants), IV (construction and barrier materials), VI (personal demand items), VII, VIII (medical materiel), IX (repair parts), and X (materials for nonmilitary programs). Class V (ammunition) supplies remained at the ammunition transfer and holding point. These CRSPs would be the central location for all classes of supply; they would not be used for storage, just as transfer locations for cargo. The concept





This diagram is a proposed layout of a central receiving and shipping point with ample area to move vehicles in and out for loading and unloading.

was approved, and the assigned battalions secured the land and began the process of accounting for and transferring the supplies.

The companies required to run the two sites came out of hide and were not necessarily trained in CRSP operations. It took some time for the company commanders and the assigned Soldiers to execute the directed requirements for the operation because no other CRSPs existed to serve as models. The units were required to conduct 24-hour operations, and gathering the required gear to meet that requirement was not easy. The units needed lights, office space, entrance and exit gates, and other facilities and equipment. Once those items were secured, we were in business.

The concept required that the CRSPs become the central point for all cargo in the area. Combat sustainment support battalions within the 4th Sustainment Brigade traveled to local FOBs on a daily basis. To ensure maximum use of backhaul, trucks would pick up cargo bound for destinations other than their home FOBs and take it to the CRSP for transshipment.

Creating the CRSPs

Our first challenge was ensuring that the CRSPs were laid out effectively. We started building the CRSPs

at the beginning of the rainy season in Iraq. The northern CRSP was large and situated on relatively high ground. However, the CRSP west of Baghdad was in a dust pit, which made a nice transition to a mud pit at the hint of rain. The units had to move cargo around that CRSP to find dry transfer locations. We needed much help from the engineers and contract help from KBR to raise the ground level and allow drainage.

We then had the challenge of training the companies to operate the CRSPs. In the north, we had a cargo transfer company, which had the right equipment

and personnel to complete the mission. To the west of the city, we had a quartermaster supply company. These very motivated Soldiers had to create systems from scratch, and these systems changed daily based on tactics, techniques, and procedures and their growing experience.

Accounting for Cargo

Our next challenge was tracking and accounting for cargo. Up to 15 convoys arrived nightly, so cargo accountability was difficult. At first, the units were doing all accounting by hand, which required Soldiers to perform daily inventories. Much cargo was “lost” temporarily, and much was misshipped. The support mantra in the 4th Sustainment Brigade is, “Just get it done!” Our Soldiers fully understood that, so they accepted cargo that was not properly labeled just to get it off the trucks and send the trucks on their way; in the process, they inadvertently created a mountain of frustrated cargo. We wanted to maintain their proactive support attitude, but we needed to refine our system to make it effective.

Major Pat Laverenz, one of the brigade battle majors, created an accountability system using Microsoft Access. This system required input by the CRSPs and allowed anyone to track cargo based on TMRs,

transportation control numbers, or container numbers. The TIC was able to perform a daily sort to check for incoming and outgoing cargo. Since the system was accessible to everyone, anyone in the TIC or at the CRSPs could answer questions from customers. Corps support battalions (CSBs) that were traveling to a FOB also could check the program and find cargo bound for that FOB. This ensured that we were more effective in managing our transportation assets.

The CRSPs allowed the brigade to “split” the TMRs among CSBs. TMRs were sent to the TIC using the Battle Command Sustainment Support System (BCS3) TransLog Web, a web-based information program that ensured that all pertinent information was sent to the tasked units. However, this program did not allow us to split the TMRs to take advantage of our CRSPs, so we asked Major Laverenz to create another program. His program allowed us to import data from the BCS3 TransLog Web and split the TMRs. Everyone had access to this program, so they were aware of cargo as it moved through the system. They could allocate trucks to move the cargo once it was in a CRSP.

Managing Convoys

Before the creation of the CRSPs, filling TMRs averaged 14.3 days from receipt to completion. Most TMRs required less than four vehicles to move the cargo. If we traveled from the destination to the origin, we completed the TMR quickly. But, in most cases, we did not travel that direct route frequently. Therefore, many TMRs sat for weeks as we waited for enough cargo from that FOB to warrant a convoy.

With the CRSPs, we overhauled the system by creating regular routes based almost solely on customer unit sustainment requirements. The brigade “split” the TMR by assigning one unit to bring the cargo to a CRSP and asking another unit to take it to the destination. Since we had trucks making sustainment runs almost every day, cargo on TMRs sat for very short periods. The CRSP’s job was to account for the cargo, put it into the destination lane, and ensure that it was loaded on the next truck going to the destination.

With this hub-and-spoke concept, we were able to decrease the TMR completion days to 6.2 per TMR. In many cases, we would be ready to move a TMR on the same day that we received it. Of course, some movements still required more than 10 trucks. In those situations, we created a convoy that bypassed the CRSPs.

As mentioned above, theater trucks were coming to Baghdad with cargo and spending days driving to delivery locations. Our concept was to have theater trucks deliver cargo to the CRSP, and we would take that cargo anywhere it needed to go in our area of operations. This concept helped to decrease the aver-

age number of days that the theater trucks spent in Baghdad from 17 to less than 4. We also asked that theater backhaul operations retrograde cargo whenever they had uncommitted trucks. In this way, we were able to backhaul over 2,000 containers—triple that of the previous year—thereby saving the Department of Defense millions of dollars by returning unserviceable class IX items to the supply system. Returning theater trucks to the system quickly allowed them to move more cargo and increase their support to the warfighter.

Turning In Vehicles

During our tour, the Chief of Staff of the Army, General Peter J. Schoomaker, ordered that all soft-skinned vehicles be returned to the Army. The CRSPs became the central location for that operation. We created a turn-in location in the CRSPs and built ramps. We created office space in the CRSPs for the Army Materiel Command (AMC) to account for the unit turn-ins. Units in Baghdad turned in over 3,000 vehicles. The vehicles were brought to the CRSPs, where AMC used the Property Book Unit Supply Enhanced (PBUSE) system to take them off the unit commanders’ hand receipts. Theater transportation then came to the CRSPs to pick the trucks up and transport them to Kuwait. This made it much easier for the warfighters to rid themselves of the vehicles as quickly as possible and return their focus to the battle.

In all, over 30,000 pieces of cargo moved through our CRSPs in support of fighting units. Over 9,000 pieces of cargo were staged and sent to Kuwait for retrograde. The transit time for this cargo was reduced by more than half, and the system allowed for nearly 100-percent accountability.

Logistics operations change as the mission, enemy, terrain and weather, troops and support available, time available, and civil considerations change. Logisticians must look beyond old concepts to create more effective systems within their areas of operations. We must ensure that the customers get the support for which they ask and more. The CRSP concept and execution helped the 4th Sustainment Brigade achieve its goal of support to the warfighter. **ALOG**

LIEUTENANT COLONEL MICHAEL D. MELENDEZ IS THE S-3 OF THE 4TH SUSTAINMENT BRIGADE. DURING OPERATION IRAQI FREEDOM 04-06, HE SERVED AS THE BRIGADE’S TRANSPORTATION INTEGRATION OFFICER. HE HAS BACHELOR’S DEGREES IN GEOLOGY AND EDUCATION FROM TEXAS A&M UNIVERSITY-KINGSVILLE. HE IS A GRADUATE OF THE TRANSPORTATION OFFICER BASIC AND ADVANCED COURSES, THE AIRBORNE COURSE, THE COMBINED ARMS AND SERVICES STAFF SCHOOL, AND THE ARMY COMMAND AND GENERAL STAFF COLLEGE.

Munitions Sustainment in the Modular Force

BY CHIEF WARRANT OFFICER (W-4) DAVE BARRON, USA (RET.), AND LIEUTENANT COLONEL KEITH A. BEVERLEY, USA (RET.)

A rmy transformation strategy addresses the imperative to change the Army from a Cold War-oriented design to one that is more responsive, agile, and adaptable to present and emerging threats across the spectrum of operations. Transforming logistics and support for the force is an essential part of the transformation effort.

The Army's transformation to a modular force has changed the munitions sustainment structure significantly. At the tactical level, munitions capabilities have essentially migrated one echelon forward. The functions of the division ammunition office (DAO) now reside in the brigade ammunition office (BAO) of the brigade support battalion (BSB) support operations office (SPO). A larger ammunition transfer and holding point (ATHP) now provides ammunition resupply during major combat operations, and the ATHP now has the capability to perform automated inventory management during stability and reconstruction operations through the use of the Standard Army Ammunition System-Ammunition Supply Point (SAAS-ASP) software in conjunction with the SAAS-ATHP hardware.

At the operational level, changes under the modular force include the elimination of the division support command, corps support group, and corps support command and the transformation of the theater support command. The functions formerly performed by these organizations are now performed by the theater sustainment command (TSC), its forward command post—called the expeditionary sustainment command (ESC)—and the sustainment brigade.

This article provides information on the ammunition Standard Army Management Information System (STAMIS), SAAS Modernization (SAAS-MOD), and the environment in which it is used in the modular force. It addresses munitions operations and interactions among the various levels of munitions support. It also explains to combat arms, combat support, and combat service support (CSS) commanders and their staffs how to employ SAAS-MOD to best improve munitions support.

Operational-Level Changes

The Army of Excellence (AOE) force provided for the performance of ammunition materiel management functions at the theater area army, theater army, and corps materiel management centers. Modular force

transformation has migrated these functions to the TSC headquarters SPO (in the distribution management center [DMC]), the ESC headquarters SPO (in the DMC), and the Sustainment Brigade headquarters SPO. Each of these organizations is now documented in a table of organization and equipment (TOE) with a munitions branch and resourced with a SAAS-Materiel Management Center (SAAS-MMC) suite. So ammunition materiel management functions are now performed at the TSC, ESC, and sustainment brigade headquarters. These functions involve the overall management of authorizations and requirements and redistribution of ammunition assets within the theater.

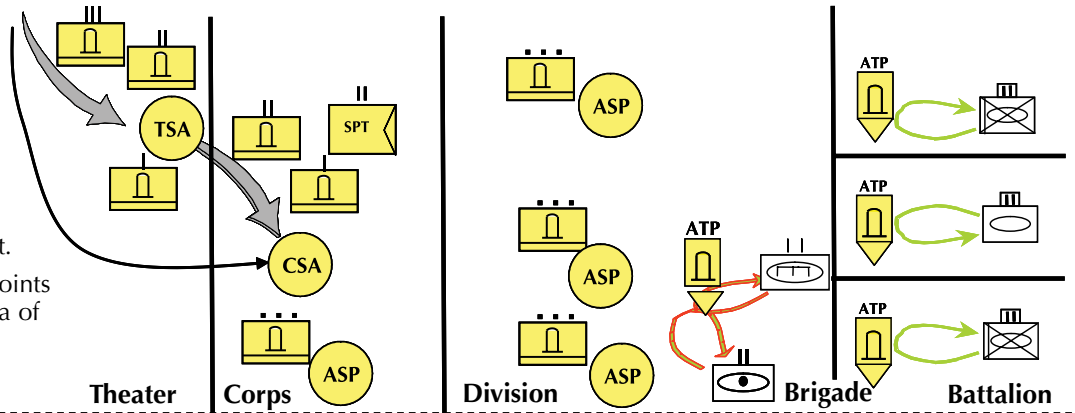
For effective munitions sustainment operations, the TSC must be the single authority for establishing and executing the munitions automation support architecture. The TSC headquarters DMC munitions branch, as the senior munitions manager in the theater, is the focal point in the theater architecture. The munitions branch of the DMC must provide subordinate sustainment brigades, modular ammunition companies, and ATHPs throughout the theater with all information required to establish the SAAS-MOD environment. This information includes storage point codes, Training Ammunition Management Information System (TAMIS) installation codes, munitions account codes (Worldwide Ammunition Reporting System, management center, storage point, and Department of Defense Identification Code account codes), authorized stockage levels, reporting structure, communications frequencies, and communications connection details. Some of these functions, such as stockage objective and TAMIS information, require close coordination with operational-level G-3 staff elements to ensure a synchronized effort.

A detailed connectivity matrix of all subordinate operating nodes is an effective method for ensuring that communication is established and maintained. Senior materiel managers and CSS automation management office (CSSAMO) staff should consider tracking data elements such as operation location (site name and storage point code), operating unit, unit identification code, Department of Defense Activity Address Code (DODAAC), Internet protocol address, type of network access (for example, Unclassified but Sensitive Internet Protocol Router Network [NIPRNET], CSS Automated Information Systems Interface [CAISI], or very small aperture terminal [VSAT]), and date of last connection

Structure - Arm

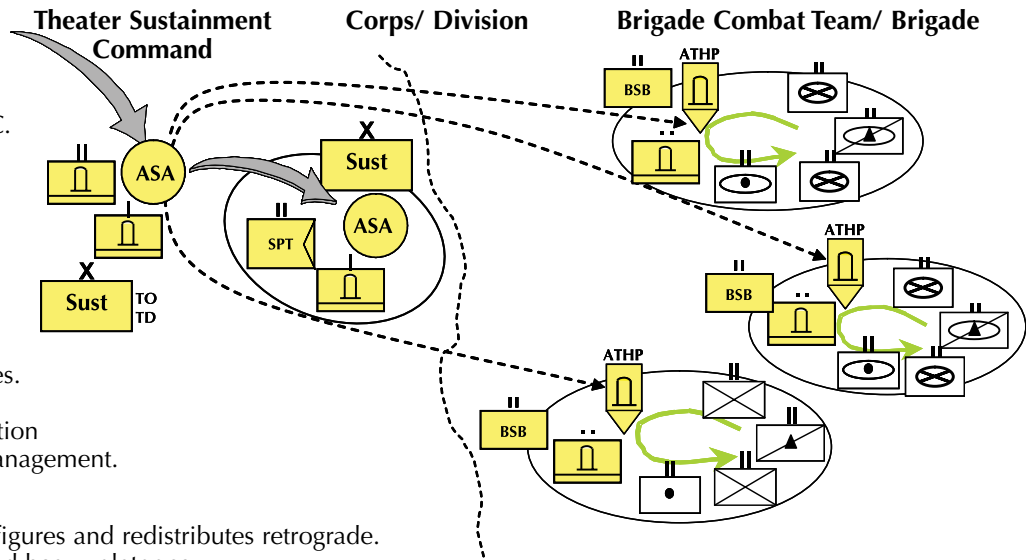
From

- Modular ammunition company headquarters and platoons, battalions, and groups based on geographical support using supply point logistics.
- Reliance on other echelons for support.
- Corps provided ammunition supply points (ASPs) and storage areas in division area of operations.



To

- Modular ammunition company headquarters and platoons and battalions based on METT-TC.
- Tailored configured loads delivered forward in the battlespace.
- Supports mission staging operations.
- Theater/ Expeditionary Sustainment Command
 - Receive, store, issue and reconfigure configured loads and build mission-configured loads (MCLs).
 - Maintain and manage theater-level stockages.
 - Support theater opening.
 - SAAS-MMC in sustainment brigade distribution management center for ammunition management.
- Division/Corps
 - Limited reconfiguration of MCLs and reconfigures and redistributes retrograde.
 - METT-TC organized with mix of medium and heavy platoons.
- Brigade Combat Team/Brigade
 - Embedded ammunition management function (SAAS-DAO).
 - Brigade organic 12-Soldier ammunition transfer and holding point (ATHP) design allows for munitions accountability and limited storage (SAAS-ASP).
 - Distribution platoons and companies distribute to unit level.
 - Limited ability to reconfigure loads.



Legend

ASA = Army support activity	METT-TC = Mission, enemy, troops, terrain, time, and civilian considerations	SPT = Support
ATP = Ammunition transfer point	MMC = Materiel management center	Sust = Sustainment
BSB = Brigade support battalion	SAAS = Standard Army Ammunition System	TD = Theater distribution
CSA = Corps storage area		TO = Theater opening
DAO = Division ammunition office		TSA = Theater storage area

A summary of the changes in the munitions sustainment structure between the Army of Excellence and the modular force.

by type (file transfer protocol, secured file transfer protocol, email transfer, or floppy-disk transfer). This matrix can be shared with network architects, information assurance managers, and network operations centers to ensure that the necessary Internet ports and protocols are maintained in an open status across the various network access points.

Each logistics echelon with a munitions branch is resourced with SAAS-MMC and munitions personnel. The Army has established a new military occupational specialty (MOS) for ammunition stock control and accounting specialists (MOS 89A) and will begin training new Soldiers in fiscal year 2008. This

management specialist will be the primary operator for SAAS-MMC and will bring greater subject-matter-expert depth to munitions materiel management.

In a mature modular force deployed environment, the TSC headquarters DMC munitions branch focuses on the link to the national-level provider (the Joint Munitions Life Cycle Management Command) and its subordinate national inventory control points. The TSC also maintains authority for the entire theater architecture. If a theater storage area is operating within the theater, the munitions branch provides materiel management for the theater storage area's ammunition support activity.

Probably one of the most dramatic changes that we have made in the concept for logistics support to the modular force has been in the area of materiel management. Gone are the division materiel management centers, corps materiel management centers, and theater army materiel management centers. And so, rightfully, there has been some angst about what happened to all of the materiel management functions formerly performed in these materiel management centers (MMCs).

—Major General Mitchell H. Stevenson
“Where’s My MMC?”
Army Logistician, May-June 2007

When employed, the ESC headquarters DMC munitions branch provides materiel management for subordinate sustainment brigades and for theater storage areas and corps storage areas assigned directly to the ESC. The ESC headquarters generates directives for subordinate sustainment brigades to pass on to assigned ammunition support activities. For example, if a shipping directive crosses a sustainment brigade’s area of responsibility, it should be generated from the ESC headquarters SAAS–MMC system. This process requires constant coordination between the ESC and sustainment brigade munitions staffs.

The sustainment brigade headquarters munitions branch directly manages stocks in assigned ammunition support activities through the SAAS–MMC suite organic to the branch. They generate directives for all movements within their assigned area of operations. Directives that are designated for out-of-sector movements are generated by higher echelon SAAS–MMC operational nodes.

Division Versus Brigade Ammunition Office

The DAO performed munitions management functions for the tactical level in the AOE force. This management function has moved forward one echelon in modular force transformation. The functions of managing brigade ammunition requirements now are performed at the BAO. They include maintaining ammunition requirements and visibility and distributing ammunition within the brigade combat team (BCT). The supported battalion’s S–4 is still the main logistics planner.

The new, robust BSB is a combat multiplier for the brigade commander, who now owns his own support. It is a more robust organization than the forward support battalion it replaced; it has base companies and forward support companies to support all of the brigade combined arms battalions.

One difference between the original Stryker brigade design and the current modular force design is the addition of an ordnance captain to the BSB BAO. This force structure realignment allows for the placement of the ammunition warrant officer in the ATHP. Management functions for the BAO include maintaining ammunition requirements and visibility and distribution within the BCT. The BAO is responsible for

distributing ammunition, verifying unit requirements, and tracking ammunition coming into the BCT.

The BAO coordinates munitions sustainment requirements with the first SAAS–MMC operational node within the support chain. The SAAS–DAO system is resourced in the BSB BAO with an MOS 89B sergeant first class as the primary operator. Currently, the only online STAMIS data exchange between SAAS–DAO and SAAS–MMC is the passing of resupply requests (RSR [required supply rate] transaction code) from SAAS–DAO to SAAS–MMC.

Ammunition Transfer Point Versus ATHP

In the AOE force, an ammunition transfer point (ATP) was resourced in each divisional forward support battalion, separate brigade, and armored cavalry regiment. Doctrine stated that an ATP was an event, not a location. Its mission was to transfer munitions from corps-level transportation assets to the vehicles of using unit support platoons without storing the munitions or allowing the munitions to touch the ground. The ATP was manned with MOS 89B noncommissioned officers (NCOs) and Soldiers, who used SAAS–ATP operated by the DAO NCO as an issue and inventory aid.

The modular force ATHP is approximately twice the size of its AOE-equivalent ATP. It is documented with SAAS–ATHP (line item number Z00712) and with an MOS 890A ammunition warrant officer; during the next TOE revision, an MOS 89A stock control and accounting specialist will be added. The ATHP also is documented with CAISI and radio frequency identification suites to connect the logistician and populate the in-transit visibility common operating picture.

The SAAS–ATHP is a new hardware and software configuration derived from Force XXI and Stryker BCT developments. The hardware is the same as the previously modernized SAAS–ATP suite. The software is the same as SAAS–ASP. The use of the software at this forward echelon provides for inventory management and national-level visibility of retail stocks at the BCT level. The previous SAAS–ATP software could not provide these doctrinal capabilities in a stability and reconstruction operations environment since it was designed as an inventory and issue aid for high-intensity major combat operations.

The main differences between an ASP and an ATHP are doctrinal employment, capabilities, and capacity. The notional ASP is operated by 1 or more ammunition platoons, while an ATHP is a 12-man section with very limited capabilities and capacity. During major combat operations, the ATHP needs to focus on throughput operations and rapidly transfer munitions to the using unit. During stability and reconstruction operations, the ATHP provides the brigade commander with the capability to centralize munition combat load inventories not needed for immediate combat operations. The ATHP now can report those stocks back to operational-level managers and national-level visibility systems in the same manner that SAAS-ASP does.

The BSB distribution company's SAAS-ATHP must maintain connectivity with all SAAS-MMC operating locations in the chain of support. The ATHP also maintains communications with the Headquarters, Department of the Army (DA), G-3 TAMIS-Redesigned server when it is operating the SAAS-ASP software variant.

New capability was fielded to SAAS with Software Change Package 08, which provided for a data sharing interface between TAMIS and SAAS. Using units now develop and submit ammunition requests (DA Form 581) in TAMIS. These electronic documents are passed to SAAS platforms operating the ASP software. The SAAS operator can accept or reject the request, with status passing back to the requestor. If the ammunition request is accepted, it is preposted to the SAAS issue process. The SAAS software transmits issue and turn-in transactional data back to TAMIS for posting to using unit accounts. This replaces the old training reporting process in SAAS-ASP, which was transmission of INFI files by the stock control section to TAMIS-R.

Adding Munitions Capabilities to the CSSAMO

Several resources are available to the combat commander and his staff when they use logistics automation. In current deployed operations, automation logistics assistance teams have been established in both the Kuwaiti and Iraqi zones. These organizations provide a ready reach capability for the logistics commander to access logistics automation subject matter expertise.

The Army is institutionalizing this support in the CSSAMO. In future logistics unit TOEs, a SAAS-MOD support structure will be added to the basic CSSAMO capability of logistics automation support. The future CSSAMO will be documented in a TOE with an MOS 89A ammunition stock control and accounting sergeant and a SAAS-DAO suite. This will provide the capability to troubleshoot SAAS-MOD software problems irrespective of the echelon of employment. The addition of an NCO to support SAAS-MOD provides a level of expertise not previously available to the logistics commander.

The sustainment commander and his staff must ensure that the CSSAMO munitions sergeant is trained and has the resources needed to perform his SAAS-MOD support duties. Additional training in systems administration and database management should be considered. This single representative will be the onsite troubleshooter for SAAS-MOD database and connectivity issues. The Army Logistics Management College at Fort Lee, Virginia, provides additional institutional and distributive training for CSSAMO personnel.

The CSSAMO munitions sergeant needs to establish and maintain liaison with SAAS-MOD operating elements within his parent, supported, and supporting organizations. In a deployed environment, he needs to rapidly identify supported organizations, assess support requirements, and coordinate for higher-echelon support. The CSSAMO munitions sergeant must maintain communication with the Project Manager, SAAS-MOD, Customer Assistance Office and with higher echelons of the SAAS-MOD support structure. Coordination for DODAAC information and NIPER-NET access should be a primary consideration during the initial stages of any deployed operation. Insights gained from recent operations have shown that connectivity issues are one of the most significant challenges to effective STAMIS operation.

Eventually, SAAS-MOD will be subsumed into the Global Combat Service Support-Army (Field/Tactical) as a component of the Single Army Logistics Enterprise. Until this enterprise solution is fully realized, logistics commanders, staffs, and managers at all levels will need to continue to maintain competence in the automated munitions management process through the use of SAAS-MOD.

ALOG

CHIEF WARRANT OFFICER (W-4) DAVE BARON, USA (RET.), SERVES AS A COMBAT DEVELOPER WITH THE ARMY TRAINING AND DOCTRINE COMMAND (TRADOC) CAPABILITY MANAGER FOR SUSTAINMENT COMMAND AND CONTROL AT THE ARMY COMBINED ARMS SUPPORT COMMAND AT FORT LEE, VIRGINIA. A GRADUATE OF THE WARRANT OFFICER STAFF COURSE, HE HOLDS AN ASSOCIATE'S DEGREE IN LIBERAL ARTS FROM THE UNIVERSITY OF THE STATE OF NEW YORK.

LIEUTENANT COLONEL KEITH A. BEVERLEY, USA (RET.), WORKS FOR LOGISTICS AND ENVIRONMENTAL SUPPORT SERVICES CORPORATION (LESCO) AND SERVES AS A LOGISTICS SYSTEMS ANALYST FOR THE TRADOC CAPABILITY MANAGER FOR SUSTAINMENT COMMAND AND CONTROL AT THE ARMY COMBINED ARMS SUPPORT COMMAND AT FORT LEE, VIRGINIA. A GRADUATE OF THE ARMY COMMAND AND GENERAL STAFF COLLEGE AND THE LOGISTICS EXECUTIVE DEVELOPMENT COURSE, HE HOLDS A MASTER'S DEGREE IN BUSINESS MANAGEMENT FROM TROY STATE UNIVERSITY.

Reorganizing a Sustainment Brigade Staff for the Fight

BY COLONEL GUSTAVE F. PERNA AND STAFF SERGEANT JOSHUA SALMONS

On 3 January 2005, the 4th Infantry Division transformed under modularity. The forward support battalions no longer fell under the division support command (DISCOM); they transformed to become modular brigade support battalions (BSBs). The remnant of the DISCOM became the brigade troops battalion, consisting of a headquarters company, battalion and brigade staffs, a motor pool section, medics, and a signal company. This is how the 4th Sustainment Brigade deployed to Iraq in September 2005. The brigade was responsible for overseeing logistics for Multi-National Division-Baghdad during Operation Iraqi Freedom 4.

As I assessed the current situation and our future mission, I felt uncomfortable with the traditional logistics staff organization. I felt that the staff was too functional and not flexible enough to keep up with the demands on the battlefield. Thus, I made the decision to reorganize the current brigade staff structure, which at that time was organized using the 15 May 2005 modification table of organization and equipment (MTOE).

Our original transformation MTOE placed a clear emphasis on the support operations (SPO) cell, with 179 personnel allotted to it. I decided to realign Soldiers and sections to focus the staff on tactical operations and not on logistics operations; the brigade S-3, originally 12 people strong, became the new center of gravity instead of the SPO.

To accomplish this, I brought together the “Big 5”—the brigade sergeant major, the executive officer, the SPO, the S-3, and me. I provided my commander’s intent and asked for their recommendations. Based on their input and my final assessment, I decided to reorganize the staff into three parts: current operations, future operations, and administrative operations. The SPO headed future operations, the S-3, current operations, and the S-1 administrative operations. (See chart at right.)

Rationale for the Reorganization

Basically, I focused on the maxim, “Know yourself, know your enemy, know your environment.”

First, I wanted to make sure we “knew ourselves” and had 100 percent of our Soldiers doing 100 percent of the work. Several staff sections under the transformed

MTOE were not being used effectively. Several hard looks at who was working where and with whom were required to improve staff utilization. With an initial allocation of personnel into the three proposed sections before deployment, a reshuffling of personnel among sections 30 days into the deployment once needs were identified, and a series of final polishing changes 90 days after that, we refined our MTOE to staff a year-long, 24-hour-a-day, 7-day-a-week deployment that was both integrated and effective.

Second, I had to make sure that everybody “knew their environment” and, most importantly, had a clear understanding of the battlefield common operating picture. All Soldiers on the staff had to know what their coworkers did and how they accomplished their missions, and they would need to fill in as those personnel were called away on missions or emergencies. This would ensure continual operations, despite the normal setbacks of any deployment. I also was concerned that the BSBs, which provided direct support to maneuver units, no longer had a direct link to my headquarters. I believed that our responsibility was to avoid logistics “speed bumps” by foreseeing future requirements and needs, then mobilizing our assets to meet those needs before they were felt. Knowing that these bumps would occur, given the new environment created by transformation, was a way our new staff could proactively mitigate potential shortfalls.

Third, to “know our enemy,” we took maximum advantage of command, control, communications, computers, intelligence, surveillance, and reconnaissance capabilities. This was accomplished by constructing a command information center (CIC), using equipment such as Command Post of the Future. The CIC was central to our tracking and managing of missions in our area of operations and provided unparalleled visibility for battlefield assets.

Intelligence completely drove our operations. We moved, slept, and operated by watching and predicting enemy patterns, all while altering our own operations to make ourselves less conspicuous. Every decision I made having to do with Soldiers supporting our customers came from data and intelligence collected and analyzed in the CIC.

The Staff Sections

Each section had command over a specific set of tasks, ensuring a level of detail not possible under larger, combined sections. (See the chart page 13.)

The administrative operations section provided administrative support and oversight of human resources and finance operations to units within the brigade area of responsibility (AOR). The section's personnel managed and mitigated any internal issues within the brigade. We folded organizational supply, organizational maintenance, legal, and reenlistment functions into administrative operations. Section personnel interfaced with the brigade's subordinate battalions and kept the internal workings of the unit under control.

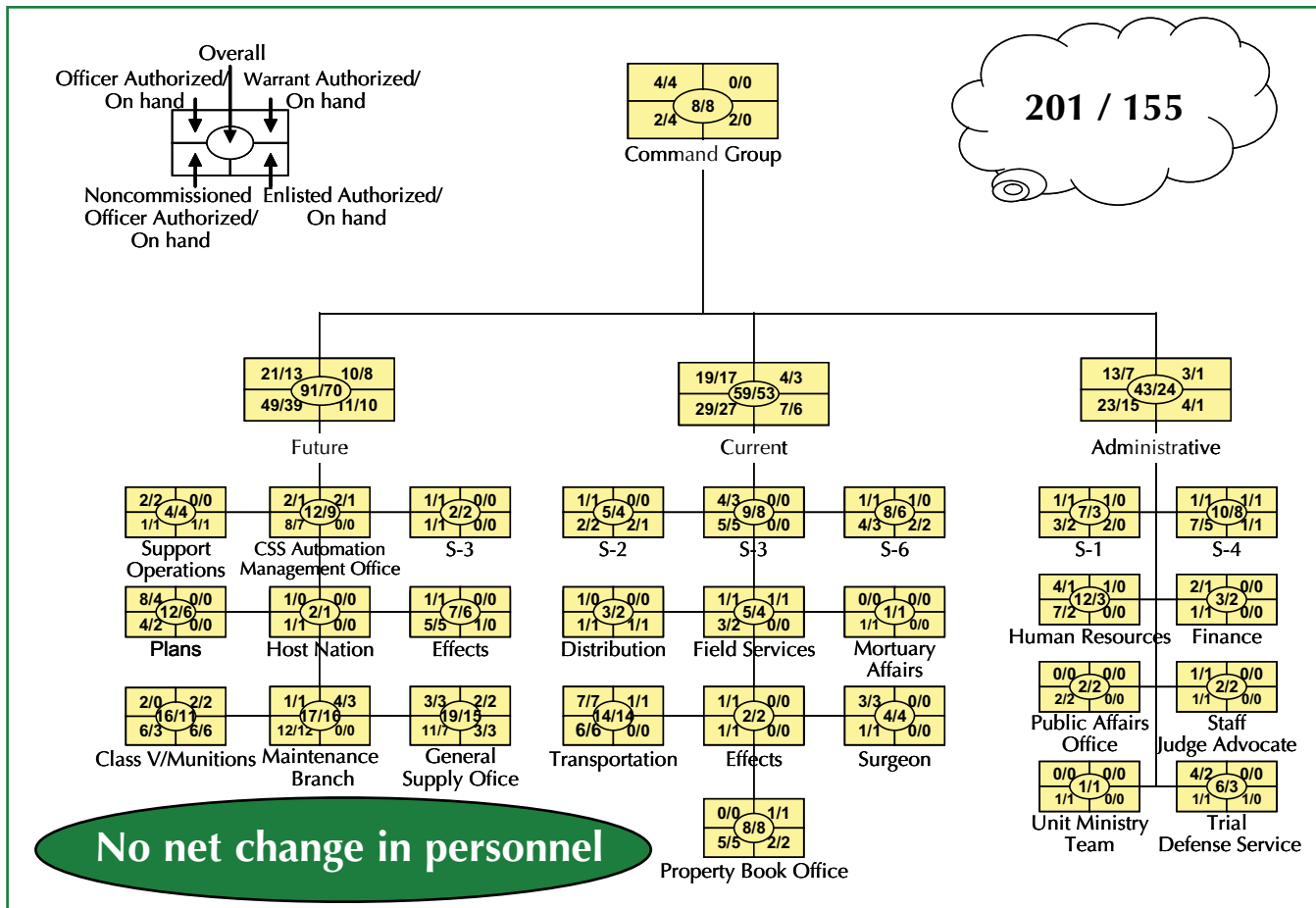
The challenge for the administrative operations section was dealing with an Adjutant General's Corps and Finance Corps that were not yet transformed. That meant that the human resources and finance sections could not be fully evaluated and had to lend a hand with other personnel and supply sections. Although we were ready to facilitate the new doctrine concerning these sections, our environment in theater did not allow us to fully test these new resources. But by keeping house, the administrative operations section allowed the future operations and current operations sections the chance to perform their duties.

The future operations section planned, supervised, and directed logistics support within the brigade AOR. It determined the concept of support, set priorities, and coordinated and ensured that combat service support (CSS) was provided to units in the supported AOR. Future operations interfaced with the 4th Infantry Division, the largest customer in our area of operations, and the 3d Corps Support Command (COSCOM), our higher headquarters. Section personnel determined the issues and support requirements for the division and became the interface between the G-4 and G-3, determining future requirements.

This was the big departure from tradition. Obviously, the SPO is normally the center of gravity on the staff. He is dead in the middle of the fight. But being involved with every aspect of operations means he cannot step back from the forest to see the trees, so to speak. The realignment of the staff into the three sections allowed the SPO to move into the planning phase, to really see the unit and our environment. He had all the assets to interface with the subordinate battalions. Once he was free to plan and track requirements, we were able to see the future.

The future operations section's focus became requirement capabilities, commodities tracking, and planning—all the things that lead up to and determine

The initial reorganization of the 4th Sustainment Brigade staff in September 2005 created three sections: future operations, current operations, and administrative operations.



if a convoy needs to be executed. Section personnel determined what needed to go on a convoy and what the brigade needed from higher levels. They had time to plan varying convoy schedules so that combat logistics patrols (CLPs) were not forming patterns that the enemy could recognize. They could alter routes. The section had the time to monitor upcoming fragmentary orders (FRAGOs) from the division and the COSCOM, allowing them to preempt and plan for imminent logistics requirements. Once a need was recognized, movement planned, and an analysis brief approved, the operation was handed over to current operations.

The brigade S-3 was underutilized under the original MTOE, with a section of only 12 Soldiers. As the head of current operations, his section grew to 54 Soldiers and he was catapulted to the forefront as the central focus in the CIC. The current operations section planned, supervised, and directed CLP operations. It executed CSS priorities and CLP operations and maintained our battlefield situational awareness.

By using the leeway created by the future operations section and our ability to foresee upcoming requirements, we knew what CLPs would be needed and what we were doing 72 to 96 hours out. This allowed us to use intelligence on the enemy and make decisions, such as whether to go on a mission or wait to go on the following night, when an analyzed pattern of enemy activity said the roads would be safer.

Because it was a separate section devoted to monitoring convoys and tracking capabilities, current operations could focus on keeping Soldiers safe. The section's personnel knew what equipment was operational in each battalion. They could reroute convoys and respond to changes as the missions progressed. By having their focus on missions at hand and using the new tools in the CIC, like Command Post of the Future, they were able to paint an unprecedented, comprehensive picture of our mission as it was achieved, mission by mission, truck by truck, and road by road.

The current and future operations sections did come together on some issues. Even when an operation was "handed over," the deputy SPO, permanently assigned to the CIC, was available to share his knowledge on requirements and FRAGOs. He also was able to give detailed information on the "whys and wherefores" when units or higher headquarters called to ask questions about missions. Current operations personnel also were able to give information to future operations on the capabilities of battalions and changes in the environment to help future operations plan more effectively.

Pros of the New System

When we redesigned the staff, it allowed us to create logistics flexibility and build a bridge into the current tactical situation so that we could manage the tactical

risk. What spurred the changes was thinking about how to execute transformation. It was my opinion that too much emphasis was placed on logistics support and too little consideration was given to the tactical environment. We needed to change this mindset, and that would require a major paradigm shift.

When intelligence drives operations, you act instead of react. When we watched the increasing use of improvised explosive devices on one of our main supply routes traveling north and south, we not only took a day off to change our patterns and avoid the emplacements; we also moved the destination company completely, so the convoys were going east to west instead of north to south. We could not have done that if we were not seeing our future logistically and creating flexibilities.

Another example of intelligence and flexibility was the addition of fuel bags to forward operating bases (FOBs). This was not a doctrinal solution. But, by adding bags to FOBs, we gained a 3- or 4-day leeway in how often we had to flow fuel. We did not have to push every day, and we had a window of opportunity to wait if our intelligence showed something threatening. The whole point was that, to fight this enemy, we had to create flexibility within our formation.

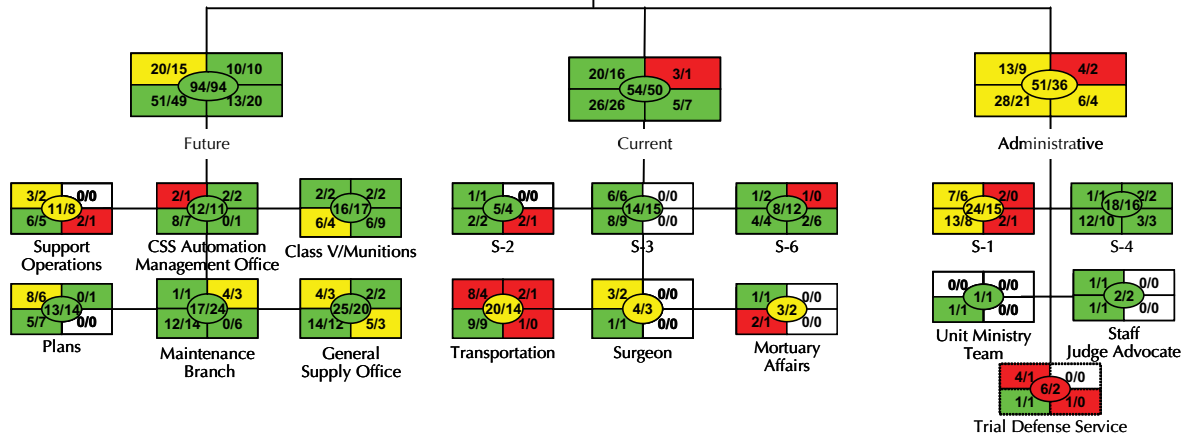
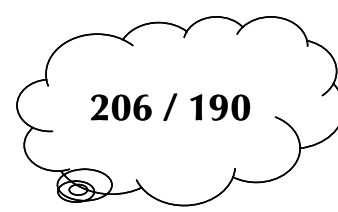
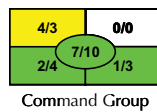
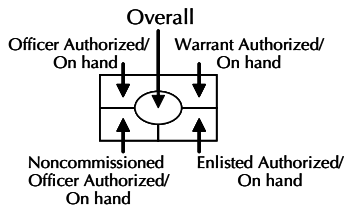
By having the split in our staff, we were flexible, could adapt, had focus, and were not overwhelmed. Last-minute missions arose, but they were not the norm. Soldiers got their rest. Vehicles were maintained. Missions were planned thoroughly. Routes were familiar. Intelligence was current. Intelligence was available. Intelligence helped save our Soldiers' lives.

Cons of the New System

Was our new system perfect? No, of course not. Within 30 days of our deployment, we realized that splitting assigned personnel half-and-half between the future operations and current operations sections was not working. We knew some changes were needed, but we looked and saw the need for ourselves and made the required adjustments.

I directed the S-1, S-3, and SPO to come up with a task and purpose for each of their sections. Doing so allowed me, and them, to see more precisely who was needed where. All planners moved from the S-3 to the SPO, and the transportation personnel helping in the SPO moved to the S-3 after we determined that they would be used more fully in current operations. We found that certain sections would be better placed in another area. We did not just make the changes and say we were done; we reevaluated the situation and executed accordingly. Ninety days later, we noticed that smaller changes were needed. Again, we adapted. We were never so set in our routine that we could not see ourselves clearly.

I also had to work with my higher headquarters to inform them on how I was doing things. Some



As of 20 November 2006

80 percent and above
 50 to 79 percent
 50 percent and below



A second adjustment to the staff reorganization produced this structure.

issues with communications arose. For example, the COSCOM normally called on brigade SPOs for questions about duties that our S-3 was performing; with a few phone calls and some adjusting, all was worked out. But even those setbacks could have been prevented with a little more foresight.

When I saw what would be expected of my staff and me, I knew we had to change. The MTOE we had was the MTOE we had. I was not going to get any more Soldiers or fill any more slots. It was a reality that battalions and companies were going to come from all over the world to join our formation. Thus, we realigned our MTOE, adapted, and executed aggressively so we could support our number one priority—the maneuver Soldier.

With transformation, you can roll up your sleeves or you can wring your hands, but you cannot do both. Transformation is happening. It is my firm belief that we cannot just give up and say that we are not able to do something when we see a need in theater. We have to figure out how to do it. Our job should not be to make things easier for us but to make things easier for the warfighters.

Part of doing that comes from flexibility; part of it comes from discipline; most of it comes from a positive attitude and figuring out how to say “yes.” We think we are the greatest Army in the world—

and we truly are—but we cannot rest on our laurels. So we must see the environment, see ourselves, see the enemy, and then make adjustments as required. By doing these things, we will always be the greatest Army in the world. Go out and be great. **ALOG**

COLONEL GUSTAVE F. PERNA IS THE COMMANDER OF THE 4TH SUSTAINMENT BRIGADE, WHICH RECENTLY RETURNED FROM PARTICIPATING IN OPERATION IRAQI FREEDOM. HE HAS AN ASSOCIATE’S DEGREE IN BUSINESS ADMINISTRATION FROM VALLEY FORGE MILITARY ACADEMY, A BACHELOR’S DEGREE IN BUSINESS MANAGEMENT FROM THE UNIVERSITY OF MARYLAND, AND A MASTER’S DEGREE IN LOGISTICS MANAGEMENT FROM THE FLORIDA INSTITUTE OF TECHNOLOGY. HE IS A GRADUATE OF THE INFANTRY OFFICER BASIC COURSE, THE ORDNANCE OFFICER ADVANCED COURSE, THE LOGISTICS EXECUTIVE DEVELOPMENT COURSE, THE SUPPORT OPERATIONS COURSE, THE ARMY COMMAND AND GENERAL STAFF COLLEGE, AND THE INDUSTRIAL COLLEGE OF THE ARMED FORCES.

STAFF SERGEANT JOSHUA SALMONS IS A JOURNALISM INSTRUCTOR AT THE DEFENSE INFORMATION SCHOOL AT FORT MEADE, MARYLAND. HE HAS A BACHELOR’S DEGREE IN COMMUNICATIONS FROM CEDARVILLE UNIVERSITY IN OHIO, AND HE IS PURSUING A MASTER’S DEGREE IN BUSINESS ADMINISTRATION FROM BAKER BUSINESS COLLEGE IN MICHIGAN.

Modular Medical Logistics Support at the JRTC

BY COLONEL MITCHELL E. BREW AND CAPTAIN SHAWN R. CAMPBELL

The 32d Medical Logistics Battalion deployed a forward distribution team with the 82d Sustainment Brigade during its JRTC rotation, demonstrating the benefits of modular logistics to the medical community.

The ongoing Global War on Terrorism continues to remind us that we face an adaptive enemy. Today's combat arms units must be properly trained, prepared, and equipped to respond to this changing threat. Likewise, combat service support units, especially medical logistics units, must prepare to provide uninterrupted service to an amorphous, non-linear battlefield. This preparation is critical because it provides lifesaving resources and improves the quality of healthcare provided to our forces.

The Joint Readiness Training Center (JRTC) at Fort Polk, Louisiana, is one venue for training to meet the needs of the Global War on Terrorism. The JRTC focuses on improving unit readiness by providing highly realistic joint and combined arms training across the full spectrum of conflict (current and future).

During the JRTC 06–06 rotation, the 32d Medical Logistics Battalion sent a small modular forward distribution team (FDT) with the 82d Sustainment Brigade to provide medical logistics support. The team consisted of a Medical Service Corps first lieutenant with combat experience in Operation Iraqi Freedom (OIF) 04–06, four medical supply specialists, and a medical maintenance technician. The FDT served as a critical modular plug to facilitate the flow of class VIII (medical materiel) from the supply point outside the area of operations to the customer, ensuring rapid, direct medical maintenance support for task force units.

The FDT's goal was to integrate with the 82d Sustainment Brigade support operations cell to provide subject matter expertise and assistance by linking tactical medical logistics requirements with strategic- and operational-level capabilities. In turn, supporting the 82d Sustainment Brigade provided the FDT an opportunity for coordinating support for combat operations, obtaining current enemy intelligence reports, and monitoring unit supply status.

Benefits of Participating in the Training

Integrating into the 82d Sustainment Brigade offered FDT personnel a comprehensive view of the battlefield, which improved the team's ability to take a proactive approach to support operations. The FDT was able to

predict medical supply requirements, effectively order preconfigured supply packs before operations began, and deliver the supply packs to the supported task force units in a timely manner. Successful integration of the 82d Sustainment Brigade's support operations cell and combat health logistics (CHL) operations led to effective supply chain management.

The incorporation of the FDT into the 82d Sustainment Brigade was an integral part of combat service support mission success at the JRTC. It offered the FDT the ability to coordinate with other division commodity managers, section chiefs, and transportation assets. This provided FDT leaders with specific advantages in accomplishing the CHL mission using external (nonmedical) support. The major advantages included simulating class VIII transportation as part of supply chain operations and access to the task force movement planners. FDT personnel also provided the brigade medical planners with an informed and up-to-date assessment of stockage levels and class VIII supply chain issues at echelons-above-brigade level.

FDT Functions During Training

CHL operations at JRTC 06–06 were similar to those experienced in OIF 04–06. In OIF, medical units typically deployed with personnel who were unfamiliar with medical logistics procedures because of military occupational specialty shortages and insufficient training. In response to this shortfall, FDT personnel regularly offered training in automation platforms (the Theater Army Medical Materiel Information System [TAMMIS] or TAMMIS Customer Assistance Module [TCAM]) operations and basic supply chain management operations. Medical units often deployed without the recommended days of supply (DOS) for class VIII. The most critical supply shortages included combat lifesaver equipment and medical materiel related to the trauma and sick call medical equipment sets. In both OIF and JRTC 06–06, the FDT successfully relieved the strain between deployment shortfalls and current operations. The key link was developing the appropriate DOS needed to maintain medical materiel levels at the treatment facilities.

The FDT also offered a distinct and valuable service to all echelons of medical care. During JRTC 06–06, the 28th Combat Support Hospital (CSH) benefited from the FDT support. Using an FDT at the CSH enabled the CHS medical logistics team to focus on internal supply issues and operational concerns while using the FDT for external support requirements. This action reduced the strain placed on the CSH during split-based operations. Direct communication between the CSH and the FDT allowed the CSH to tap into the knowledge of FDT personnel and the FDT's visibility of external supply systems that affect the availability of medical supplies. The FDT support of level I and level II treatment facilities was similar to that of the CSH.

The FDT also provided critical customer assistance to the brigade medical supply office. The mission of the FDT was to provide the unit with personal customer service; automation system installation, setup, and training; local CHL expertise; class VIII supply chain visibility and tracking; and medical equipment maintenance and repair.

Automation and connectivity were critical tasks for the FDT, so it conducted training and rehearsals on the very small aperture terminal (VSAT) and on the setup, operation, and establishment of a local area network and network troubleshooting. The team also had to be familiar with manual supply procedures in the event of automation failure, so the FDT trained on establishing unit accounts, standardizing document serial numbers, developing push packages, and developing a proactive logistics support attitude. The FDT's success in supporting the 82d Sustainment Brigade and the 28th CSH resulted from conducting training and rehearsals before the deployment.

Lessons Learned

The JRTC 06–06 rotation offered many opportunities for the use of a modular medical logistics system and provided many lessons learned. The rotation, in conjunction with lessons learned during OIF, also identified key equipment and training challenges associated with a modular system. Improvements in the following areas would significantly enhance modular medical logistics for future operations.

Communications equipment. Procuring and training on communications equipment, primarily a voice over internet protocol (VOIP) telephone system, would provide the team with a reliable means of communicating with both customers and supply agencies. Current communications assets do not provide the capability to communicate beyond line of sight.

Defense Medical Logistics Support System (DMLSS). Having remote server access to DMLSS would provide much needed awareness of, and access to, supply requisition status, transaction registers, and due-out reports on a consistent basis. Access to

DMLSS provides medical logistics personnel with visibility of the supply chain and customers with timely information. Access to, and integration with, the source of supply's class VIII requisition system (DMLSS) could vastly improve the FDT's ability to provide responsive CHL support.

Real-time data. The availability of real-time data would help the medical planner decide how to support the warfighter. The medical logistics support personnel from Bayne-Jones Army Community Hospital at Fort Polk were not available 24 hours a day to provide updated status, so the ability to view the data on line would allow planners to be more responsive.

Unit class VIII account. Establishing the unit class VIII account is a critical step in establishing a unit in a new area of operations. Units should request contact information for this resource from the medical planners within their command. The use of the medical FDT resource will drastically improve a unit's readiness and ability to perform its lifesaving mission.

Modular medical logistics provided a ready, relevant, and reliable product for the 82d Sustainment Brigade and the 28th CSH during JRTC 06–06. The 32d Medical Logistics Forward Distribution Team confirmed the value of the modular system. The modular medical logistics model is critical to the future success of the combat health logistics mission at the JRTC and in real-world combat operations. **ALOG**

COLONEL MITCHELL E. BREW IS THE DEPUTY CHIEF OF STAFF FOR LOGISTICS OF THE 44TH MEDICAL COMMAND AT FORT BRAGG, NORTH CAROLINA. HE HOLDS A B.S. DEGREE IN BUSINESS FROM THE STATE UNIVERSITY OF NEW YORK AT BUFFALO, AN M.S. DEGREE FROM THE UNIVERSITY OF SOUTHERN CALIFORNIA, AN M.B.A. DEGREE FROM GEORGE WASHINGTON UNIVERSITY, AND AN M.H.A. DEGREE FROM BAYLOR UNIVERSITY. HE IS A GRADUATE OF THE ARMY MEDICAL DEPARTMENT BASIC AND ADVANCED COURSES, THE ARMY COMMAND AND GENERAL STAFF COLLEGE, THE LOGISTICS EXECUTIVE DEVELOPMENT COURSE, THE JOINT MEDICAL PLANNER'S COURSE, THE ARMY FORCE MANAGEMENT COURSE, AND THE MEDICAL LOGISTICS MANAGEMENT COURSE.

CAPTAIN SHAWN R. CAMPBELL IS THE DEPUTY SUPPORT OPERATIONS OFFICER OF THE 32D MEDICAL LOGISTICS BATTALION. HE HOLDS A B.S. DEGREE IN HUMAN DEVELOPMENT AND FAMILY STUDIES FROM THE UNIVERSITY OF MISSOURI-COLUMBIA AND IS A GRADUATE OF THE ARMY MEDICAL DEPARTMENT OFFICER BASIC COURSE.

THE AUTHORS ACKNOWLEDGE THE CONTRIBUTIONS TO THIS ARTICLE BY MAJOR BENITA SHULTS, THE LOGISTICS STAFF OFFICER OF THE 44TH MEDICAL COMMAND, AND CAPTAIN JASON FAIRBANKS, ASSISTANT G-4 OF THE 44TH MEDICAL COMMAND.

The Diverse Missions of the Movement Control Team at Camp Cedar II

BY CAPTAIN RANDALL W. NEWMAN, FIRST LIEUTENANT PAUL A. KAHN, AND FIRST LIEUTENANT RICHARD F. ROGERS III

To support units medically, a logistician relies on his ability to assess the situation and rapidly adapt to accomplish the mission.

Camp Cedar II is the largest convoy support center in Iraq. Maintenance, food, lodging, security, medical support and exchange, and recreation services are combined in one location to support the brave men and women who drive the hazardous supply routes of Iraq—one of the most dangerous jobs in the theater.

The movement control team (MCT) is the heart of Camp Cedar II. The mission of the 618th MCT, which is assigned to the 49th Transportation Battalion (Movement Control) of the 13th Sustainment Command (Expeditionary), at Camp Cedar II is threefold. First, it provides highway regulation and in-transit visibility (ITV) for the main supply route in southern Iraq. Second, the MCT organizes theater sustainment into convoys according to Multi-National Corps-Iraq (MNC-I) priorities. Third, it assists other units and supports the larger effort as needed.

Highway Regulation and ITV

Camp Cedar II is the sustainment hub for southern Iraq and serves as the first destination reporting point for theater sustainment coming from Kuwait into the MNC-I area of responsibility on the main north-south supply route. Camp Cedar II also is home to the largest fuel farm in Iraq and stores millions of gallons of fuel. Four staging yards at Camp Cedar II accommodate convoys made up of common-user land transport (CULT), private contractor sustainment, bulk fuel, and private security vehicles. The MCT must maintain visibility of these convoys in order to manage the supply route while meeting MNC-I priorities.

The MCT regularly publishes what is called the “Camp Cedar II MNC-I Tracker” to keep the corps movement control battalion and the MCT abreast of the convoys leaving the camp and the trucks waiting to be pushed forward. Customers call the MCT on a regular basis wanting to know where their trucks are and when they will be pushed forward. They also call to ask for visibility over a truck or a convoy or to request that their equipment be given a higher priority. Requests for ITV are usually simple enough, but the

MCT does not set priorities for movement; those priorities are set at the corps level.

Along with the thousands of trucks that move through Camp Cedar II come contractors from many different companies. Because they are dealing with military units, the contractors always think their cargo is the top priority. They call or visit the office wanting to know when their trucks are moving because drivers are paid per push, not by salary. If their cargo is a low priority, their trucks can sit in the yard for days, and that hurts their bottom line. Some contractors demand that their trucks have priority because “the big guys in Balad” want them to be pushed. Obviously, that is not the way it works. Although money is a concern, mission accomplishment and Soldier safety take priority.

Theater Sustainment Convoys

Every day, hundreds of sustainment trucks arrive from the Kuwait border crossing known as Khabari. These trucks come organized by classes of supply, not by destination. The MCT must fuel them, sort them by destination, and then stage them to move. The MCT also directly contacts various U.S. and coalition forces and requests convoy protection platforms to support both onward movement and the retrograde of empty trucks.

After coordinating with the theater security brigade and publishing the push plan, the MCT prepares lanes for movement. This can be a daunting task because hundreds of trucks are fueled and sorted daily. Adding to the complexity of the mission are all of the “behind the scenes” activities, such as feeding more than 1,000 contract drivers daily, keeping the yard free of trash and debris, providing medical support when needed, and mediating when tensions build from being on the road for days at a time. KBR employees take the lead in ensuring that these difficult tasks are completed.

Contracted bulk fuel convoys do not require as much coordination from the MCT. The corps’ sustainment command publishes forward operating base fuel requirements, and the supporting sustainment brigade

turns them into requirements for the Camp Cedar II fuel farm. KBR, in turn, uses the fuel requirements to plan the appropriate number of bulk fuel convoys on a given day and stages and uploads the required tankers. The MCT must assign an appropriate convoy start time and trip ticket.

Military convoys work differently. These convoys usually rest overnight at Convoy Support Center Scania, but they will stop at Camp Cedar II for maintenance, route status changes, or medical evacuation coverage changes. The MCT escorts them to their fueling and staging lanes, provides intelligence, issues trip tickets, and assigns start times. Liaisons from the theater-level transportation group assist the MCT in meeting the needs of the military convoys.

A Part of the Larger Team

The MCT also must support requirements tasked down by higher headquarters. For example, the 618th MCT was tasked with helping Camp Delta establish an air terminal movement control team (ATMCT). Two Soldiers from the 618th MCT were assigned to Camp Delta to provide expertise in setting up the ATMCT. The Soldiers helped Camp Delta establish its ATMCT capability in just a few months, and they accomplished it with only two transportation management coordinators and some additional manpower from the supporting brigade.

Other units are just as quick to assist the Camp Cedar II MCT. When the number of trucks from Khabari to Camp Cedar II exceeds the number of trucks that Camp Cedar II can send north, a backlog is created. These trucks often contain perishables that must reach their destination quickly. In these cases, various commands have been able to provide additional escorts to bases like Logistics Support Area (LSA) Anaconda and Victory Base Complex, where the bulk of trucks stop before heading to their final destinations. On occasion, other units have even provided backhauls or deadheads (security vehicles traveling from distant locations to escort supply vehicles), which is a huge help to the MCT.

The Future

The surge in U.S. forces in Iraq will bring a greater number of both sustainment and CULT assets to the theater. This will increase the demand for yard space as well as the number of escorts required on a daily basis. A surge of 20,000 Soldiers roughly equates to a 16-percent increase in personnel. If there is a proportional increase in the number of sustainment trucks requiring escorts, then it is conceivable that many MCTs will receive more trucks than they can possibly push, creating larger and larger backlogs.

The desire to reduce the number of forward operating bases in Iraq has prompted Army planners to consider closing Camp Cedar II and integrating its functions into nearby LSA Adder. Besides the advantages to be gained from eliminating redundant base support facilities and personnel, the move would streamline the transportation operations in the area. The move would involve collocating the area MCT (currently on LSA Adder), the highway regulating MCT (currently the Camp Cedar II MCT), the sustainment truck marshalling yard, the joint distribution center, and the fuel farm. The disadvantage is that moving to LSA Adder would require a painstaking transition and substantial construction there to avoid interrupting the flow of supplies from Kuwait to destinations throughout Iraq.

Although the 618th MCT is an area MCT by MTOE [modification table of organization and equipment], it has assumed different roles while serving as the Camp Cedar II MCT. The duties of highway regulation, ITV, sustainment convoy coordination, and supporting other units have replaced the standard area MCT duties of issuing transportation movement requests and committing transportation assets.

The Army is developing a new modular MCT that will be larger and better able to handle diverse missions. The operating tempo, the vast number of vehicles, and the flexibility needed at Camp Cedar II demand a more robust and adaptable team of transporters, making the new modular MCT a perfect fit for the mission at Camp Cedar II. Although working at airports, sea terminals, and area MCTs is viewed as the norm, there is a growing need in theater for the convoy support center mission, which the modular MCT will be ready to accomplish.

ALOG

CAPTAIN RANDALL W. NEWMAN IS THE COMMANDER OF THE 618TH MOVEMENT CONTROL TEAM, WHICH DEPLOYED WITH THE 49TH TRANSPORTATION BATTALION TO CAMP CEDAR II, IRAQ. HE IS A GRADUATE OF THE UNIVERSITY OF UTAH, THE TRANSPORTATION OFFICER BASIC COURSE, AND THE COMBINED LOGISTICS CAPTAINS CAREER COURSE.

FIRST LIEUTENANT PAUL A. KAHN IS ASSIGNED TO THE 618TH MOVEMENT CONTROL TEAM. HE HAS A BACHELOR'S DEGREE IN ANTHROPOLOGY FROM THE UNIVERSITY OF ARIZONA AND IS A GRADUATE OF THE TRANSPORTATION OFFICER BASIC COURSE.

FIRST LIEUTENANT RICHARD F. ROGERS III SERVED AS A BATTLE CAPTAIN FOR THE 618TH MOVEMENT CONTROL TEAM AT CAMP CEDAR II. HE HAS A B.S. DEGREE IN CIVIL ENGINEERING FROM CALIFORNIA POLYTECHNIC STATE UNIVERSITY AT SAN LUIS OBISPO AND IS A GRADUATE OF THE TRANSPORTATION OFFICER BASIC COURSE.

Why BCS3 “Doesn’t Work”

BY MAJOR THOMAS E. SACHARIASON

The Army has spent millions of dollars creating the Battle Command Sustainment Support System (BCS3) and fielding it to an Army at war. In my opinion, the return on investment has been low because of a limited understanding of what the system is, what it can do, and how it should be employed.

BCS3 is not a Standard Army Management Information System (STAMIS). Instead, it is a system that pulls information from our current STAMISs and from in-transit visibility servers. The STAMISs provide us current updates on supply, maintenance, and ammunition, and the in-transit visibility servers provide us with data from radio frequency (RF) interrogation devices and satellite transceivers on vehicles using systems like the Movement Tracking System (MTS). BCS3 takes those data and allows them to be shown graphically on digital maps.

BCS3 operators can view the supply stockage levels in warehouses and track the movement of supplies as they travel through the distribution systems via air, land, and sea. These capabilities provide a platform for a logistics common operating picture, which is the most important feature of the system. But, so far, it is also the least used part of the system. If it is so important, then why is it not being used? BCS3 must overcome certain hurdles in order to reach its potential. To maximize the use of BCS3, we must improve operator training, standardize operational views (OPVIEWS), and ensure that the Army’s communications infrastructure is conducive to BCS3 operations.

Operator Training

The improvements needed to operator training are not in terms of the program of instruction but in terms of who attends the training. For BCS3 to reach its potential, the right people need to understand how the system works and what it can provide. Staff officers and senior noncommissioned officers working in operations (S-3), logistics (S-4), and support operations positions should become proficient in using BCS3. They need to know how to research information, track convoys, and develop OPVIEWS that meet the commander’s needs. They also need to understand the basic system maintenance that must be performed daily to ensure BCS3 is operating correctly. Battle captains must have a firm understanding of the system so that they can manage the battle update brief and provide the commander with the right information.

Operational Views

The power of standardizing OPVIEWS is threefold: First, it provides a consistent picture of what the commander deems important and helps focus the efforts of the staff and subordinate commanders. Second, it allows geographically separated commanders to maintain situational awareness and view the same picture as their leaders. Finally, in situations where outlying commanders are not on the same communications network, it simplifies the process of keeping that same picture by eliminating the need to push large amounts of data through narrow communications pipelines.

OPVIEWS in BCS3 are graphic displays of tactical operations similar to earlier versions that were displayed using multiple layers of acetate on a paper map. BCS3 OPVIEWS are electronic “layers” of information on a digital map. The overlays can include current information on stockage in warehouses or on movements, such as near-real-time updates of the location of convoys (based on their MTS satellite feeds) and the current status of en route supplies (based on their most recent RF tag “ping” at an RF interrogator along the distribution network).

The best things about OPVIEWS are that they include whatever the commander wants to see and are limited only by the operator’s imagination. One commander may want to focus his OPVIEWS by using separate filters that show all classes of supply as they flow in to the area of operations. Another commander may want to focus more specifically on certain class IX (repair parts) items, such as aircraft on the ground parts, as they are tracked into the theater on strategic lift assets. The point is that OPVIEWS are determined by the commander, and the operators work to create a picture that best displays the intent of the commander in order to keep him effectively updated on the tactical situation.

By standardizing OPVIEWS, a common set of filters created at the higher headquarters can be distributed to lower echelons and used routinely in the subordinate commander’s tactical operations center. It is easier for the higher commander to command and control the tactical situation and to communicate his intent when all of the commanders are able to view the same picture. This lessens confusion and decreases the fog of war.

A good example of how the proper use of BCS3 can greatly assist dispersed commands is the distribution

of a route status OPVIEW. The route status of main supply routes and alternate supply routes are critical in Operation Iraqi Freedom (OIF) because enemy and weather activity can cause closures on the supply routes. BCS3 is capable of displaying the segments of routes in different colors—such as green, amber, red, and black—to signify the level of safety and security of the route. That OPVIEW can be maintained and updated at one level of command and shared with all the other levels for an instantaneous update of the tactical situation. The dispersed commands will probably still rely on their immediate battlespace owners for the most accurate and up-to-date tactical information, but the OPVIEW will be valuable, especially for the commands that push convoys longer distances, traverse multiple battlespace boundaries, and require more expansive intelligence and route status reports. The units that battle track their convoys can immediately contact their convoy commanders with updates on the routes ahead of them.

The OPVIEW can also provide a picture of all the RF interrogators in the area of operations. The filters are designed and focused to determine whether or not supplies are flowing correctly through the distribution system. For example, the distribution system and routing plan for class IX in OIF is set up to deliver parts to supply support activities using the fastest means available. During OIF 05–07, the 101st Sustainment Brigade was located at the Q West base complex in the northern part of Iraq. The 3d Corps Support Command decided that all Department of Defense activity address codes (DODAACs) that were supported by the 101st Sustainment Brigade would receive their class IX by air using the network of theater aircraft and standard flight routes. Movement by ground required a convoy to traverse a minimum of two convoy support centers and potentially endure delays in the Anaconda distribution center for 24 hours or more while waiting on the next convoy or flight going north. It made sense to transport the parts by air.

Therefore, a BCS3 filter was created to identify any RF tag burned with data for a DODAAC supported by the 101st Sustainment Brigade that “pinged” at the Kuwait border. If a class IX part with an RF tag was shipped by ground and showed up on the interrogator at the border crossing, it meant that the part had been misshipped; an RF tag with that DODAAC should have been moved from Camp Arifjan, Kuwait, to Ali Al Salem Airfield and then shipped by air to the northern hub. BCS3 allowed support operations personnel to identify the problem quickly and contact Camp Arifjan to fix the problem so that future supplies were properly shipped. This is just an example

of how BCS3 can support distribution management, but, more importantly, it demonstrates the system’s potential for future, more expeditionary missions.

Communications Infrastructure

Finally, in order for BCS3 to maintain the logistics common operating picture across a theater of operations, the communications infrastructure has to support the system. The Army has to decide if it is going to operate BCS3 on the Unclassified but Sensitive Internet Protocol Router Network (NIPRNet) or the Secret Internet Protocol Router Network (SIPRNet). Great strides have been made to get the system on the SIPRNet, but the slow progress has contributed to the lack of use of the system. If BCS3 is going to continue to operate on the NIPRNet, then the Army has to provide a large enough “pipeline” to make the system more effective. The NIPRNet is a less attractive option because the classified network is more of a necessity in the combat zone and, without a dedicated and sufficient amount of bandwidth, BCS3 is almost rendered useless because it takes too long to change OPVIEWS or the filters that construct them.

The entire theater needs to be on the same network. Kuwait and Iraq use different servers, preventing the easy transmission of data between the two countries. Even though we are living in the 21st century and enormous improvements have occurred in the field of information technology, it is still a challenge to email someone from Iraq to Kuwait, and it is often a challenge to communicate even within Iraq. So far in OIF, the communications network has kept BCS3 from reaching its full potential.

BCS3 is a good product, and, if it is properly employed, it can revolutionize how we command and control the logistics fight. Commanders must demand the use of the system, training must be offered at the appropriate level, OPVIEWS must be standardized, and the communications network must support the concept. Once these steps are taken, the return on the investment will be high and the ability of leaders to command and control logistics will be greatly improved. **ALOG**

MAJOR THOMAS E. SACHARIASON IS CURRENTLY ATTENDING THE INTERMEDIATE-LEVEL EDUCATION COURSE AT THE ARMY COMMAND AND GENERAL STAFF COLLEGE. HE HAS A BACHELOR’S DEGREE IN SOCIOLOGY AND PRE-LAW FROM METHODIST COLLEGE AND AN M.S. DEGREE IN MANAGEMENT FROM THE UNIVERSITY OF MARYLAND UNIVERSITY COLLEGE. HE IS A GRADUATE OF THE COMBINED LOGISTICS OFFICERS ADVANCED COURSE AND THE COMBINED ARMS AND SERVICES STAFF SCHOOL.

Distributing the Army's Medical Department Officers

BY COLONEL LARRY S. BOLTON, LIEUTENANT COLONEL R.G. DICKINSON, AND MAJOR VERNON WHEELER

To meet the needs of a transforming Army, the authors believe that the Army Medical Command's Officer Distribution Plan process must evolve to include human resources assets of the other services and the civilian workforce.

The Army is undergoing a dynamic process of transformation while it simultaneously supports the Global War on Terrorism. The military healthcare system (MHS) and the Army's component of that system, the Army Medical Command (MEDCOM), are not exempt from the changes associated with this massive transformation. Managing critical human resources processes while participating in both a global armed conflict and a major transformation is a daunting task. Corporate human resource strategy, including the management of scarce human resource assets, is a complex endeavor in the best of times. This article will discuss how MEDCOM manages one of its most vital human resource assets—its officer corps—during this challenging time.

Our purpose is to describe the MEDCOM Officer Distribution Plan (ODP) and its importance to MEDCOM's human resource strategy as both a decision-making tool and a predictive analysis tool. Our hope is to demystify what some have deemed a “smoke and mirrors” process and provide a glimpse of the future for both leaders and human resource managers. We will briefly discuss the history of the ODP and its development and maturation over the years, the current ODP process, and some future perspectives.

Managing the Army's Medical Officers

The Army's medical enterprise is a complex and highly diverse organization, consisting of 6 separate officer corps (career management branches) and more than 90 areas of concentration (AOCs). These 6 corps currently have more than 13,900 assigned officers. Managing the annual distribution of these medical professionals is both challenging and time-consuming, but it is also of vital importance.

The MEDCOM ODP is a synchronized and dynamic process that “commits” to the distribution of human resource overages and shortages approximately 15 to 18 months before they take effect. The annual MEDCOM ODP ensures that senior medical leaders have the opportunity to analyze and approve the distribution

of vital healthcare officers. The final approval authority for each fiscal year's ODP is the Surgeon General of the Army, who also is the Commanding General of MEDCOM.

Historical Evolution of MEDCOM's ODP

The Army's overall ODP process began in 1947 in an effort to equitably distribute the Regular Army officers remaining on active duty after the post-World War II drawdown. MEDCOM's ODP process began in the mid-1970s, when the end of the draft-deferred medical residency programs after the Vietnam War resulted in an acute shortage of physicians in the Army. By the late 1970s, the MEDCOM ODP process was similar to the Army Competitive Category ODP system. However, MEDCOM had little in the way of a corporate distribution strategy, little involvement by the most senior MEDCOM leaders, no system for validating personnel requirements, and no link between the distribution shortage and the need for increased funding to acquire personnel with the required capabilities from the civilian market. This system remained virtually unchanged through the 1980s and into the 1990s.

In the mid- to late-1990s, MEDCOM began formulating its ODP during an annual 3-day conference held in the national capital region. Attendees included career management officers from the Total Army Personnel Command (now called the Army Human Resources Command-Alexandria [AHRC-A]; AOC-specific consultants to the Surgeon General; regional medical command (RMC) chiefs of administration, clinical services, and nursing; and human resources subject-matter experts from the Army's Office of The Surgeon General (OTSG) and MEDCOM headquarters. The conference was strictly limited to the discussion of Medical Corps (physician) officer distribution. The other five corps of MEDCOM—Dental, Medical Service, Medical Specialist, Army Nurse, and Veterinary Corps—were rarely discussed and thus not truly considered in the greater scheme of officer distribution.

The ODP process was very simple. AHRC-A initially distributed MEDCOM officers by unit and specialty based on the authorized strength of each specialty and the available distributable inventory of officers in each specialty. Career managers at AHRC-A used the Personnel Manning Authorization Document (PMAD) as the authoritative space requirements document.

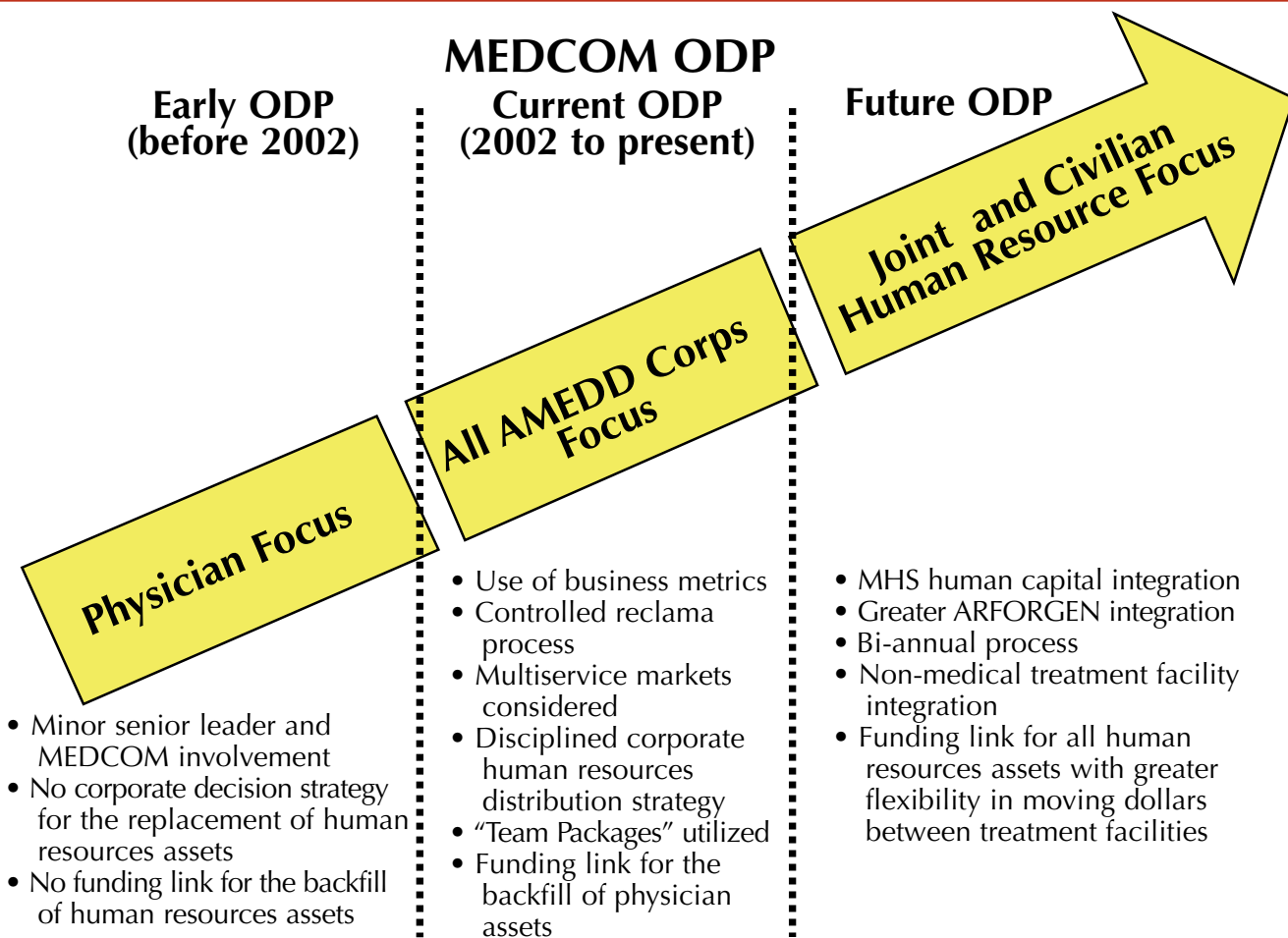
The PMAD is a human resources (Army G-1) tool that is derived from two separate operations (Army G-3) files—the Master Force (MFORCE) list and The Army Authorization Documents System (TAADS). The G-3 Force File, reflecting documented and programmed force structure positions for each unit in the Army, produces the MFORCE. TAADS is a Headquarters, Department of the Army (HQDA), automated system that contains all unit authorization documents, maintains quantitative and qualitative human resources and equipment data for individual units and the entire Army force structure, standardizes authorization documents for similar parent units, and interfaces with other HQDA automated systems. In creating the PMAD, personnel system staff officers at Army G-1 overlay the MFORCE and TAADS to

resolve differences. They then input the results into the Correctable Automated Unit Database (CAUDB). The Army G-1 staffers load senior Army leader decisions at the specialty level of detail into CAUDB. When combined in CAUDB, the output from the MFORCE and TAADS overlay and the senior leaders' decisions result in the PMAD.

The fundamental goal of the MEDCOM ODP has always been to provide support to the warfighter. Historically, units in the deployable force were allocated officers to their respective levels of authorization. Essentially, MEDCOM served as the force provider of medical officers to non-MEDCOM units. What actually happened was the distribution of shortages—MEDCOM determined which Army medical treatment facilities would have a deficit due to a lack of distributable inventory.

At the annual ODP conference, the AOC consultants and RMC representatives discussed which MEDCOM medical treatment facilities were best able to absorb a shortage of any given specialty. If contentious issues arose among the RMCs, the Deputy Surgeon General arbitrated and made a final recommendation to

The process for developing the MEDCOM Officer Distribution Plan (ODP).



Legend

AMEDD = Army Medical Department
 ARFORGEN = Army Force Generation model
 MEDCOM = Army Medical Command

MHS = Military healthcare system
 ODP = Officer Distribution Plan

the Surgeon General. In most cases, few shortages resulted from the assigned strength of the Army during that time. So the ODP conference was essentially an opportunity for the AOC consultants to share the state of their specialties and for senior medical leaders to discuss specific assignments for a select group of officers. Business metrics to guide decisionmaking and a controlled process for RMCs to submit formal disagreements with AHRC-A's proposed MEDCOM officer distribution were lacking. The disjointed nature and stovepiped approach left many senior leaders with the sense that the MEDCOM needed an ODP process that was more inclusive and synergistic.

Changes in 2002

Over time, senior MEDCOM leaders and medical treatment facility commanders expressed the desire to gain a more holistic view of the ODP process by considering possible sources of medical personnel that might be able to supplement MEDCOM's organic capabilities. Areas for consideration included the Army's ability to hire civilian physicians from other Federal agencies; the availability of civilian contract physicians in a particular area; the ability of the TRICARE network (the Department of Defense's version of a health maintenance organization) to absorb the Army's medical workload if the local Army medical treatment facility was unable to handle it; the availability of Air Force and Navy physicians assigned to nearby sister service medical treatment facilities; and the expanded capabilities created by cooperation among assigned physicians, physician extenders (such as physician assistants and nurse practitioners), and associated support staff (such as radiologists, laboratory technicians, pharmacists, and nurses).

Three significant improvements emerged to dramatically change the MEDCOM ODP process in 2001 and 2002: the introduction of business-related metrics, the creation of an automated ODP system, and the creation of multispecialty, multibranch "team packages." Not only was it apparent that an automated information technology solution was required, but ODP participants also realized that a more structured administrative process was needed to ensure an equitable distribution of MEDCOM officers.

The OTSG and MEDCOM human resources community quickly realized that an automated method was needed to capture data at a level sufficiently detailed to meet the requirements of the Army's senior medical leaders. The Medical Operational Data System (MODS), a mainframe computer-based information technology system developed in the 1980s to manage physician special pay contracts, was the system chosen for developing an ODP support module. The MODS was transformed from a simple database, in which

ODP and assignments data were stored in a retrievable form, to a web-based system that contains interactive decision-support tools specifically designed to assist in the ODP decision process.

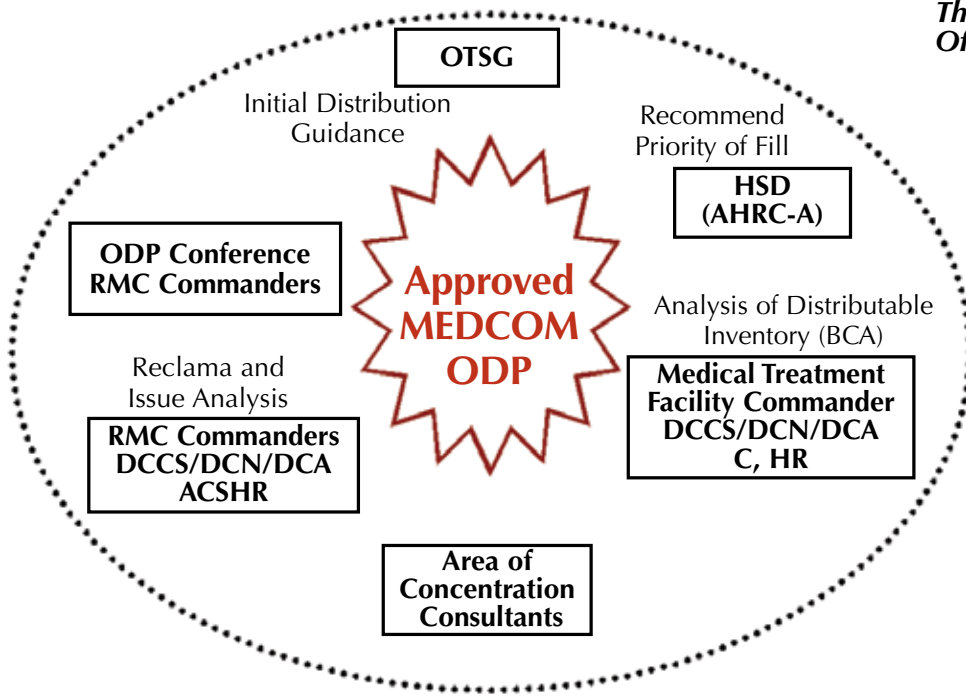
Unlike the process of the late 1990s, the 2002 ODP process began months before the ODP conference. In June 2002, the Decision Support Center, a data analysis cell within the OTSG staff, produced data on business variables to help measure the cost effectiveness and workload production at the physician level of detail at each Army medical treatment facility. These business variables included such metrics as population served, average number of available full-time-equivalent (FTE) personnel by work center, population per average available FTE, productivity measures, purchased care workload by specialty, purchased care amount paid by provider specialty, benchmark replacement cost (the mean annual civilian compensation cost by specialty for the medical treatment facility), and replacement availability.

The Decision Support Center divided the business variables into two categories: relative value units, which are associated with outpatient care, and relative weighted products, which are associated with inpatient care. These data became invaluable as benchmarks for comparing one medical treatment facility's medical productivity to another's. However, a noted constraint was the business variables' focus on physicians, to the exclusion of other medical career branches. Taking that constraint into consideration, the ODP conference participants nevertheless relied on the business variables as decision-support tools.

Working collaboratively and leveraging the MODS database, AHRC-A, OTSG, and MEDCOM developed an Internet-based view of the ODP process. The initial document, the ODP "strawman," displayed the previous year's ODP at the medical treatment facility- and specialty-level of detail for each AOC—not just for the Medical Corps but for all medical career branches. The strawman compared previous and proposed ODPs to authorizations. It aggregated the ODP at the RMC and MEDCOM levels. This tool allowed senior medical leaders to ascertain the overall MEDCOM personnel picture in a single, simple snapshot view. Arguably, the highest value derived from the strawman was the common operating picture it afforded to all ODP participants.

In previous ODP conferences, participants noted that decisions influencing physician distribution also affected other medical specialties, such as nurses, and other clinical specialties, such as pharmacists and laboratory technicians. So the Deputy Surgeon General directed OTSG and MEDCOM, in conjunction with the AOC consultants, to produce certain clinical staffing teams. An example of a clinical staffing team

Current MEDCOM ODP Cycle



The process for developing the MEDCOM Officer Distribution Plan (ODP).

Legend

- AHRC-A = Army Human Resources Command-Alexandria
- BCA = Business case analysis
- C, HR = Chief of human resources
- DCA = Deputy chief for administration
- DCCS = Deputy chief for clinical services
- DCN = Deputy chief for nursing
- HSD = Health services directorate
- MEDCOM = Army Medical Command
- OTSG = Office of The Surgeon General
- RMC = Regional medical command

is the orthopedic team, which consists of orthopedic surgeons and physiatrists [specialists in physical medicine] from the Medical Corps; physical therapists, occupational therapists, and orthopedic physician’s assistants from the Medical Specialist Corps; and podiatrists from the Medical Service Corps.

Other teams are anesthesia, aviation medicine, critical care, pathology and laboratory, obstetrics-gynecology, optometry and ophthalmology, emergency medicine, preventive medicine, primary care, and psychiatry and mental health. These teams allowed senior leaders to substitute for a shortage specialty. For example, in the anesthesia team, if there was a deficit of anesthesiologists (Medical Corps), senior leaders may have decided to substitute a certified registered nurse anesthetist (Nurse Corps). Often, AHRC-A career managers made these substitution recommendations to the AOC consultants as they produced the ODP strawman.

Two months before the annual ODP conference (normally held in early December), career managers at AHRC-A entered data into the ODP strawman. These data were aggregated and then displayed in MODS for medical treatment facility clinical leaders and human resources managers to analyze and make business-related decisions. Each medical treatment facility had approximately 2 weeks to conduct its business case analysis and determine its next course of action. One option was for the medical treatment facility to accept the strawman as written and then expect distribution at the proposed level of fill during the next fiscal year’s assignment cycle. The other

option was for the medical treatment facility to submit a “reclama,” or a formal disagreement with the proposed distribution. In order to submit a reclama, the medical treatment facility was required to submit a business case analysis to justify their disagreement.

The RMC human resources chiefs aggregated the reclusas at the RMC level and, after review by the RMC commanders, forwarded them to MEDCOM for the ODP conference. In the last few weeks leading up to the ODP conference, career managers at AHRC-A again scrutinized the available distributable inventory to see if they could support a medical treatment facility’s reclama. AHRC-A might be able to redistribute inventory by moving an allocation from one medical treatment facility to another based on the latter facility’s better business case. If this occurred, the losing facility could argue against its loss at the ODP conference. At the conference, each AOC consultant presented the status of his specialty, including any problems (such as shortage of distributable inventory or recruiting and retention issues).

Based on the business variable data, the business case analyses presented by the medical treatment facilities in support of their reclusas, and the input from the AOC consultants, the RMC commanding generals adjudicated the reclusas. The group determined which facilities would gain or lose distribution allocations. If the group was unable to reach agreement, the Deputy Surgeon General would make the final decision. Approximately 1 month after the conference, the Surgeon General approved the ODP and AHRC-A released the MODS-based results to the field.

Impact of War and Transformation

This process sufficed until the Army became decisively engaged in the Global War on Terrorism and Army Transformation. These two signal events changed the face of medical human resources management and required MEDCOM to again rethink its approach to officer distribution. Rapidly changing events have caused AHRC-A to quickly move officers from nondeploying units and assign them to the deploying force. Changes in Army structure resulting from transformation also have caused human resources authorizations to shift from one unit to another, often very quickly. This has made managing the MEDCOM ODP particularly challenging.

In 2006, the MEDCOM ODP used a more comprehensive set of business variables, including variables for inpatient nursing and nonphysician providers. The ODP conferees also considered the impact of base realignment and closure recommendations on medical treatment facilities and the installations they supported. For example, if an installation was slated to receive a 5,000-Soldier brigade combat team, the ODP conferees were required to consider the associated rise in health-care requirements—and not only for the Soldiers themselves but also for their associated family members.

The 2006 ODP conference also saw the addition of representatives from the Navy and Air Force Surgeon General offices. The decision to invite attendees from the sister services had two rationales. The first was to ascertain the availability of clinical support in multimarket areas. For example, Wilford Hall Air Force Medical Center and Brooke Army Medical Center are both located in San Antonio, Texas. If the Army medical center experienced a decrease in distributable inventory, perhaps the Air Force facility would be able to pick up the clinical workload. Having a member from the other services' surgeon general offices in attendance made this coordination infinitely easier and timelier. The second rationale was to help the other services to better understand the Army's process, with an eye on future joint possibilities.

One aspect of the MEDCOM ODP revolves around fiscal resourcing for manpower support. Currently, the ODP process allows the MEDCOM Resource Management Directorate to increase budgets ("plus ups") when the projected distribution of physicians does not meet the previous year's distribution or the projected distribution must be changed to reduce the number of physicians at a specific medical treatment facility. The basic premise is that the MEDCOM enterprise must support the local medical treatment facility's healthcare mission, either by providing a uniformed healthcare provider or by providing the financial resources to contract for that specialty or purchase the service from the local economy. One

shortcoming in current practice is the focus on budget plus-ups only for physician specialties. Several senior MEDCOM leaders have recognized that the enterprise must address this concern by including all medical career branches in budget plus-up considerations.

The 2006 ODP conference demonstrated that attendees made less use of business variable data than in previous years. However, this revelation was not bad news. It reflected the fact that, even though the data were more readily available because of improvements in technology, senior leaders made decisions based on clinical needs and requirements in support of the Global War on Terrorism rather than relying strictly on business variable metrics. When queried, the leaders confirmed that medical treatment facility commanders and senior staff were making better use of business variables at the local level before deciding to submit reclaims to their higher headquarters. This development fulfills the intent behind introducing the use of business variables.

The Future of the MEDCOM ODP

Having seen past initiatives become reality, the human resources community intends to improve the ODP process and product each year. In the short term, we will make routine improvements in the overall human capital distribution process covering data quality, agency coordination, business variable development, the reclama process, inclusion of the other services, and inclusion of civilian FTEs into the ODP process. This list is not all-inclusive, but it demonstrates the complexity of the concept.

We believe the ODP process will evolve into more of a joint process that we will dub the "joint medical human capital strategy" (J-MHCS), which will comprehensively incorporate the personnel of our sister services and our civilian workforce. This strategy will likely be necessary both from an inventory and a financial standpoint. The J-MHCS could potentially serve as the MHS staffing tool for many, if not all, Department of Defense military and civilian medical specialties. For example, as we staff medical treatment facilities within multiservice markets, a more collaborative exchange among the services on how we distribute our medical shortages would reduce duplication of resources and allow for duplicated resources to be placed somewhere else. In terms of applying the J-MHCS to civilian distribution, we have in recent years, through the current ODP process, accounted for civilian physician and nurse FTEs, but only after the fact. We intend to incorporate them up front.

As good as the current ODP process has become, it is still much too rigid and cumbersome. As an annual process, it is not as flexible as it could be. Even after the staff has finalized the ODP and the Surgeon

General has approved the distribution of personnel, we have seen that requests to change the ODP begin immediately (albeit at a minimal number). We deal with the requested distribution changes on a case-by-case basis. However, the process has no structure.

So what changes might help to make the future MEDCOM ODP process more flexible? First, we likely will need to adjust our timeline so that we conduct a “mid-year” review of the future 15- to 18-month distribution contract the leaders approved the previous December. During the midyear review, the senior MEDCOM leaders will have an opportunity to adjust both current J–MHCS needs and the just-approved J–MHCS (against which AHRC–A will begin making assignments 15 to 18 months in the future). The tools for those personnel working on the J–MHCS will include a current manning document (PMAD or the Updated Authorization Document), updated information on the specialty inventory, projected losses, input on civilian specialties, and input from the other services.

Second, the future J–MHCS process must have a better means of tying funding to distributed human capital. In other words, our MHS enterprise leaders must ensure that adequate funding is fairly distributed to each organization based on documented productivity and other metrics. Similarly, all funding allocation and reallocation processes and procedures associated with the J–MHCS must be flexible and responsive.

Third, we clearly must have a mature J–MHCS process that incorporates our civilian workforce and our sister services’ military and civilian workforces into the future distribution equation. The sharing and systematic accounting of these human capital assets must be implemented. As an initial step, MEDCOM will need to develop an enterprise civilian human capital strategy that enables us to recruit and place our civilian personnel where we truly need them. In other words, we must better tie the civilian workforce to our military workforce needs and shortfalls. We also will need to develop a “mobile” civilian workforce that can be integrated and “plugged” into our facilities to supplement our military workforce.

With forethought and creativity, we are confident that we can design a flexible and synergistic joint medical human capital strategy that will effectively and efficiently distribute our vital medical human capital assets. The times ahead will be fraught with many challenges for senior medical leaders and medical human resources managers, but we believe the Army medical enterprise will rise to the occasion.

The annual MEDCOM ODP distribution plan is a dynamic, synergistic process that has matured over the years. It helps to provide predictive analysis and indepth synchronization to our human resource

management system and serves as a foundation for decisions that will affect military healthcare into future years. The process itself results in the assignment of officers at the tactical levels of Army medicine (field medical units and local medical treatment facilities). However, the impact of the process is strategic by its very nature. We believe that some form of the MEDCOM ODP process will migrate into a joint human resources management process that will be better linked to our sister services’ support to Army organizations. Similarly, we see ODP as including the Army’s civilian healthcare staff in a more relevant and more predictable way.

The Army has made many changes in the ODP process, and we realize that further improvements are both possible and needed. The very utilitarian nature of the MEDCOM ODP process allows it to change as requirements change. Our endeavor is to make the process as adaptive and flexible as possible while maintaining its usefulness.

It is an exciting and challenging time for human resources management within MEDCOM and the Army Medical Department. The ODP is a great tool that must be understood and then executed by all of our leaders. We must be willing to push forward with new ideas, policies, and practices to meet the daunting personnel challenges that lie ahead. **ALOG**

COLONEL LARRY S. BOLTON IS THE DIRECTOR OF HUMAN RESOURCES IN THE OFFICE OF THE SURGEON GENERAL AND THE ASSISTANT CHIEF OF STAFF FOR HUMAN RESOURCES OF THE ARMY MEDICAL COMMAND. HE HOLDS A B.S. DEGREE IN HEALTH AND SAFETY STUDIES FROM CALIFORNIA STATE UNIVERSITY AT SACRAMENTO, AN M.A. DEGREE IN HEALTH SERVICES MANAGEMENT FROM WEBSTER UNIVERSITY, AND AN M.S. DEGREE IN NATIONAL RESOURCE STRATEGY FROM OF THE INDUSTRIAL COLLEGE OF THE ARMED FORCES.

LIEUTENANT COLONEL R.G. DICKINSON IS THE CHIEF OF THE FORCE MANAGEMENT DIVISION IN THE OFFICE OF THE SURGEON GENERAL. HE IS A GRADUATE OF THE COMMAND AND GENERAL STAFF OFFICERS COURSE. HE HOLDS A DOCTORAL DEGREE IN HUMAN RESOURCES AND A MASTER’S DEGREE IN EDUCATION ADMINISTRATION.

MAJOR VERNON WHEELER IS THE ASSISTANT EXECUTIVE OFFICER FOR THE SURGEON GENERAL IN THE OFFICE OF THE SURGEON GENERAL. HE HAS A B.A. DEGREE IN SOCIOLOGY FROM THE UNIVERSITY OF KANSAS AND AN M.A. DEGREE IN PUBLIC ADMINISTRATION FROM THE UNIVERSITY OF OKLAHOMA. HE IS A GRADUATE OF THE ARMY MEDICAL DEPARTMENT OFFICER BASIC AND ADVANCED COURSES AND THE COMBINED ARMS AND SERVICES STAFF SCHOOL. MAJOR WHEELER SERVED AS THE MEDCOM ODP PROJECT OFFICER FOR 2006.

Doing More With Less: Special Forces Logistics in Afghanistan

BY FIRST LIEUTENANT CHRISTOPHER G. MANGANARO

Operations in an unconventional warfare environment drive the need for a unique logistics platform. One example of a unique logistics approach is the employment of a forward logistics element (FLE) in a Special Forces group support battalion (GSB) in Afghanistan. A FLE is attached to a Special Forces battalion task force and directly supports the battalion's operational detachment alpha (ODA). The FLE provides the 12-member ODA with the ability to conduct both kinetic (combat) and non-kinetic (civil affairs) operations under austere conditions in the most remote of locations. Without adequate sustainment, the ODA cannot maintain constant pressure on the enemy.

Organization

FLEs are strategically located throughout Afghanistan so that they can be task-organized and embedded within the supported unit. This dispersion of logistics forces allows for a decentralized approach to supporting counterinsurgency operations. A FLE consists of Soldiers from the GSB, which provides direct logistics support to a Special Forces battalion task force. The FLE includes riggers, mechanics, cooks, electronic maintenance technicians, fuel and water specialists, vehicle operators, and transportation movement coordinators. Some of these skill sets are not organic to the headquarters support company of a Special Forces battalion and, therefore, add more logistics capability to the unit's design at the tactical level.

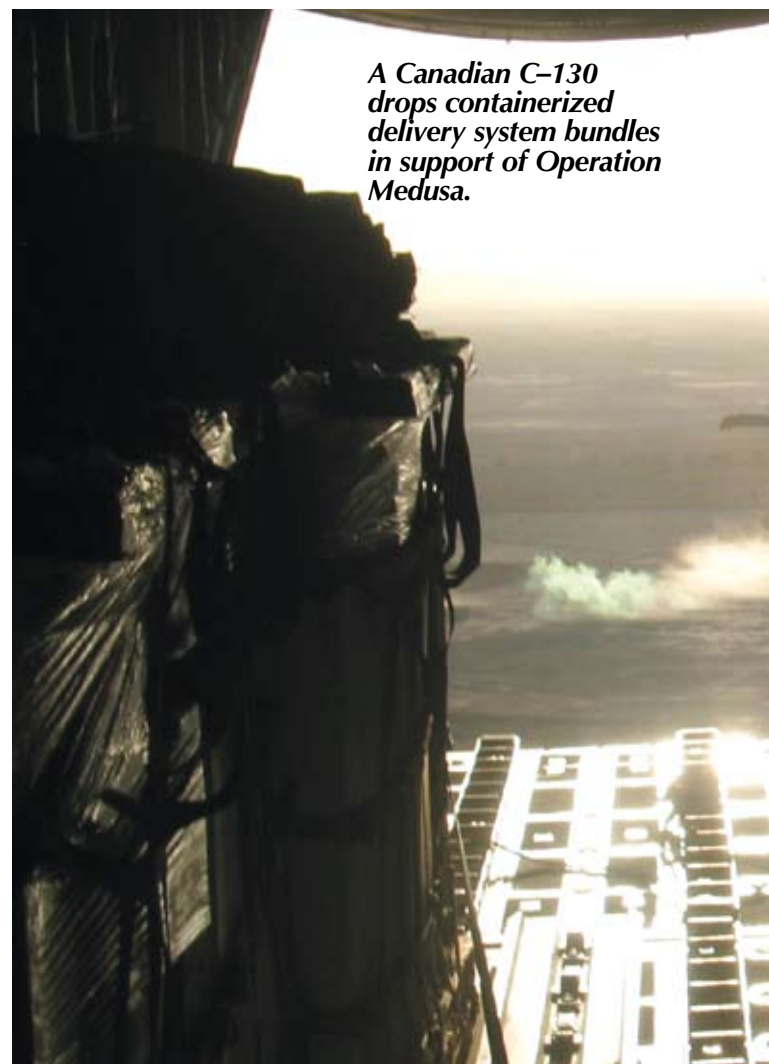
The FLE has a limited number of personnel. The average size of a Special Forces battalion task force FLE in Afghanistan ranges from 15 to 20 Soldiers. The total number of battalion task force support personnel exceeds 50 when a FLE is task-organized into a service detachment. However, even with over 50 support personnel in this combined effort, a ratio of 1 support Soldier to every 3 combat arms personnel still exists. The difficulties created by this ratio multiply when the force array of the Special Forces battalion task force spans a geographic area equal to that of an infantry division area of responsibility. The challenge is to task-organize and employ the FLE in key areas to have a significant impact on logistics operations in support of ODAs.

The FLE is commanded and controlled by a first lieutenant and a noncommissioned officer who are located with the Special Forces battalion task force

headquarters. The remaining Soldiers are further task-organized into logistics support teams (LSTs) and assigned specific areas of responsibility within Afghanistan. An LST works directly with an operational detachment bravo (ODB)—the headquarters element of a Special Forces company—and provides critical logistics support to ODAs engaged in counterinsurgency operations. Merging the LST into the task organization of the ODB allows the Special Forces company commander to focus on operations, while the LST provides logistics support to the ODAs in the field. Using these resources at the lowest level extends the operational reach of the Special Forces battalion task force and enables them to put continuous pressure on the enemy without operational pauses caused by insufficient force sustainment.

Relationship With the GSB

Although a FLE is attached to a specific battalion, it is important for the FLE to maintain its relationship



A Canadian C-130 drops containerized delivery system bundles in support of Operation Medusa.

A Canadian light armored vehicle is loaded onto a U.S. palletized load system heavy expanded mobility tactical truck to be transported during a joint combat logistics patrol.

with the GSB so that it can employ available support assets based on mission requirements. In essence, the FLE serves as the eyes and ears of the GSB. With its forward presence, the FLE possesses the ability to project and forecast needs at the tactical level.

This attribute became evident during Operation Medusa, the North Atlantic Treaty Organization (NATO) and International Security Assistance Force (ISAF) operation that was conducted in August and September of 2006. Members of the Task Force 31 FLE, stationed at Kandahar Airfield, deployed forward to support one ODB and four ODAs engaged in direct ground combat with enemy forces. Soldiers from the GSB at Bagram Air Base flew to Kandahar to provide personnel augmentation and offer additional logistics support to Task Force 31. The GSB assistance was necessary because Task Force 31 quickly became the main effort in the largest NATO combat operation in history.

The greatest challenge that the FLE had to overcome during Operation Medusa was supporting both conventional and special operations forces from the same firebase. The FLE responded to this challenge



by establishing a one-stop shop for all classes of supply. A supported unit could drive into the firebase and refit its equipment within 6 hours. During the refit, small teams of multifunctional logisticians worked on several different pieces of equipment simultaneously. When one team was complete, it would quickly transition and assist another team. The ability to remain agile and multifunctional was key to the success of the FLE during the operation.

Flexibility

The FLE must remain flexible and be able to push forward on a moment's notice to establish a logistics foothold. Although most firebases in Afghanistan were established over 3 years ago, new firebases are occasionally established to counter the insurgents' ability to adapt to friendly force organizational structures and methods of operation. The ability to establish and sustain these new firebases is an important task of the FLE.

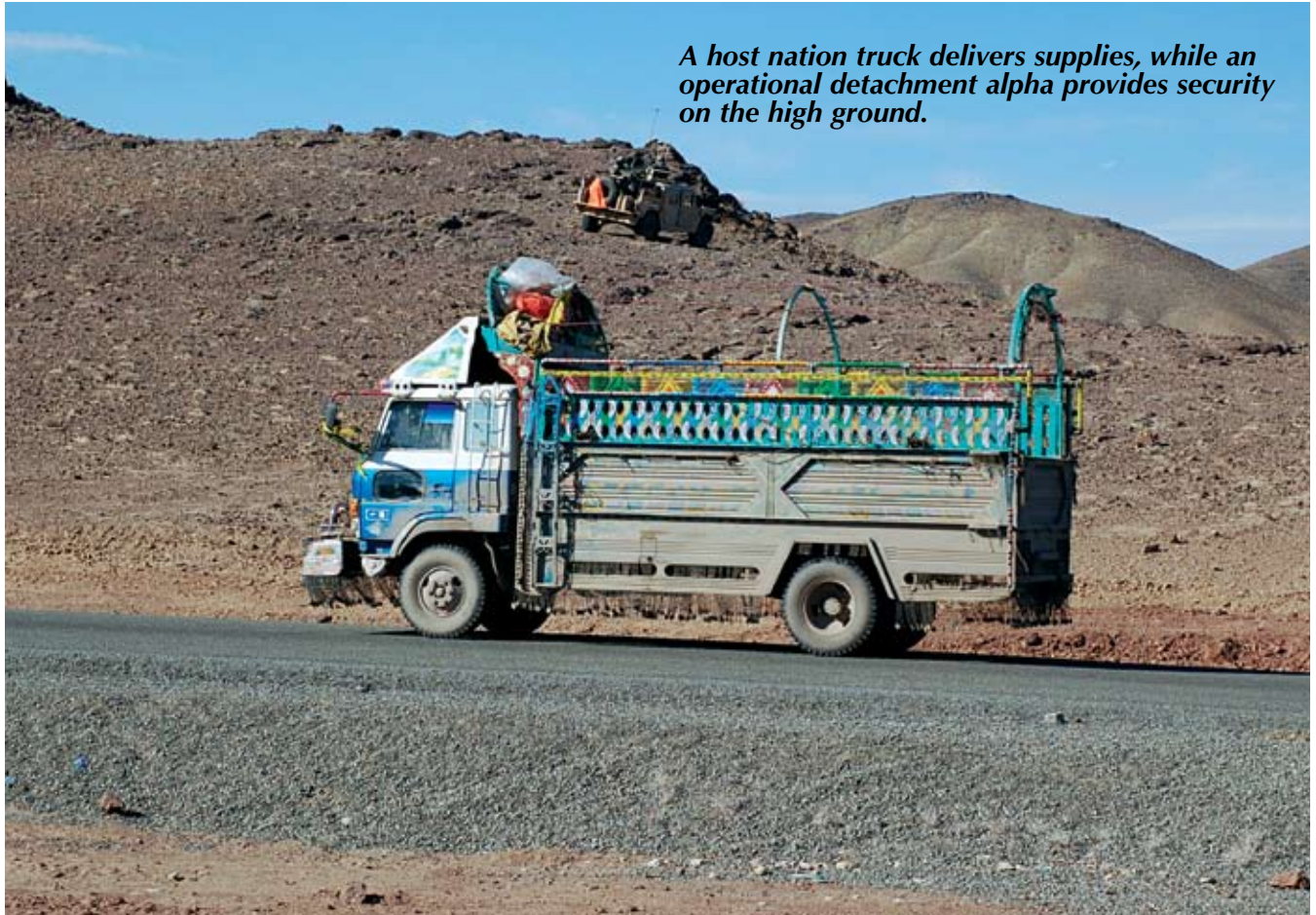
During Operation Al-Hasn in November 2006, the use of the Task Force 33 FLE proved to be vital to the success of the 3d Battalion, 3d Special Forces Group (Airborne). Using split-based operations, the FLE was able to infuse skill sets into the service detachment that are not normally found in the detachment's task organization. FLE 33 employed Soldiers who possessed skill sets suited for rough-terrain driving and heavy equipment operation.

Once the security element and supplies were transported by ground, the engineers could begin constructing the new firebase. Subsequent sustainment operations called for establishing forward refueling points along main supply routes and the use of logistics convoys. With no true road network in the Tagab Valley and limited fuel distribution capability in the region, the FLE resorted to refuel-on-the-move, using support vehicles to assist the ODAs.

Distribution

One of the methods of distribution that FLEs use to sustain ODAs is fixed-wing aerial delivery. Using





A host nation truck delivers supplies, while an operational detachment alpha provides security on the high ground.

container delivery systems (CDSs), FLEs provide aerial resupply to several firebases whose ground lines of communication are restricted. CDS operations have been successful because of the relationship between the Special Forces battalion task force and the coalition partners of NATO and ISAF. CDS missions are often accomplished using coalition fixed-wing assets when U.S. assets are unavailable. Few airfields in Afghanistan can support aircraft larger than a C-130, limiting the number of high-value items that U.S. Army units can transport by air. So, having working relationships with NATO and ISAF partners is vital to the fixed-wing resupply of ODAs in the field.

ODAs also receive supplies in the field by rotary-wing aircraft. Often, rotary-wing support is used to supply classes V (ammunition), VII (major end items) and VIII (medical materiel) that cannot be moved by ground transportation because of route security concerns and poor ground lines of communication. The availability of rotary-wing assets in southern Afghanistan has significantly decreased over the past 2 years. This fact places even more demand on the FLEs to move supplies forward to the LSTs using other resources.

Classes I (subsistence), III (petroleum, oils, and lubricants), and IV (construction and barrier materials) are often moved by ground transportation. This reduces the reliance on rotary- and fixed-wing assets and increases the available lift capacity for high-value items, such as classes V, VII and VIII.

Collaboration

FLEs often support ODAs by collaborating with non-U.S. personnel. One such resource is host nation workers. By assisting the coalition forces, host nation personnel have a sense of ownership in bringing security and stability to their country. Because of the limited number of FLE personnel, host nation workers also serve a vital role in support operations. In many instances, the ratio of host nation workers to Soldiers is 30 to 1.

Host nation trucks are assets that are used extensively in southern and western Afghanistan. Security problems in southern Afghanistan have forced many of the host nation trucking companies to refuse to travel to certain locations without security escorts. Enemy forces target host nation trucks and pilfer the goods that they carry. Unlike conventional FLEs, the Special Forces FLEs lack dedicated force protection

assets for convoy security, so ODAs have to assume a force protection role for convoys instead of conducting counterinsurgency operations. This problem can be mitigated by establishing checkpoints between firebases to increase route security and enable host nation trucks to deliver supplies without interference from the enemy.

FLEs also support ODAs during non-kinetic operations and integrate host nation assets into the plans. The procurement and distribution of humanitarian assistance items can have an effect on mission accomplishment that is as significant as the support of kinetic operations. During a non-kinetic event, such as a medical civil action project, the FLE can prepare supplies and strategic loads to be pushed forward to villages using host nation trucks or Afghan National Army (ANA) vehicles. Integrating the ANA into the support concept of a tactical operation provides the ANA with the experience needed to develop their own force sustainment capabilities. Although the ANA does not possess a FLE in its task organization, it does operate in close proximity to the ODAs. Therefore, members of the ANA can personally experience how the FLE resupplies the ODA while executing both kinetic and non-kinetic operations.

FLEs also conduct logistics patrols with NATO and ISAF partners in support of coalition operations. During Operation Baaz Tsuka in December 2006, members of FLE 31 from the 1st Battalion, 3d Special Forces Group (Airborne), successfully completed

over 15 joint resupply missions in support of 1 ODB, 3 ODAs, a Canadian artillery battery, and a Canadian light-armored vehicle (LAV) company. FLE 31 was able to “piggyback” on a Canadian combat logistics patrol’s convoy security assets and deliver essential supplies for both kinetic and non-kinetic operations. Once an adequate amount of supplies was positioned at the firebase, the LAV company, in conjunction with the ODAs, established security and stability in what was an enemy safe haven.

Training

To support the unconventional warfare environment in Afghanistan, support personnel must be well-trained and multifunctional. In addition to their primary duties, support Soldiers must be capable of providing additional firepower to ODAs during combat reconnaissance and presence patrols. Embedding support Soldiers within the ODA is a combat multiplier that increases operational reach and expands organic capabilities. To make support Soldiers capable of operating under these conditions, the training should focus on producing competent, disciplined, and multifunctional support assets.

The GSB’s predeployment training is called the Special Forces Basic Combat Course-Support (SFBCS-S). The course is 10 days long and is designed to enhance the basic warrior skills needed to survive combat in an unconventional warfare environment. Personnel assigned to a Special Forces FLE operate in high-risk

environments. Therefore, extra emphasis is placed on advanced marksmanship techniques, convoy operations, and medical training. SFBCS-S is taught by the same Special Forces Soldiers that members of the FLE will be working alongside once deployed. This teaching technique is used so that the ODA’s tactics, techniques, and procedures will be passed on to the Soldiers who will provide their direct support.

Advanced marksmanship training can also be accomplished by sending Soldiers to civilian

Soldiers practice weapons familiarization to remain proficient on all tactical weapons.





Mechanics perform maintenance on all-terrain vehicles used by an operational detachment alpha during Operation Baaz Tsuka.

FLE the opportunity to train with ODBs and ODAs that it would be working with in Afghanistan.

Unlike the majority of personnel assigned to conventional FLEs, the Soldiers assigned to a Special Forces FLE need to be trained in a variety of military occupational specialties. The challenge to leaders is to make certain that all skill sets are fully trained. Emphasis must be placed on training all specialties associated with the FLE to ensure continuity among all members of the team. Sometimes

referred to as the “Super 92” concept, all 92-series Soldiers should train to ensure that they can perform each others’ jobs. The goal is to have Soldiers who are competent, proficient, and capable of completing tasks outside their military occupational specialties and able to adjust and be flexible in learning new tasks. Multifunctionality is a concept that must be accepted as a means of combating the lack of support personnel and overcoming mission constraints when trying to support a Special Forces battalion task force.

The ability to support ODAs conducting counterinsurgency operations in Afghanistan is a key task of the Special Forces FLE. With limited personnel and pre-existing resource constraints, overcoming these obstacles makes the FLE a critical capability. The FLE must be agile in its capabilities and rapid in its response to the needs of an ODA or ODB. By decentralizing logistics operations and employing small teams of multifunctional logisticians placed at strategic locations, Special Forces operational detachments can extend their operational reach to defeat the enemy in support of the counterinsurgency battlefield of Afghanistan.

ALOG

marksmanship courses, such as those conducted by Blackwater USA, Gryphon Group Security Solutions, and the Mid-South Institute. These schools have programs specifically designed for Special Forces support personnel. An additional benefit is the “train the trainer” concept, which means that, after attending any of these schools, a Soldier can return to the unit and assist in training his fellow support personnel. With no organic security element, the FLE must be creative in projecting force sustainment to Special Forces Soldiers, be able to fight alongside them as the mission dictates, and contribute to kinetic and non-kinetic effects across the battlefield.

Another key training event is driver’s training on both heavy- and medium-weight tactical wheeled vehicles. The training should be conducted in rugged, mountainous terrain and under varied weather conditions. If FLE Soldiers are properly trained and licensed on an assortment of vehicles before deployment, they can safely and effectively operate and maneuver many vehicles. This versatility and added expertise allows for critical supplies and ammunition to be delivered safely and without incident in the treacherous driving conditions found in Afghanistan.

For most support Soldiers, SFBCC-S is their first opportunity to work with Special Forces Soldiers and gain valuable knowledge before they deploy. However, embedding support personnel with ODAs during the premission training (PMT) is an excellent training opportunity. Because of the frequency of deployments, it is vital for PMT to be as realistic as possible. During the PMT of FLE 33 with the 3d Battalion, 3d Special Forces Group (Airborne), in Yakima, Washington, the FLE trained with the Special Forces battalion task force 2 months before deploying. The PMT gave the

FIRST LIEUTENANT CHRISTOPHER G. MANGANARO IS THE SUSTAINMENT PLATOON LEADER FOR THE GROUP SUPPORT BATTALION OF THE 3D SPECIAL FORCES GROUP (AIRBORNE). DURING OPERATION ENDURING FREEDOM, HE SERVED AS THE FORWARD LOGISTICS ELEMENT OFFICER-IN-CHARGE FOR THE 1ST BATTALION OF THE 3D SPECIAL FORCES GROUP (AIRBORNE). HE IS A DISTINGUISHED MILITARY GRADUATE OF HOFSTRA UNIVERSITY WITH A B.B.A DEGREE IN BUSINESS MANAGEMENT. HE IS A GRADUATE OF THE ORDNANCE OFFICER BASIC COURSE.

What Deploying Units Need to Know About Contracting

BY MAJOR HOUSTON E. BAKER

The Army needs to improve its integration of tactical unit planning and management of contracted support. Contracting is just now emerging as a focused subject in our current logistics officer and noncommissioned officer (NCO) professional military education courses, but operations in the contemporary operating environment demand a significant knowledge of this subject. This article will focus on the tactical-level unit's role in obtaining and managing theater support contracts through servicing regional contracting centers (RCCs) in Operations Iraqi Freedom and Enduring Freedom. It will not address contracting support through the Logistics Civil Augmentation Program or deployable systems support contracting personnel.

What happens if, while deployed, your unit needs support that is not available through organic means? What is the process to get this support? What is your unit's role as the "requiring activity" in this process? The requiring activity is the organization that identifies what it needs and when it needs it. The role of the contracting activity is to procure urgently needed supplies, services, and minor construction projects that are not available through the Army supply chain or through host nation military support channels.

The first step is for the requiring activity to identify specific support requirements and determine if the supplies or services it needs are available through organic supply channels. If the unit determines that the supplies or services are not available through military means, then the requiring activity must inform the supporting contracting activity of the need as precisely and clearly

as possible. For a supply requirement, the requiring activity must provide a specific item description and estimated cost, but not a specific make or model. For a services contract, the requiring activity will need to develop a performance work statement (PWS).

The Performance Work Statement

The PWS is essentially a detailed set of written standards for everything you want the contractor to perform or produce. A PWS needs to be very specific because contracting officers and contractors are not mind readers. If a requirement is not put into writing, you cannot expect it to get done. Although developing the PWS is the requiring activity's responsibility, your supporting RCC may be able to provide an example or assist you in developing your PWS.

A good PWS includes descriptions such as size, dimensions, colors, materials, and unique characteristics. For example, suppose you need signs to notify local national personnel of a vehicle checkpoint. You, the requiring activity, know you want an 8-inch by 10-inch sign stating in both English and Arabic, "Caution: Checkpoint Ahead. Be Prepared to Stop!" But that description is insufficient for a PWS. It does not provide instructions concerning the color of the sign and the letters, the size of letters (remembering that local nationals use the metric system), the arrangement of the words (are the two languages supposed to be side-by-side or one below the other?), or the material of the sign (wood, metal, or plastic). You also need to include examples of any graphics that should be displayed on the sign, including details of the graphics' sizes and colors. While a contract can be executed with a less detailed description, chances are very good that the end product will not meet your expectations. In this case, the best approach would be to develop a graphic example of the sign along with a written description.

An officer stands next to a sign for the Camp Taji Contracting Center. The sign had to be written in two languages, so the color red was chosen for English and black was chosen for Arabic. Details such as these should be documented in a performance work statement.



Requiring Activity in Contracting Process

After the requiring activity has accurately described the requirement, it is responsible for helping to identify possible sources of supply. The contracting administrative NCO at the RCC can provide assistance in this matter. Next, the independent government cost estimate (IGCE) must be determined either by estimating the cost of the item using previous purchases for the same item or by obtaining the price of the item from catalogs or local vendors.

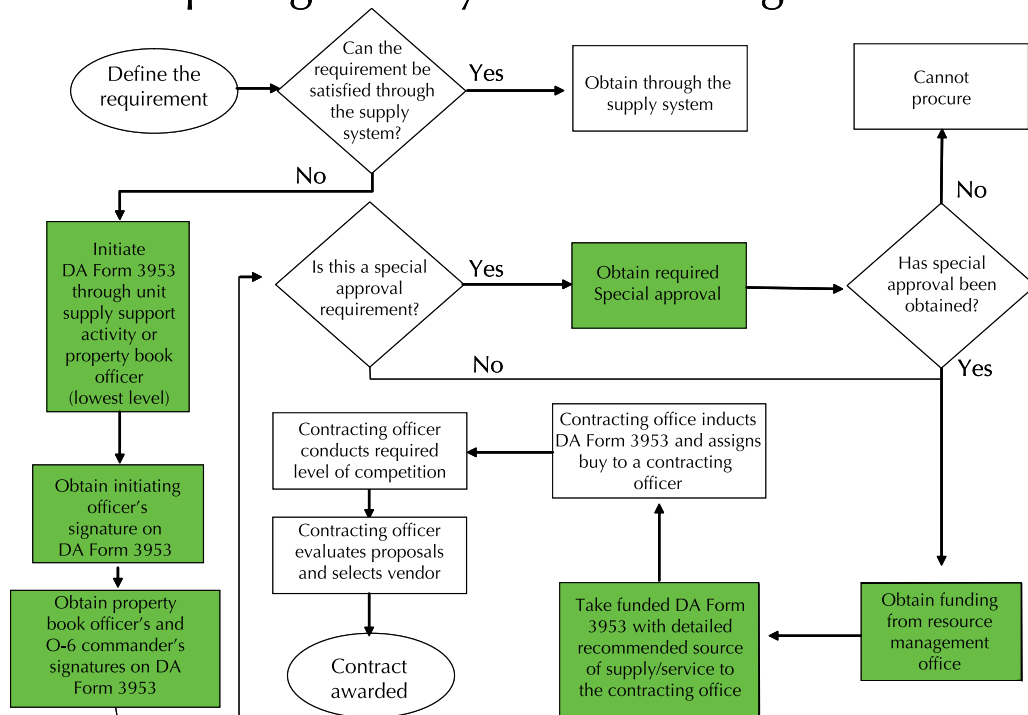
Funding for the Contract

The next step is to complete Department of the Army (DA) Form 3953, Purchase Requisition and Commitment. This form is the funding source from which a contracting officer will award a contract. The requiring activity must ensure that the form has been approved and signed by the initiating officer, the property book officer, the resource manager, and the brigade commander. This form will also need to contain the description, quantity, and approximate cost of the items required in the contract, and, if the contract is for a service, a PWS must be attached. Finally, the requiring activity's resource manager will type in the account code indicating that funds are available to procure the item or service; without authorized funding, the contracting officer cannot award a contract.

The chart above is a quick reference to help you obtain contracted support. The segments shaded in green are responsibilities specific to the requiring activity.

It is important to understand that contracting officers receive their authority to commit the U.S. Government to an acquisition through a unique and narrow chain of command. This chain flows from the Secretary of Defense, to the Secretary of the Army, to the head of the contracting activity, to the contracting support brigade commander or principle assistant responsible for contracting, and, finally, to the contracting officer. Remember, only a contracting officer (with his warrant authority) can award, modify, or terminate a contract. This authority does not extend to your commander or any of his subordinates.

It should be noted that, in current operations, certain items (identified by the joint force commander) require Joint Acquisition Review Board (JARB) approval before you can proceed with your acquisition. Items



requiring JARB approval generally include procurements costing over \$200,000, force protection items, and other special interest items that must be prioritized for procurement. If an item has to go before the JARB, be prepared to justify your acquisition request.

Unit Representatives

As soon as your advance party hits the ground, it is essential to designate someone in your unit to become familiar with any existing local contracting support capabilities and procedures. This individual must be prepared to coordinate the formal handover of existing contract management responsibilities from the redeploying unit. He should know when your recurring service contracts will be ending because it generally takes 30 to 60 days to get funding approved. If the unit waits until the contract is about to expire to request funding, it will probably lose that service until funding is available.

For every service contract awarded, your unit must appoint a contracting officer's representative (COR). A COR is a Soldier or a DA civilian from the requiring activity who is nominated by the unit and appointed in writing by the contracting officer. CORs receive training through formal COR classes; your supporting contracting officer can provide information on obtaining this training.

The COR functions as the "eyes and ears" of the contracting officer by monitoring and managing the contract, but he has no authority to modify the contract or give instructions to the contractor. Being the COR is usually an additional duty, but this duty

may require significant time and attention to detail to ensure that the contractor is performing according to the awarded contract. In current operations, the COR also may be required to ensure the safety of the contractor. For example, a COR may be required to arrange for an armed escort for local national employees whose area of performance is on a U.S. military base.

Finally, you should plan to have a field ordering officer (FOO). In current operations, FOOs serve in lieu of a unit's government purchase card holder, since the local infrastructure does not support the use of credit cards. A FOO provides your unit with a quick method of purchasing nonrecurring services and limited supplies, such as printer cartridges and office supplies. FOOs have limited authority to obligate the Government; they have the same purchasing constraints as government purchase card holders, and the amount they are authorized to obligate is generally less than or equal to \$2,500. Keep in mind, however, that all FOOs need to be officially nominated by their commands and appointed in writing by their contracting officers. FOO training can be accomplished before you deploy or can be set up through the RCC.

Remember, the more complex the requirement, the longer it will take to award the contract. In some cases, you may also need to get additional technical support for complex service contracts. For example, construction contracts may require engineer staff support to develop the PWS or to assist the COR in quality assurance.

Contracting at Camp Taji

The following example of a minor construction requirement in Iraq represents a fairly complex theater support contracting effort.

During a rotation to Operation Iraqi Freedom in 2005 and 2006, the 1st Aviation Brigade, 4th Infantry Division, had a requirement to renovate a building at Camp Taji. To get this project approved by the JARB and the Joint Facilities Utilization Board (JFUB), the brigade was required by the established joint force commander's policy to develop a PWS and an IGCE. Since it had no engineering expertise on staff, the brigade requested assistance from the designated forward operating base (FOB) engineering office, the Air Force Red Horse Engineering Detachment, to assist in developing these documents.

The unit then submitted the IGCE, an approved DA Form 3953, and a letter of justification to the JARB and JFUB. Once approved by the boards, the packet was sent to the Joint Contracting Command-Iraq/Afghanistan, which sent the packet to the RCC located at Camp Taji. A contracting officer from the RCC then prepared the solicitation, compared bids, awarded the contract to a local vendor, and issued a proceed notice to start work. Once the contract was awarded, the local vendor had 30

days to complete all work, not including holy days and any delays caused by the Iraqi government.

Since this was a service contract, the RCC required the unit to provide a COR to ensure the work was completed according to the PWS. Because the vendor and his employees were local nationals, the unit also had to provide an armed escort for these employees for the entire period of performance. The Camp Taji security policy required 1 armed unit guard for every 10 local national personnel, and this particular contract resulted in 12 to 18 employees working on the building each day. The armed escort had to meet the contracted personnel at the FOB's gate to process them onto the base, escort them to the work site, guard them through the workday, and then escort them off the FOB by 1700 each day. Once the work was complete and accepted by the RCC, the unit was responsible to escort the vendor to the finance office to receive his payment. The renovation took approximately 70 days, from the time that the requirement was identified to the time that the work was completed.

Contracting is a key means of obtaining required support during a deployment. Because of this reality, it is advisable to designate an officer or senior NCO from your support operations office or S-4 office to be the contracting support coordinator. This individual will be your lead action officer responsible for coordinating all contracted support efforts, managing current contracts, monitoring CORs and FOOs, and establishing a solid working relationship with your servicing RCC. Remember that contracted support is not a fire and forget means of support; significant planning and time management have to be dedicated to ensure that adequate support is received. The recently revised Army Training Support Package 151-M-001, Contractors Accompanying the Force, contains additional information concerning contracting and contractor management support and can be viewed online at www.train.army.mil.

ALOG

MAJOR HOUSTON E. BAKER IS A CONTRACTING DOCTRINE DEVELOPER IN THE ACQUISITION, LOGISTICS, AND TECHNOLOGY-FUTURES OFFICE AT THE ARMY COMBINED ARMS SUPPORT COMMAND AT FORT LEE, VIRGINIA. HE DEPLOYED TO OPERATION IRAQI FREEDOM WITH THE 4TH INFANTRY DIVISION AND SERVED AS A CONTINGENCY CONTRACTING OFFICER FOR THE JOINT CONTRACTING COMMAND-IRAQ/AFGHANISTAN. HE HAS A B.S. DEGREE IN EDUCATION FROM AUBURN UNIVERSITY AND AN M.S. DEGREE IN MATERIEL ACQUISITION FROM FLORIDA INSTITUTE OF TECHNOLOGY. HE IS A GRADUATE OF THE INFANTRY OFFICER BASIC COURSE, THE COMBINED LOGISTICS OFFICERS ADVANCED COURSE, THE ACQUISITION MANAGER COURSE, AND THE ARMY COMMAND AND GENERAL STAFF OFFICER COURSE.

Improving Class VIII Management at Brigade Level

BY CAPTAIN EDWIN H. RODRIGUEZ

To support units medically, a logistician relies on his ability to assess the situation and rapidly adapt to accomplish the mission.

The success of supporting the ongoing medical mission is influenced by both an understanding of medical logistics and a personal desire to help define its role. With increased demand and, often, insufficient personnel and equipment, our ingenuity and capabilities are repeatedly tested. The future of medical logistics depends on the partnerships and collaboration that can be delivered only by cross-leveling existing resources in order to increase the capability to integrate logistics solutions in austere scenarios. Establishing parameters by which units become self-sufficient is a major challenge for logisticians during predeployment planning. The role of the medical logistician is changing significantly because of the complexity of today's battlefield. In this article, I will address actions a brigade medical supply officer can make to improve medical logistics.

Considerations

Studying lessons learned, planning, and coordinating serve as crucial tools for forecasting unit requirements. When forecasting requirements for medical operations, you must consider the mission, the location, the medical threat, and the medical assets available in the area of operations. Determining multiple courses of action and methods of execution will ensure accessibility of supplies and the frequency of their delivery. Coordination must include all levels of command. You should establish standards and enforce their implementation to guarantee that tasks are met. The medical materiel management section under the division surgeon's office revises a wide-range of reference materials when preparing for a potential deployment. Documents, like old standing operating procedures, information papers, and after-action reports, will assist in the planning process.

Networking

Network! Network! Network! Establish a division or post medical logistics council to discuss medical logistics issues unique to your location and mission.

This will facilitate the cross-leveling of information, lessons learned, and experiences among your peers and senior logisticians. Use your medical materiel management officer at the division surgeon's office to endorse and head this council. Be sure to include the medical logistics staff from your installation medical supply activity (IMSA); they will provide a different insight on what is going on within the Army Medical Department (AMEDD). While deployed, try to continue this endeavor.

As a leader, it is your responsibility to mentor your subordinates. This will motivate the troops and increase productivity that, in turn, will ensure the success of your organization.

Identifying Unit Needs

Establishing rigorous readiness inspections improves the unit's posture and identifies last-minute discrepancies. As a medical logistician, you must conduct a primary assessment to identify unit standings through a complete layout of the medical equipment sets. Use updated authorized stockage lists or component listings to assist in the inventory process. Compile a shortage annex once discrepancies are recognized. Conduct semi-annual authorized stockage list reviews with your clinicians. Provide guidelines for the units to follow while conducting those inspections, and set a suspense date for completing fills of sets, kits, and outfits. Present the outcomes of the survey to the unit's chain of command, and offer recommendations on how to improve the unit's operation.

Provide the 6th Medical Logistics Management Center (MLMC) and your IMSA with the brigade's top critical items lists. These items can be identified based on the number of demands accumulated during a designated timeframe. The "MEDSUP" module on the Theater Army Medical Materiel Information System (TAMMIS) can create a "Critical Items Report." Providing this information to either supply activity will ensure availability and accessibility in short turn-around times. You also can identify those items

available in theater by using the mission essential equipment list or request for information format through the U.S. Army Medical Materiel Agency (USAMMA) Emergency Operations Center (EOC) or the Office of The Surgeon General EOC.

Establishing rigorous readiness inspections improves the unit's posture and identifies last-minute discrepancies.

Prime vendors play a significant role in the way we conduct business in today's Army. Schedule an appointment through the IMSA's chief of logistics or chief of supply to meet with the prime vendor representative for your area. Creating good communication with your vendors, suppliers, and customers will directly affect your success.

Contingency Stocks and Standardization

A unit's reaction time increases when contingency stocks are kept for urgent situations. Contingency stocks can be configured into sets for a specific brigade combat team (BCT) medical support activity, such as an infantry battalion aid station (BAS), a special troops battalion BAS, or a brigade support medical company. These sets are organized mainly by the potency and date of the items. The brigade surgeon, in collaboration with the division's primary healthcare providers, determines the composition of these sets. The unit authorization list, found on the USAMMA website or in the unit data repository, can serve as a guide for determining set composition. These sets are managed and

maintained by the brigade medical supply office (BMSO) and will be pushed to the BCT after it receives deployment orders.

Compile a critical and chronic medication list. This will guarantee accessibility to hard-to-come-by medications, especially when you are forward deployed. Plan, configure, and deploy a 3-day supply of sick call sets and trauma #2 sets with each battalion surgeon to ensure that your clinicians have immediate access to medications once they arrive in theater and are waiting for their medical equipment sets to arrive. Implementing these simple measures will increase medical support capabilities and Soldiers' survivability.

Fund Forecasting and Procurement

Coordinate through the chain of command to ensure that unit requirements are legitimately recognized for the allocation of funds to procure stock replenishments. The brigade surgeon and the comptroller play a major role in this process. The BMSO is responsible for processing regular requests, tracking orders, and issuing stocks to customer units.

With the assistance of your brigade S-4, battalion surgeons, physician's assistants, and medical platoon leaders, determine the top 10 projects for special requirements. The brigade surgeon's office is responsible for compiling a brigade requirements list and processing the purchase request through contracting.

Use historical data to determine the next fiscal year's funding requirements. Establish a means of tracking requirements and expenditures, provide visibility to your chain of command for all class VIII expenditures, and institute situational awareness reports on medical supply issues.

6th Medical Logistics Management Center

The 6th Medical Logistics Management Center (MLMC) is a multicomponent unit that provides centralized information management of class VIII (medical materiel), medical equipment maintenance, and blood to deployed forces.

The MLMC was established on 13 October 2000 to replace the deactivated 6th Theater Medical Materiel Management Center. The MLMC's forward teams provide total asset visibility for medical materiel in an operational theater and en route to the theater. The MLMC base unit links theater class VIII commodity requirements with distribution systems to get medical supplies and equipment into the theater.

The MLMC also integrates and coordinates strategic medical logistics actions between the theater and the

service agencies responsible for medical logistics: the Army Medical Materiel Agency, the Air Force Medical Logistics Office, the Naval Medical Logistics Command, and the Defense Logistics Agency's Defense Supply Center Philadelphia, Pennsylvania.

The MLMC's responsibilities include reviewing and analyzing demands and computing theater medical commodity requirements; evaluating the workload, capabilities and assets of supported medical logistics battalions; and directing cross-leveling of workload or resources to achieve required capabilities and maximum efficiency. The MLMC provides mapping for class VIII commodity and distribution pipelines and furnishes medical materiel information management data and reports to key organizations.

New Equipment and Potential Fielding

The USAMMA website provides information on future equipment upgrades, new equipment fieldings, and unit qualification procedures. Unit deployment packages are available for echelons-above-division units, including forward surgical teams and air ambulance companies. These packages include only the potency and dated items authorized for their corresponding medical equipment sets. Units should formally request required equipment through USAMMA. When items are issued, coordinate with the property book office to update hand receipts. Then, coordinate through USAMMA or the equipment manufacturer for operator-level training.

Your staff's proficiency is only as good as their understanding of the operating systems that support their mission.

Participate in medical symposiums endorsed by USAMMA and AMEDD. They provide great sources of information, permit direct interaction with vendors, and allow you to learn about new technologies and medical supplies. Invite vendors and manufacturers to come to your home station. Coordinate with exhibitors to allow you to test their products during training events to ensure their effectiveness under austere conditions. Provide feedback on your findings to Defense Supply Center Philadelphia for potential Army-wide implementation.

Establishing an Account

Once your unit receives deployment orders, contact the property book office or your brigade S-4 and request a derivative or deployable Department of Defense activity address code and an account processing code. This funding site will ensure that you can order in the theater of operations. Contact the international merchant purchase authorization card (IMPAC) section at your installation contracting office and make sure that your account is up to date. You should also make sure that your type address code is accurate to guarantee correct delivery of supplies to your forward location.

Training

Training is a key element in the success of your mission. The military occupational specialties 68J (medical logistics specialist) and 68A (biomedical specialist) are some of the most highly skilled personnel in the Army. Training is essential to ensuring your Soldiers are technically qualified. Coordinate with your chain of command to allow your section to

conduct at least 4 hours of low-density training once a month. Forecast for additional training funds for off-site training. You should also establish a memorandum of agreement with the combat support hospital, establishing an on-the-job training program for your 68A Soldiers. This effort will expose your 68A Soldiers to all the pieces of medical equipment available in the Army inventory.

Your staff's proficiency is only as good as their understanding of the operating systems that support their mission. Thus, your Soldiers should be acquainted with TAMMIS, the TAMMIS Customer-Assisted Module, and the Defense Combat Assistance Module. The USAMMA Materiel Acquisition Division has learning modules and training materials available to help meet this training need.

Assistance Visits

Conduct assistance visits to the medical activities in the brigade to share procedural changes and catch last-minute needs. The BMSO will process these requirements immediately. You should also provide tactics, techniques, and procedures for handling push packages, line requisitions, and blood requests once engaged in the battle. Continue to set the standard for focused medical logistics. Medical units need to stand ready for all new challenges. Create an inspection sheet that incorporates all of your unit requirements, and establish a rating system to classify medical readiness status and to ensure that medical supply procedures are followed. Provide the results of your inspections to the unit's commander to keep him aware of the situation.

Modern warfare is extraordinarily diverse and full of theoretically possible variations. Experiences from others can have a positive impact on the mission. To stay abreast of new ideas and procedures, use sources that are objective and informative, such as the AMEDD Lessons Learned webpage, the General Dennis J. Reimer Training and Doctrine Digital Library, and *Army Logistician*. Identify any guidance that can be adapted to current operations. The bottom line is to learn from other's mistakes and benefit from other's knowledge.

ALOG

CAPTAIN EDWIN H. RODRIGUEZ IS THE CHIEF OF LOGISTICS PLANS AND READINESS FOR THE OFFICE OF THE DEPUTY CHIEF OF STAFF FOR LOGISTICS, ARMY MEDICAL RESEARCH AND MATERIEL COMMAND, AT FORT DETRICK, MARYLAND. HE HOLDS A BACHELOR'S DEGREE IN BIOLOGY FROM INTER AMERICAN UNIVERSITY OF PUERTO RICO AND A MASTER'S DEGREE IN HEALTH SERVICE MANAGEMENT FROM WEBSTER UNIVERSITY. HE IS A GRADUATE OF THE MEDICAL LOGISTICS MANAGEMENT INTERNSHIP PROGRAM AND A MEMBER OF THE ASSOCIATION FOR HEALTHCARE RESOURCE AND MATERIALS MANAGEMENT.

Army and Marine Joint Ammunition Operations

BY FIRST LIEUTENANT GLEN R. DOWLING

The Army and Marine Corps established a joint ammunition supply point in Iraq, overcoming the differences between the Army and Marine Corps class V operations.

The recent transformation of the military's combat service support structure has fostered new working relationships among the military services. This was demonstrated by the need for a more fluid Army class V (ammunition) support system in Iraq's Anbar province, where Army class V support was not available in the area of operations. Units needing class V support had to travel hundreds of miles from Al Asad to Taqqadum to obtain ammunition, putting more Soldiers in harm's way. Recently, the 1st Marine Logistics Group and the Army's 593d Sustainment Brigade agreed to establish an Army class V activity within the Marine ammunition supply point (ASP) at Al Asad. The agreement has provided two important benefits: It has reduced the number of required convoys, and it has provided quality class V support to Army units.

The largest challenge in this integration was in breaking down historical barriers between the Army and the Marine Corps. This challenge was initially overcome by the hospitable attitude of the 1st Marine Logistics Group's chain of command. Giving up a piece of their operation seemed to be a welcome change.

Combined Marine Corps and Army Operations

The 1st Marine Logistics Group's only request was that the Army Soldiers comply with their standing operating procedures (SOPs). This created the additional challenge of combining the Marine and Army SOPs. Surprisingly, the only differences were in nomenclature. For instance, a Marine logistics support group has an operations chief, a storage chief, an issues and segregations chief, and a records chief. An Army ammunition supply activity has an officer in charge (OIC) and a noncommissioned officer in charge (NCOIC) to execute the duties of the operations and storage chiefs and a Standard Army Ammunition System Modernization (SAAS-MOD) operator in place of the records chief.

Soldiers also had to adapt to Marine Corps safety standards. According to the memorandum of agreement, Soldiers must wear steel toe boots, coveralls, and a modular integrated communications helmet (MICH) while working in the ASP.

Soldiers and Marines would be integrated on work details, guard duty, and site maintenance activities. The Soldiers also would assist the Marines with the receipt, warehousing, and materials-handling issues of their supplies.

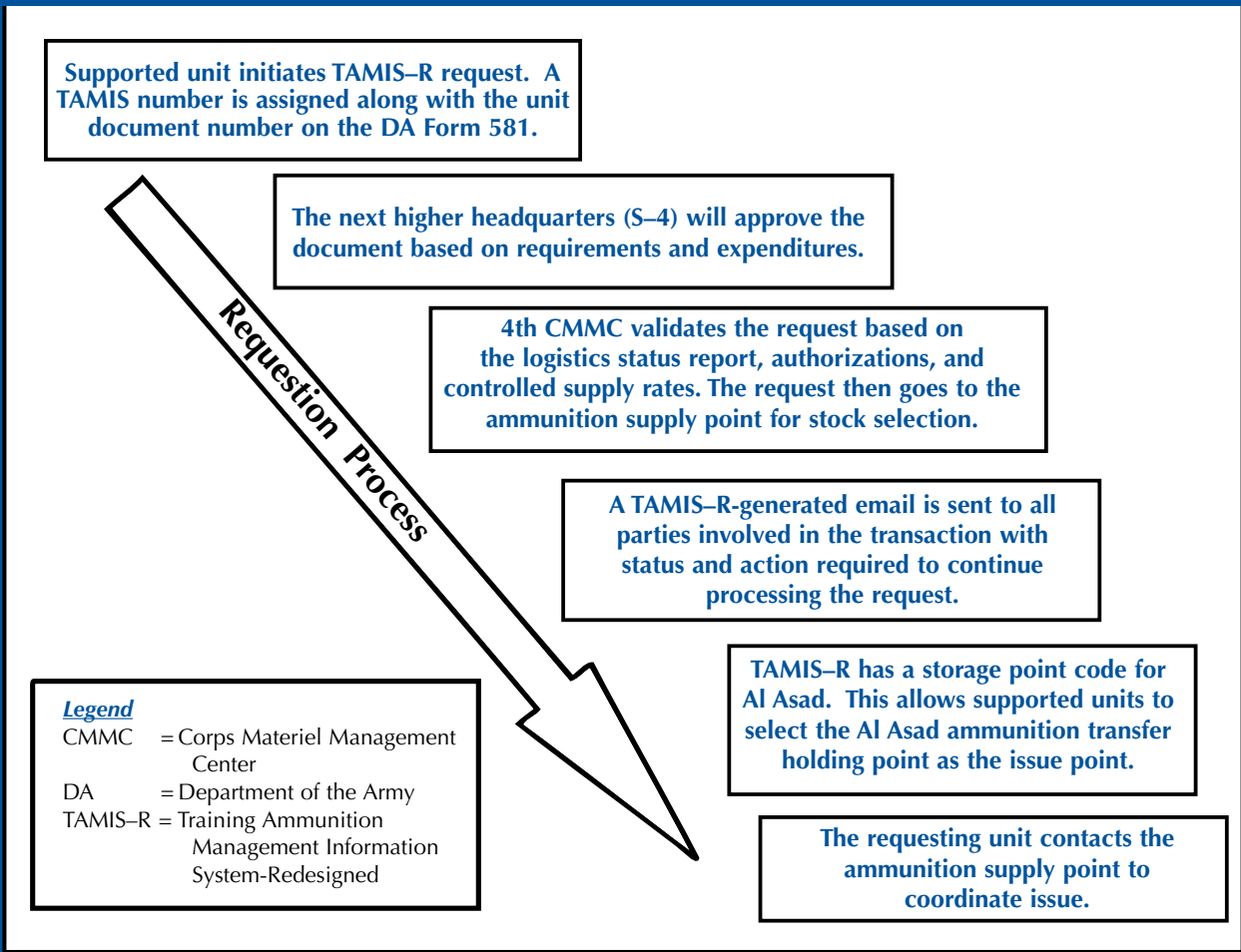
Establishing Army Class V Operations

The 593d Sustainment Brigade's class V activity consisted of only a small detachment of five Soldiers from the 63d Ordnance Company, a senior noncommissioned officer from the 4th Corps Materiel Management Center (CMMC), and an OIC from the 24th Quartermaster Company. The team initiated the operation by requesting and activating its Department of Defense Activity Address Code (DODAAC). It then established the SAAS-MOD network connection, using a combat service support very small aperture terminal. The team also organized the movement of 38 Government-owned containers to the ammunition supply activity for class V modular storage.

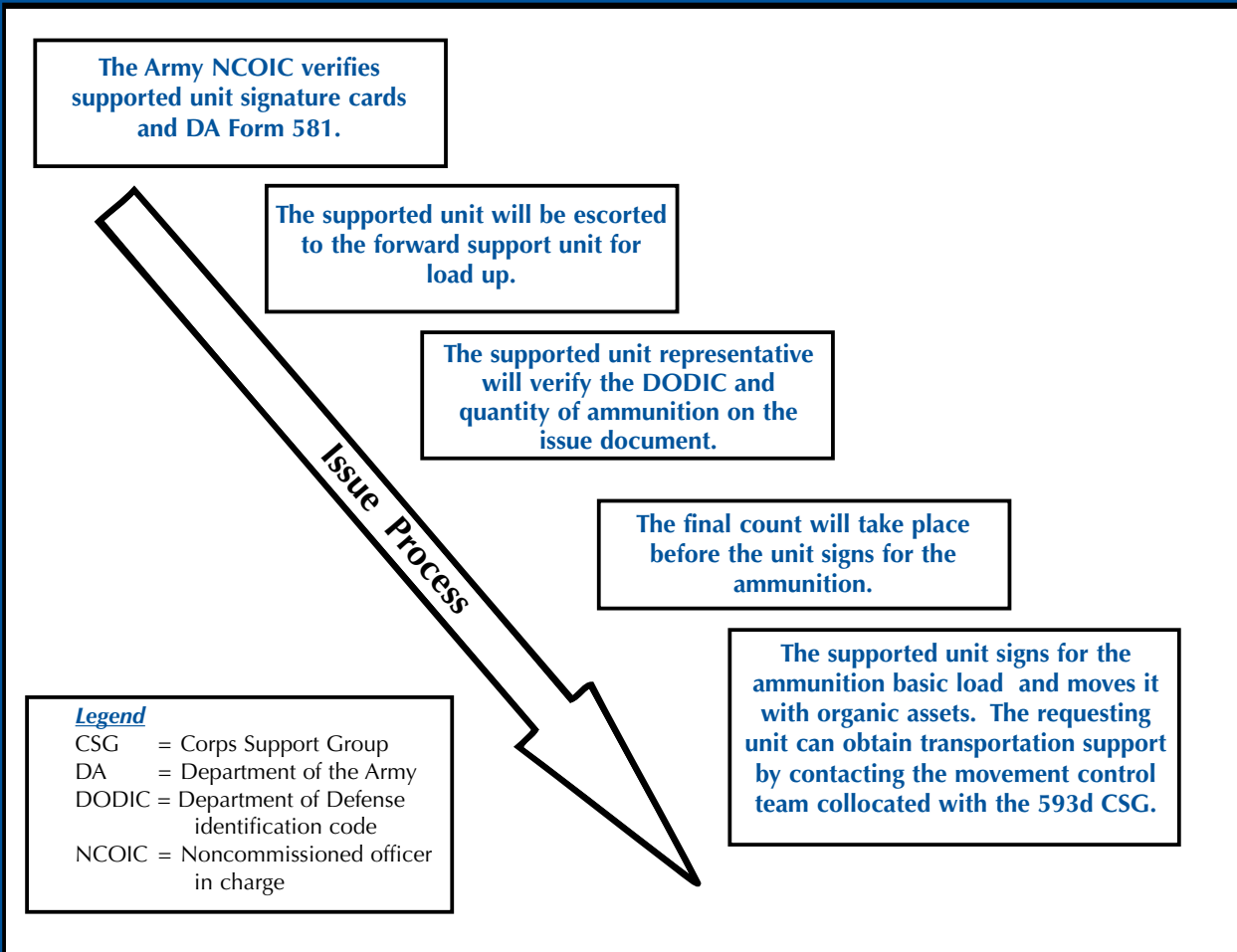
The Army established ammunition supply activity storage facilities at the Marine ASP consisting of 4 cells that hold 63,000 pounds of net explosive weight (NEW) per cell and 1 cell that holds 214,105 pounds of NEW, for a total of 466,105 pounds NEW. A final challenge was to account for the frustrated Army ammunition that had been accumulating over the past months.

Requisition and Issue Procedures

The Al Asad ammunition supply activity supports Task Force 1-36, Task Force 1-133, the 630th Combat Sustainment Support Battalion (CSSB), and many companies within our area of operations. We streamlined the ammunition supply activity requisition process. The new procedures are follows—



The requisition and issue processes for the Army/Marine ammunition point combine Army and Marine Corps procedures.



- The supported unit initiates a Training Ammunition Management Information System-Redesigned (TAMIS-R) request.

- A TAMIS-R number is assigned along with the unit document number on a Department of the Army (DA) Form 581, Request for Issue and Turn-in of Ammunition.

- The 4th CMMC validates the request, based on the logistics status report, authorizations, and controlled supply rates.

- The request then is sent to the ASP for stock selection.

- TAMIS-R sends an email to all parties involved in the transaction, telling the status and action required to continue processing the request.

With a TAMIS-R code for Al Asad available, supported units can select the Al Asad ammunition supply activity as the issue point. The requesting unit then contacts the ASP to coordinate issue.

Class V shipments arrive by both air and ground transportation. If a class V shipment arrives by air, the arrival/departure airfield control group personnel load the ammunition on pre-positioned trailers and notify both the 630th CSSB and the ASP. During the hours of nautical twilight (darkness), the ammunition should be moved to the ASP holding area. Once at the ASP, the Army NCOIC inventories the ammunition and ensures that it is posted to the SAAS-MOD accountable record and sent to the Marine OIC. If a class V shipment arrives by convoy, it is staged in the holding area during nautical twilight and inventoried by the Army NCOIC, who ensures that it is posted to the SAAS-MOD accountable record and sent to the Marine OIC.

Once the ammunition is received and inventoried, the ammunition is properly labeled and stored in its respective container. The Marine Corps' requisition process differs from the Army's in that the Marine unit puts the request through the S-4 ammunition chief, who submits the request to the Marine logistics group G-4. The G-4 then approves or denies the request. If approved, the G-4 sends the request to the ASP by email.

The Army procedures for class V issue are as follows—

- The Army NCOIC verifies supported unit signature cards and DA Forms 581.

- The supported unit is then escorted to the issue pad for load up.

- The supported unit representative verifies the Department of Defense Identification Code (DODIC) and quantity of ammunition on the issue document.

- A count is conducted before the unit signs for the ammunition.

- The supported unit signs for the issue and moves it with organic assets.

- The requesting unit can obtain transportation support by contacting the movement control team, which is collocated with the sustainment brigade.

In the Marine issue process—

- The records department receives the request and completes Department of Defense Form (DD) 1348-1A, Issue Release/Receipt Document, for the requested ammunition.

- The documents are sent to storage, where the requested items are pulled.

- The ammunition is counted twice and matched to the DD 1348s, and a copy of the documentation is sent to the issue section.

- The issue section picks up all ammunition and takes it to the issue lot to separate using military standard transportation and issue procedures. Once in the issue section, ammunition is either staged for pickup or prepared for convoy.

- The unit picking up the ammunition also conducts a count. If the inventory is complete and all counts match, the ammunition is bundled and loaded on a convoy vehicle.

- Three copies of the inventory are dispatched—one to the convoy commander, one to the unit being issued, and one for records.

Accountability and Reporting

Accountability and reporting procedures are equally thorough. SAAS-MOD reporting, net explosive weights, the DODIC, and a LOT locator file are sent to the sustainment brigade, Marine OIC, and CMMC daily to provide stock and transaction visibility. [LOT locator is a specific location code relating to how and where ammunition can be stored.] The files created in the SAAS-MOD transactions are loaded into TAMIS-R to reflect issued items on the unit TAMIS-R requests. A 100-percent inventory also is completed monthly.

The Army and Marine Corps class V merger at Al Asad was not only historic; it was an enormous contribution—building teams capable of extraordinary success and joining new ideas and methods to best support the warfighter. **ALOG**

FIRST LIEUTENANT GLEN R. DOWLING IS THE COMPANY OPERATIONS OFFICER AND CLASS V OFFICER IN CHARGE IN ANBAR PROVINCE, IRAQ. HE HOLDS A BACHELOR'S DEGREE IN CRIMINAL JUSTICE FROM ARIZONA STATE UNIVERSITY AND IS A GRADUATE OF THE INFANTRY OFFICER BASIC COURSE, BRADLEY LEADERS COURSE, AND AIRBORNE COURSE.

Army and Marine GS/DS Class I Storage and Distribution Center

BY SECOND LIEUTENANT CARLOS E. COMAS

The 24th Quartermaster Company and Marine Corps Combat Logistics Battalion 1 combined their operations at Al Asad, Iraq, to create a centralized class I distribution center that provided both GS and DS class I services.

On 8 October 2006, the 24th Quartermaster Company took over the general support (GS) class I (subsistence) area at Al Asad, Iraq. The company, part of the 593d Corp Support Group at Fort Lewis, Washington, was assigned to the 630th Combat Sustainment Support Brigade. At the time, we provided support to only 4 forward operating bases (FOBs) and 44,000 personnel. Al Asad also had a direct support (DS) class I area, run by the Marine Corps Combat Logistics Battalion 1, that provided support to 5 FOBs and 7,600 personnel.

Now, imagine a centralized distribution center providing class I support to all of Anbar province and its surrounding FOBs. All of the commodities would be in one location under a joint service administration. This was our challenge: to bring together the two class I areas—one Army GS and one Marine DS.

The goal was to create a joint distribution center at Al Asad, composed of a forward distribution center multiclass section, a central receiving and shipping point, a petroleum section, and a combined GS/DS class I center. To do this, we had to merge the Army and Marine Corps class I operations into a joint distribution center, which would improve customer service, reduce transportation requirements, improve asset visibility, and provide a more secure location.

The Logistics Civil Augmentation Program contractor KBR, Inc., then would take full authority and operational control of the class I yard, leaving the Army and Marine Corps personnel to supervise, evaluate, and submit requisitions.

Merging Operations

Merging the GS and DS yards with Army, Marine Corps, and KBR personnel in one location was the first step. The second step was designating and establishing the new roles of the Army and Marine personnel. With the merger, the Army provided the officer in charge and the Marine Corps provided the staff noncommissioned officer (NCO) in charge and the requisitions NCO. Their

responsibilities were to provide oversight of the operation; serve as liaisons between the Army, Marine Corps, and KBR; and requisition stocks. The officer in charge was responsible for all reports, providing the evaluation of KBR to the higher headquarters, and serving as the accountable officer. The staff NCO in charge was responsible for the general oversight of the yard and reporting contract violations. The requisitions NCO was responsible for the requisition and distribution of all stocks to the FOBs and Al Asad personnel.

Since the two services have different operating procedures, the combined center had to have its own set of innovative procedures for ordering requisitions.

The Army and Marine class I storage and distribution center is a good example of what the Armed Forces will look like in the next 5 years.

The Army uses Department of the Army (DA) Form 1687, Notice of Delegation of Authority-Receipt for Supplies, and DA Form 3161, Request for Issue or Turn-in. The customer provides an assumption of command order from his unit and the DA Form 1687, which enables an individual to pick up class I items on behalf of the unit. The Marines use a different system called “rapid requests,” which is a battalion screening process that authorizes customers to pick up rations on behalf of the unit. The Army provides a 24-hour turn-around, while the Marine Corps fills orders on the spot. The solution to resolving these differences was to merge the Marine Corps and Army systems by allowing units to pick up 10 items at a time once a week and by using DA Form 1687 and the assumption of command order to maintain an accurate accountability of on-hand stocks and assist in the requisition process.

Both services used the same provider, Public Works Corporation (PWC) based in Kuwait, but they did it differently. The Marine Corps class I activity coordinated directly with the provider, while the Army



A Soldier inventories class I rations with KBR contractors during the joint GS/DS inventory conducted before the relief in place/transfer of authority with KBR.

coordinated through a higher headquarters. To overcome this difference, the Army and Marine Corps consolidated their requisitions into one account for operational rations and coordinated directly with PWC. With this system, orders arrived prepackaged. This required the FOBs to provide their requests using the PWC order format. Each FOB had a designation code that identified its order when it arrived at Al Asad. This process reduced double-handling and improved the packaging, distribution, and staging of stock.

Transferring Operations to KBR

Once the Soldiers and the Marines came under a joint system, they initiated the KBR merger. To manage the relief in place and transfer of authority (RIP/TOA), Army and Marine Corps personnel and KBR established a phased operation to conduct the transfer. They conducted a joint inventory of stocks at both yards before the rations were combined at one location. KBR provided all materials-handling equipment and assumed control of storage. Army and Marine Corps personnel established day and night shifts and served as supervisors and liaison officers with the Army and Marine Corps higher headquarters. The KBR statement of work specified the contractor's responsibilities and the services' expectations to fulfill the legal service obligations. Army and Marine Corps

personnel had to take the online contracting classes offered through the Defense Acquisition University to learn the contract language, roles and regulations, and legal ramifications.

The RIP/TOA included another set of challenges,

including the joint technical inspection of equipment, the depletion of stocks from the GS class I yard, the movement of rations to the DS class I yard, and, finally, the 100-percent inventory of stocks and rations. Over a 1-month period, the Army and Marine activity and KBR completed the RIP/TOA by merging the stocks, preparing a RIP/TOA checklist, restructuring a new standing operating procedure, and completing the final inventory.

The Army and Marine class I storage and distribution center is a good example of what the Armed Forces will look like in the next 5 years. The armed services will secure a site, contractors will take over the logistics and combat support, and the armed services will put the logistics Soldiers back into the war. Working with a sister service was a great opportunity to understand another service's operations and learn new mechanisms to improve our tactics, techniques, and procedures. Joint service operations definitively highlight the phrase, "One team, one fight!" **ALOG**

SECOND LIEUTENANT CARLOS E. COMAS IS THE EXECUTIVE OFFICER OF THE 24TH QUARTERMASTER COMPANY, 593D SUSTAINMENT BRIGADE, AT FORT LEWIS, WASHINGTON. HE HOLDS A BACHELOR'S DEGREE IN PSYCHOLOGY AND IS A GRADUATE OF THE OFFICER CANDIDATE SCHOOL AND THE QUARTERMASTER OFFICER BASIC COURSE.

Joint Asset Visibility: *Why So Hard?* Commercial Sector Information Technology Advancements

BY LIEUTENANT COLONEL JAMES C. BATES, USA (RET.)

In the third article of his asset visibility series, the author discusses how commercial sector advancements in information technology are being used to help DOD meet its asset visibility needs.

Radio frequency identification (RFID) is having a transformational effect on the entire global supply chain. Some of the most intellectually talented people in the world are working on using RFID to capture logistics data. This is not surprising, considering the effect that the reduction in manpower and the improvement in the amount and availability of logistics information resulting from the adoption of RFID technology will have on the world economy. The cost savings to the Department of Defense (DOD) alone have been estimated to be as high as \$1.781 billion.

Just as DOD benefits from the integrating influence of the Joint Staff and the U.S. Joint Forces Command, the commercial sector has many national and international organizations that standardize data, techniques, and procedures in order to promote domestic and global supply chain standardization and interoperability. Many of these organizations influence DOD directly or indirectly. Some of the more important are the International Organization for Standardization (ISO); the American National Standards Institute (ANSI); the ANSI Accredited Standards Committee (ASC); the United Nations/Electronic Data Interchange for Administration, Commerce, and Transport (UN/EDIFACT); GS1; GS1 US; the National Motor Freight Association; and Electronic Product Code-Global (EPCglobal). These organizations have tremendous influence in the conduct of global commerce and directly affect DOD.

Electronic Data Interchange

One of the major long-term goals of both the commercial sector and DOD is to significantly reduce the amount of human involvement needed to input logistics data to automated information systems that, in turn, digitize and electronically process the data. Currently, at almost every transshipment point, Soldiers, Sailors, Airmen, Marines, and civilians manually enter information into automated informa-

tion systems. Most of this information, however, has already been digitized and processed by other automated information systems. The burgeoning implementation of electronic data interchange (EDI), which passes logistics information electronically (not only within corporations but also among them), is yet another truly transformational endeavor.

The ANSI ASC X12 Committee promulgates EDI domestically, while UN/EDIFACT does so internationally. Reducing the amount of human involvement in capturing logistics data not only improves data reliability by reducing human error; it tremendously speeds up the process and saves billions of dollars a year.

ISO Developments

ISO develops worldwide industrial and commercial standards. It is a consortium of national-level standards organizations, with representatives from major commercial industries and sectors. While it is chartered as a nongovernmental organization, it has a great deal of influence on governments since many of its standards become law and are included in treaties. In an effort to develop standards for information technology (IT), ISO teamed with the International Electrotechnical Commission (IEC) to form the first ISO/IEC joint technical committee. This committee is working toward developing and promoting the interoperability of IT systems, tools, automatic identification, and other data capture techniques.

GS1 and GS1 US

GS1 US, formerly called the Uniform Code Council (UCC), oversees the domestic use of the universal product code (UPC), or bar code. GS1 US joined the GS1 in 2002. According to its website, GS1 is a voluntary standards organization charged with the management of the EAN [European Article Numbering]/UCC System and the Global Standard Management Process. The EAN/UCC System standardizes bar codes, EDI

transaction sets, extensible markup language (XML) schemas and other supply chain solutions for more efficient business practices. By administering the assignment of company prefixes and coordinating the accompanying standards, GS1 maintains the most robust item identification system in the world.

GS1 and GS1 US have developed the global trade item number (GTIN), which is used as the basis for all UPC bar codes. The GTIN (comprising only numbers—letters and characters are excluded) uniquely identifies commercial items sold, delivered, and stored throughout the world. The number also includes a method of identifying level of packaging to include unit, case, and pallet. Currently, a GTIN can be 8, 12, 13, or 14 digits long.

In addition to the GTIN, the GS1 and GS1 US have developed the global location number (GLN), which is meant to provide a worldwide, standardized way of identifying locations. The GLN is a 13-digit number. According to the GS1 US website, 196 different location coding methods are recognized by the ANSI ASC X12 and 212 different location coding methods are recognized by the UN/EDIFACT. The international and national standardization organizations are working to reduce this number.

GS1 and GS1 US also have developed a serial shipping container code (SSCC) to identify logistics-related shipping containers, a global individual asset identifier (GIAI), and a global returnable asset identifier (GRAI). The GTIN, GLN, SSCC, GIAI, and GRAI numbers have been specifically designed to promote electronic commerce and interoperable logistics information flow. The GS1 US website describes the situation as follows—

Managing the physical flow of product with the electronic flow of business data is a major challenge in today's intensely competitive environment. The same time, attention, and detail that goes into designing and producing a quality product must also be evident in the transmission of that product's business data through the supply chain. A system built with standardized processes and a common business language is needed to monitor and manage the movement of product and information through every component along the supply chain.

Electronic Product Code

EPCglobal is a joint venture between GS1 and GS1 US. This organization oversees the EPC. Just as the bar code has reduced the time and manpower needed to capture data on an item's identification, the EPC is doing likewise with RFID technology. The EPC is a license plate-type number that uniquely identifies items of equipment and supplies. It is designed to assimilate the different item identification numbering schemes of both the commercial and government sectors.

Each EPC number contains header data (assigned 8 bits), a manager number (assigned 28 bits), an object class (24 bits) and a serial number (36 bits). Information contained in a passive EPCglobal RFID tag consists solely of the EPC, although additional fields are sometimes needed to encode and decode information from a multitude of numbering systems to make them readable by humans.

Just as DOD uses automated information systems, local area networks, and wide area networks to correlate pertinent logistics information to a national stock number, transportation control number, or document number, the EPCglobal Network uses the EPC as its basis for data correlation. According to the EPCglobal website, "The EPCglobal Network is a set of technologies that enable immediate, automatic identification and sharing of information on items in the supply chain ... enabling true visibility." The EPC is one of the five elements of the network; the others include the identification system (RFID tags and RFID readers), the object name service (ONS), Savant (a software technology), and the physical markup language (PML).

Object Name Service

ONS converts alphabetic names into numeric Internet protocol addresses. The RFID Journal describes ONS as—

...an automated networking service similar to the domain name service (DNS) that points computers to sites on the World Wide Web. When an interrogator reads an RFID tag, the electronic product code is passed to middleware, which, in turn, goes to an ONS on a local network or the Internet to find where information on the product is stored. The middleware retrieves the file (after proper authentication) and the information about the product in the file can be forwarded to a company's inventory or supply chain applications.

The RFID-associated middleware described above is Savant. The RFID Journal describes Savant systems as "distributed software systems developed ... to act as the central nervous system of the Electronic Product Code Network. A Savant takes data from an RFID reader, does some filtering, handles product lookups and sends the information on to enterprise applications or databases."

Physical Markup Language

The last of the five elements of the EPCglobal Network is the PML. Just as there is hypertext markup language (HTML) for use with the Internet, there is now a PML for use with the EPCglobal Network. It establishes data for physical objects. The RFID Journal explains it this way: The EPC identifies an individual

product, but all the useful information about that product is written in PML, a new standard computer code. PML is based on the widely accepted XML.

Because it is meant to be a universal standard for describing all physical objects, processes, and environments, PML will be broad and will cover all industries. It will provide a common method for describing physical objects and will be broadly hierarchical. So, for instance, a can of Coke might be described as a “carbonated beverage,” which would fall under the subcategory “soft drink,” which would fall under the broader category “food.” Not all classifications are so simple, so to ensure that PML has wide acceptance, EPCglobal is relying on work already done by standards bodies, such as the International Bureau of Weights and Measures and the National Institute of Standards and Technology in the United States.

The amount of data transmitted over the EPCglobal Network is expected to grow at a phenomenal rate. VeriSign, an information technology firm that provides digital security and network infrastructure services, manages both the domain name service (which currently handles about 17 billion messages a day) and the ONS. Some estimates suggest that, within the next decade, the ONS network will transmit nearly 4 quadrillion messages a day.

Logistics Network Diversity

As the preceding paragraphs point out, the amount of daily computer processing associated with attaining visibility of items in transit and in storage is enormous and will only get larger. RFID tags alone will not solve this complex problem. The really hard part is

matching the scant “license plate” data contained on a passive RFID tag with robust, interoperable automated information systems. These systems, in turn, must provide information that can be processed and effectively organized within a single wide area network, viewable by authorized stakeholders around the world.

What makes this so hard? Hundreds of different automated information systems make up the DOD global supply chain. Many of these systems were designed decades ago, and most of these systems were not meant to provide information to the wide area networks that are now accessible through the Internet. Moreover, almost none of these systems process information in a method that is compatible and interoperable with a “total system” perspective. Instead, they were developed by the disparate communities within DOD, such as Army wholesale supply, strategic air transportation, strategic surface transportation, local truck transportation, Army retail supply, Navy retail supply for aviation, Navy retail supply for vessels, Marine Corps retail supply, Air Force retail supply, and strategic deployment.

Because the systems have been designed and fielded to solve parochial information requirements with little thought to the DOD global supply chain, they are a prime example of suboptimization, in which over-emphasis of a portion of the supply chain enables it to perform better at the expense of the larger, more important total system. This bottom-up approach to information architecture (where the services and the agencies design their own information systems) degrades interoperability and inhibits data integration across the DOD global supply chain. In fact, DOD has not one but several supply chains.

DOD Logistics Information Systems:

Air Force Equipment Management System (AFEMS)
Asset Tracking and Logistics Automated Support System (ATLASS)
Automated Air Load Planning System (AALPS)
Automated Manifest System (AMS)
Business System Modernization (BSM)
Cargo Movement Operation System (CMOS)
Combat Ammunition System (CAS)
Computerized Movement Planning and Status System (COMPASS)
Conventional Ammunition Integrated Management System (CAIMS)
Cargo Routing Information Management (CRIM)
Defense Automatic Addressing System/Logistics Information Processing (DAAS/LIPS)
Defense Blood Standard System (DBSS)
Defense Fuels Automated Management System (DFAMS)
Defense Transportation Recording and Control System (DTRACS)
Defense Transportation Tracking System (DTTS)
Department of Defense Activity Address File (DODAAF)
Distribution Standard System (DSS)
Defense Reutilization and Marketing System (DRMS/DAISY)
Fleet Inventory Transaction System (FITS)
Force Inventory Management Analysis Reporting System (FIMARS)
Global Air Transportation Execution System (GATES)

Global Transportation Network (GTN)
Integrated Booking System (IBS)
Joint Force Requirements Generator (JFRG II)
Joint Operations Planning and Execution System (JOPES)
Naval Construction Force Management Information System (NCFMIS)
MAGTF (Marine Air Ground Task Force) Deployment Support System (MDSS II)
Marine Corps Ammunition and Accounting Reporting System (MAARS-II)
Marine Corps Stock Control System (MCSCS)
Standard Army Ammunition System (SAAS)
Standard Army Retail Supply System (SARSS)
Standard Base Supply System (SBSS)
Standard Automated Materiel Management System (SAMMS)
Standard Property Book System-Redesigned (SPBS-R)
Supported Activity Standard Supply System (SASSY)
Theater Army Medical Management Information System (TAMMIS)
Transportation Coordinators Automated Information Management System II (TC-AIMS II)
Transportation Coordinator Automated Command and Control Information System (TCACCIS)
Unit Level Logistics System-Ground (ULLS-G)
Worldwide Ammunition Reporting System (WARS)
Worldwide Port System (WPS)

As simply another player in worldwide commerce, DOD must be able to adapt quickly to the ongoing transformational, logistics-related IT developments that are gaining acceptance in the civilian sector. This is a challenge for DOD since there is no unified direction regarding IT assimilation.

Instead of one all-encompassing logistics-related wide area network, DOD has several. Logistics data are captured on both a classified wide area network and an unclassified wide area network, thereby inhibiting the exchange of information among the systems. Functionally, we have “families of systems” that feed families of systems. It is no surprise that logistics data are not standardized, integrated, or interoperable among these hundreds of locally designed automated information systems. The sidebar at left lists a few of the DOD logistics management information systems; it is by no means an all-inclusive list.

If the information captured and processed by an automated information system is to be passed on to the DOD global supply chain, there must be a means of transmitting the logistics information to a wide area network for global supply chain integration. The Air Force normally deploys to fixed facilities with links to an electric grid, and the Navy deploys with a full complement of sophisticated satellite telecommunications gear. However, land forces typically deploy over very large geographical areas that often are not connected to an electrical grid and have no connection to the Internet, a wide area network, or sometimes even a local area network. Similarly, many temporary transshipment points and the transshipment points in austere environments are not connected to information networks.

Reporting Asset Status

The guidance on which level of organization should provide reports regarding asset receipt, issue, and storage information appears to be conflicting. In the past, DOD required visibility of items only as far forward as the supply support activities (direct support units). However, as IT improves, users of the DOD supply chain will desire visibility of items received, issued, and stored at unit level. Let’s take a look at why this is so important.

Let’s say that a supply support activity (SSA) supports a brigade-sized force of 3,000, which is composed of 25 individual units (120 soldiers per unit). When they are on the move or deployed to austere environments, these units have difficulty transmitting their logistics information to the SSA, which also provides a local area network and has links to a theater-level local area network that, in turn, has links to the wide area networks.

In fast-paced tactical operations, it is very difficult to achieve full IT connectivity between the units and the SSAs that support them. Because of this, logisticians

in the DOD global supply chain often are not able to view the receipts, issues, and on-hand balances of the units. A unit may receive a critical repair part, but, if this information is not passed to the information networks, interested stakeholders will not know about it. Furthermore, the global supply chain will not have inventory data on the combat loads of the units. Combat loads are expendable items that are meant to sustain units until replenishment arrives from a supply source. They usually are measured in days of supply.

This is a serious flaw since, on an aggregate level, the number of items stored within combat loads is quite large and can represent the bulk of items in storage within an operational area. For instance, if an SSA stocked 25 high-mobility multipurpose wheeled vehicle (HMMWV) tires, but each of the 25 units supported by the SSA stocked 4 HMMWV tires, the aggregate number of tires stored at the unit level would be 4 times as large as the number stocked at the direct support level. Similarly, logisticians with visibility of unit combat loads of operational rations, packaged petroleum, barrier materials, small arms ammunition, and common repair parts would be in a much better position to ensure readiness, especially if cross-leveling were required.

Considering that our deployed land forces must now operate in noncontiguous, distributed environments with supply lines subject to perpetual interruption and interdiction, it makes sense to track on-hand balances at all inventory points, to include the unit level. With advancements in IT, it is much easier to move logistics data than it is for service members to move supplies continually. On today’s and tomorrow’s battlefields, the best source of resupply, especially on a temporary basis, may be a unit nearby. If this can be done, not only within a single service but among all of the services, coalition forces, and interagency partners, the incidence of stock outs (required items at zero balance) will be significantly reduced. The exchange of just one repair part might allow an M1A1 battle tank to resume full combat operations, for example.

Improving readiness at the unit level clearly demonstrates the importance of the ongoing commercial and military efforts to standardize information, enhance EDI, and exploit automatic information technology. Although these efforts have already made a significant improvement to distribution, even greater improvements are on the horizon.

ALOG

LIEUTENANT COLONEL JAMES C. BATES, USA (RET.), WORKS FOR ALION SCIENCE AND TECHNOLOGY AS A SENIOR ANALYST. HE IS A CERTIFIED PROFESSIONAL LOGISTICIAN AND A GRADUATE OF THE ARMY COMMAND AND GENERAL STAFF COLLEGE AND HOLDS AN M.B.A. DEGREE FROM THE UNIVERSITY OF HAWAII. HE CAN BE CONTACTED AT JAMES.BATES@JE.JFCOM.MIL.

From Sutlers and Canteens to Exchanges

BY JAMES T. DELISI

Soldiers have always sought the comforts of home while deployed in faraway places. The modern exchange service has its roots in the storekeepers and sutlers of the past.

The effect of closing post exchanges on the retention of Soldiers has been the subject of an ongoing debate for several years. Virtually all Active Army, Army National Guard, Army Reserve, and retired personnel and their families use these facilities. But how many of these customers know how the current exchange system came to be?

During the Revolutionary War, each state required its militiamen to furnish themselves with such equipment as flintlocks, bayonets, swords, tomahawks, gun flints, knapsacks, canteens or wooden bottles, and, often, a jackknife. Each brigade had a civilian storekeeper authorized to sell personal wares. The most popular items were liquid spirits, clay pipes, and tobacco.

During the Civil War, a sutler (a licensed merchant) was assigned to each regiment of the Union Army. The sutlers stocked tobacco, liquor (for the officers), rubber ponchos, and stoves for Sibley tents, which Soldiers who had money could purchase. The relationship between Soldiers and sutlers tended to be contentious. Sutlers only conducted cash transactions because Soldiers could die in the next battle or succumb to a fatal disease. Since Soldiers were not paid for months, they

sometimes resorted to stealing from the sutler. Both officers and enlisted personnel hated the sutler, who had a virtual monopoly and often took full advantage of this position.

After the Civil War, Soldiers could purchase food or other necessities from a post trader. In the 1870s, Soldiers ate in mess halls, where the type of rations served remained virtually the same over the next 30 years. If they had money or credit, they could supplement their diets by purchasing food from the post trader, who also sold tobacco and alcoholic beverages.

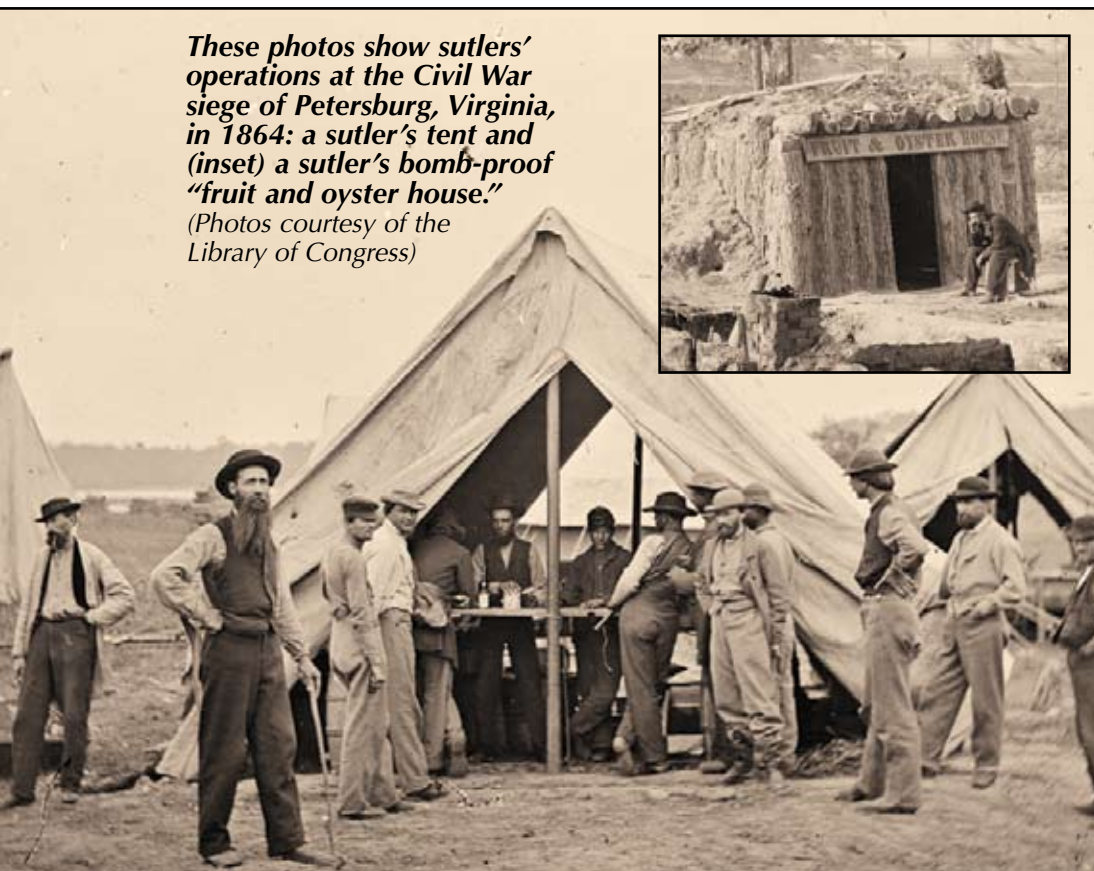
These post stores operated under a franchise from the War Department. Other local merchants were not allowed to compete with the post store. This provided the post trader the opportunity to overcharge for everything since he had a monopoly. On pay day, the post trader sat at the pay table, where he collected the debts Soldiers had run up at his store. Both officers and enlisted men considered the post trader a parasite from whom there was no protection and saw a definite need for reform.

General Arthur MacArthur, the father of World War II General Douglas MacArthur, opened a company “canteen” while commanding Fort Selden, New Mexico, during the 1880s since his post was considered too small for a post trader. This facility provided a place for enlisted men to socialize outside of the barracks. Profits generated from the canteen were used to purchase special food for the mess hall, pool tables, books and magazines, and seeds for the company vegetable garden.

MacArthur pushed to implement this program throughout the entire Army. In 1895, the War Department issued General Order Number 46, which directed post commanders to establish an exchange at every post where practicable. These exchanges were usually referred to as “canteens.”

These photos show sutlers' operations at the Civil War siege of Petersburg, Virginia, in 1864: a sutler's tent and (inset) a sutler's bomb-proof "fruit and oyster house."

(Photos courtesy of the Library of Congress)





Exchange operations served Soldiers in World War I (upper left), World War II (upper center), the Korean War (upper right), the Vietnam War (lower left), the Persian Gulf War (lower center), and Operation Iraqi Freedom (lower right). (Photos courtesy of AAFES)

In *Plain Speaking*, President Harry S. Truman recounted his experiences as a regimental canteen officer during World War I. He observed that almost none of the canteens generated a profit. Many officers got into trouble handling money. However, Truman successfully operated a regimental canteen for which 1,000 Soldiers provided a total of \$2,000 in initial operating capital; in 6 months, it repaid the original investment and earned another \$15,000 in dividends.

In 1921, the first centralization of unit exchanges to create a post exchange took place at Schofield Barracks, Hawaii. The post exchange was established to replace all regimental and associated canteens on post.

In 1939, the Army numbered approximately 190,000 Soldiers. It consisted of three divisions in the continental United States staffed at half-strength (15,000 soldiers) and two half-strength divisions located in Hawaii and the Philippines. In 1940, the War Department brought approximately 1 million National Guardsmen and inductees onto the Active Army's rolls and projected that the total armed forces would expand to approximately 8 million personnel. The existing exchange system would be unable to handle the demands of this expansion. Reorganization resulted in the formation of the Army Exchange Service (AES), which had the mission of providing service to Soldiers in ever-expanding theaters in Europe and the Pacific as well as the continental United States (CONUS). In 1942, AES issued its first catalog, which generated approximately 80,000 orders from overseas troops.

Following World War II, AES remained to support occupation forces overseas. Nearly 80 new exchanges were needed to support the needs of Soldiers and their dependants. In 1950, AES was again reorganized to form the Army and Air Force Exchange Service (AAFES). In 1952, mobile exchanges began operating in forward areas in Korea. Post and installation

commanders had operational control and responsibility for exchanges that operated on Army and Air Force installations in CONUS. The Vietnam Regional Exchange was established in 1965, and the mobile exchanges developed during the Korean War evolved into tactical field exchanges (TFEs). The TFEs were operated in areas with no AAFES operations. In 1970, based on favorable results from a 1-year test, AAFES assumed operational control and responsibility for all Army and Air Force exchanges operating in CONUS.

Today, AAFES has a website and customers can order over the Internet. In 2005, AAFES revenues were \$8.7 billion, which ranked it 83d among the world's top 250 retailers. It has more than 45,000 employees operating out of approximately 3,100 facilities in more than 30 countries. It serves nearly 12 million eligible customers, including active duty, retired, and Reserve component personnel, military families, and some Government employees. AAFES operates theaters, libraries, convenience stores, and even gas stations. It also has partnered with a variety of commercial food outlets, such as Taco Bell and Baskin-Robbins.

AAFES has had an interesting evolution from civilian storekeepers accompanying militiamen during the Revolutionary War to current online web operations. However, the basic mission has remained unchanged: Provide the men and women of the armed forces and their families with service and merchandise they need to make life more comfortable.

ALOG

JAMES T. DELISI WORKS PART TIME FOR A NONPROFIT ORGANIZATION. HE RETIRED FROM FEDERAL CIVIL SERVICE AS A MANAGEMENT ANALYST WITH THE ARMY FORCES COMMAND. HE ALSO RETIRED AS A LIEUTENANT COLONEL IN THE ARMY RESERVE. HE HAS A B.A. DEGREE IN POLITICAL SCIENCE FROM DUQUESNE UNIVERSITY AND AN M.A. DEGREE IN BUSINESS MANAGEMENT FROM CENTRAL MICHIGAN UNIVERSITY.

COCOM, ADCON,OPCON, TACON, Support —Do You Know the Difference?

BY DR. CHRISTOPHER R. PAPANONE

The news article about the new Army Materiel Command (AMC) arrangement with the Military Surface Deployment and Distribution Command (SDDC), published in the May–June 2007 issue of *Army Logistician*, improperly explained the SDDC’s command relationships. According to the news article—

The change in the status of SDDC means that SDDC is under the administrative control of AMC but the operational control of TRANSCOM.

SDDC is *assigned* to the U.S. Transportation Command (TRANSCOM) as its Army service component command (ASCC), and the command authority, therefore, is “combatant command” (COCOM). According to Title 10 of the U.S. Code (USC) 164(c)(1), COCOM authority “includes giving authoritative direction to subordinate commands and forces necessary to carry out missions assigned to the command, including authoritative direction over all aspects of military operations, joint training, and logistics” (emphasis added).

Under 10 USC 3013(b), 5013(b), and 8013(b), the Secretary of the Army retains oversight for the “internal organization, training, logistics [meaning *internal* logistics], readiness, control of resources and equipment, mobilization, demobilization, administration, support, and discipline” of SDDC. In doctrinal terms, these are administrative control (ADCON) responsibilities, even after the assignment of SDDC’s capabilities to TRANSCOM, which is a functional combatant command. It is important to note that ADCON is not a command relationship but serves as a doctrinal interpretation of the departmental responsibilities outlined in the Federal statute.

My purpose here is not to single out *Army Logistician’s* mistake. Rather, the *Army Logistician* news article is an example of misrepresenting appropriate command relationships that brings to light a wider professional concern: How well do Army logisticians understand how command relationships can affect logistics responsibilities at all levels? A basic understanding of the four types of command relationships is critical to achieving this understanding.

In the joint force commander’s purview, four types of command relationships are possible. **COCOM**, as already mentioned, is the broadest command authority. Based in Federal law and delegated by the Secretary of Defense when he assigns forces in his “Forces for Unified Commands” memorandum, COCOM cannot be further delegated by the combatant commander.

Operational control (OPCON) is a joint doctrinal term and, thus, is not based directly in law. It reflects a more temporary arrangement than COCOM and includes the authority to organize commands and forces and to employ those forces as the receiving commander considers necessary to accomplish assigned missions. OPCON does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training (as would COCOM). Because he has COCOM over *assigned* service capabilities or OPCON of other capabilities, as directed by the Secretary of Defense, the combatant commander may delegate OPCON over capabilities to lower-level commanders within his organization.

Tactical control (TACON) is a joint doctrinal subset of authorities that also is not based directly in law and that is something less than OPCON. It limits authority to direct control of *administrative movements or maneuvers* within the operational area as necessary to accomplish missions or tasks assigned. By virtue of having COCOM or OPCON of service-assigned or other combatant command-assigned capabilities, TACON can be delegated further down the chain within the same organization.

Support is a command relationship that is explicitly described in joint doctrine as a two-way responsibility. First, the supported command (that is, the commander who receives assistance from another commander’s force or capabilities) is responsible for ensuring that the supporting commander understands what assistance he requires. Second, the commander who provides the support must understand the requirements and fulfill them. Unlike OPCON or TACON, support is not a clear subset of COCOM authority, so to speak of “delegation” of support is inappropriate. Among combatant commanders, Defense agencies, and service departments, the support command relationship is critical to conducting joint operations and may exist separately, without reference to COCOM, OPCON, or TACON.

What adds to the problem of interpreting the practical aspects of these authorities to Soldiers is that Army doctrine (for example, Field Manual 5–0, Mission Command) does not recognize support as a bonafide command relationship. I have served with Army colonels and generals, even those in key joint staff or command positions, who, because they were inculcated with the Army view that “support” is not a legitimate command relationship, inappropriately call for “OPCON” or “TACON” while developing theater-based or national command and control structures. Hence, we see in

emerging Army doctrine the propensity to “OPCON” AMC’s Army Field Support Brigade to a combatant commander or his subordinate ASCC.

This tendency in the Army creates two critical issues. First, by law, only the Secretary of Defense or the President can OPCON forces that are assigned to a service department or a supporting combatant commander. AMC is assigned to the Department of the Army. AMC’s presence in theater may not be provided for by a Secretary of Defense deployment order designating the OPCON relationship and certainly not by the Secretary’s “Forces for Unified Commands” memorandum. Yet these are the only ways an OPCON relationship can be established legally. Second, an OPCON relationship would effectively cut off the relinquished capability from its main purpose and source of mission—to represent the Army’s ADCON responsibility (such as its provision of materiel) in theater. Even if the Secretary of Defense approved of the transfer of forces, it would not make sense. A *support* relationship is more appropriate when it is essential that the technical direction remain with the assigned organization so it can best provide task direction and use of resources as it supports from forward areas in a theater or in a

joint operations area. Again, the Army needs to get on board with this legal and joint doctrinal concept—that “support” is a command relationship.

Getting back to the relationship among AMC, SDDC, and TRANSCOM, we must be careful to conceptually separate ADCON from command relationships, though both are inherent to any ASCC mission. SDDC and its subordinate elements are inextricably dependent on the Department of the Army because SDDC obtains resources, direction for training, methods of morale and discipline, and such through its departmental ADCON relationship. In that regard, the Army has decided to use AMC as the new intermediary source for controlling administration instead of having SDDC rely directly on Department of the Army-level staff supervision. Nevertheless, SDDC has been, and remains, under the COCOM authority of the Commander of TRANSCOM.

DR. CHRISTOPHER R. PAPANONE IS AN ASSOCIATE PROFESSOR IN THE ARMY COMMAND AND GENERAL STAFF COLLEGE’S DEPARTMENT OF LOGISTICS AND RESOURCE OPERATIONS AT FORT LEE, VIRGINIA. A RETIRED ARMY COLONEL, HE HAS A PH.D. FROM PENNSYLVANIA STATE UNIVERSITY.

Reachback Cell Creates Explosives Safety Repository

BY KEITH A. BRAILSFORD

The Multi-National Corps-Iraq requested that the Army Defense Ammunition Center (DAC) at McAlester, Oklahoma, assess theater ammunition supply points, ammunition holding areas, and basic load ammunition holding areas and help write applicable documentation for selecting sites for and licensing of ammunition and explosives (class V) storage locations. In response, DAC deployed two quality assurance specialists-ammunition surveillance (QASASs) to the Iraq area of operations in September 2006 and created a reachback cell at DAC headquarters to support the mission.

The deployed QASASs completed the assessments of the predetermined storage areas, and the reachback cell compiled, reviewed, verified, and validated the documentation they generated. The reachback cell’s goal was to create a repository of safety information on explosives for each location. The information is filed both electronically and in hard copy and is available as “read only” to commanders, QASASs, explosives safety personnel, and other interested parties through Army Knowledge Online. The information will be kept current so that it can serve as an effective tool for those responsible for explosives safety.

The reachback cell also created site packages designed to meet mission requirements based on the amount of available real estate and storage space. The various storage methods were designed, with alternatives, to fit into most footprints the users could encounter. The types of storage options available vary from designs with small footprints that provide limited protection from incoming mortar attacks to designs for facilities requiring large footprints, such as theater ammunition supply points. Every design was created to provide explosives safety for personnel and asset protection. The designs are also practical enough to meet tactical requirements.

As a result of the reachback cell, the local QASASs and safety specialists have the necessary explosives safety assistance and training to support their mission requirements. They also will have a continuous flow of current, accurate information available online. **ALOG**

KEITH A. BRAILSFORD IS A QUALITY ASSURANCE SPECIALIST-AMMUNITION SURVEILLANCE AT THE ARMY DEFENSE AMMUNITION CENTER AT MCALESTER, OKLAHOMA. HE HAS A B.S. DEGREE IN CRIMINAL JUSTICE FROM LAMAR UNIVERSITY.

ALOG NEWS

FOURTH LOGCAP CONTRACT SPLIT AMONG THREE COMPANIES

The new contract for providing logistics support to Soldiers in the field under the Logistics Civil Augmentation Program (LOGCAP) has been awarded to three contractors. The companies selected are DynCorp International LLC of Fort Worth, Texas; Fluor Intercontinental Inc. of Greenville, South Carolina; and KBR, Inc., of Houston, Texas.

The first three LOGCAP contracts were awarded to one contractor: KBR in 1992, DynCorp in 1997, and KBR in 2001. The change to three contractors is designed to reduce the Government's risk in relying on one company to execute the entire contract and to better control costs by encouraging the three contractors to compete for individual LOGCAP task orders.

The Army uses LOGCAP contractors to provide a wide array of support, including supplying food, water, fuel, spare parts, and other items; operating dining and laundry facilities, housing, sanitation and waste management services, postal services, and morale, welfare, and recreation activities; and executing engineering and construction services, communications network support, transportation and cargo services, and facilities maintenance and repair.

Each of the three contractors will receive up to \$5 billion a year for a base year and 9 option years. Thus, each contractor could receive a maximum of \$50 billion over the life of the contract, and the total value of the contract could reach \$150 billion.

A fourth contractor—Serco Inc. of Vienna, Virginia—was awarded a separate contract for LOG-

CAP planning support earlier in the year. Serco will receive a maximum of \$45 million per year for a base year and 4 option years. Serco is the North American affiliate of a British company, Serco Group PLC.

DOD REVISES TRANSCOM CHARTER

The Under Secretary of Defense for Acquisition, Technology, and Logistics published a revised charter providing further guidance on the U.S. Transportation Command's (TRANSCOM's) role as the Department of Defense's (DOD's) distribution process owner (DPO). The revised charter, DOD Directive 5158.04, United States Transportation Command, dated 27 July 2007, designates the TRANSCOM commander as DOD's single manager for transportation assets other than those assigned in theater or unique to a particular service. The charter also designates the TRANSCOM commander as the Mobility Joint Force Provider, the DOD DPO, the DOD Distribution Portfolio Management Manager for Sustainment and Force Movement, and the Single Manager for Patient Movement. For more information on the charter, contact Lieutenant Colonel Len Grzybowski at leonard.grzybowski@ustranscom.mil or Captain David Myers at david.meyers@ustranscom.mil.

CHEMICAL DEMILITARIZATION PROGRAM REACHES MILESTONES

The chemical agent disposal facility at Aberdeen Proving Ground, Maryland—the second Army chemical demilitarization facility to complete chemical agent destruction operations—has become the first facility to receive regulatory approval to close.



A Soldier from B Company, 26th Brigade Support Battalion, 2d Brigade Combat Team, 3d Infantry Division, fabricates grates to seal culverts in Iraq. Recently, insurgents have been placing improvised explosive devices (IEDs) inside culverts found under bridges and in ditches. Sealing the culverts with fabricated grates, a technique called "culvert capping," prevents insurgents from being able to place IEDs inside culverts.

The Army Chemical Materials Agency received closure approval from the Maryland Department of the Environment, which acted under the Federal Resource Conservation and Recovery Act (RCRA).

While it operated from April 2003 to February 2006, the Aberdeen Chemical Agent Disposal Facility neutralized 1,623 tons of mustard agent. This was accomplished by mixing the mustard agent with hot water and sodium hydroxide. The neutralized agent then was drained from 1,817 1-ton steel containers, and the containers were decontaminated and recycled.

The first Army chemical demilitarization facility to complete operations, at Johnston Atoll in the Pacific, is working with regulatory agency officials to receive certification under RCRA to close. Facilities at Newport Chemical Depot, Indiana, Anniston Army Depot, Alabama, Pine Bluff Arsenal, Arkansas, Deseret Chemical Depot, Utah, and Umatilla Chemical Depot, Oregon, continue operations. Disposal facilities at Pueblo Chemical Depot, Colorado, and Blue Grass Army Depot, Kentucky, are under construction.

The successful operation of the Army's chemical demilitarization facilities has allowed the United States to complete the safe destruction of 45 percent of its chemical stockpile. This has allowed the United States to meet a major milestone under the Chemical Weapons Convention well ahead of the treaty's other signatory nations with major stockpiles; 182 nations have signed the treaty, though most do not possess chemical weapons. The deadline for 100-percent destruction of the Nation's chemical weapons material is April 2012.

SCOE LIFELONG LEARNING PORTAL TO ASSIST LOGISTICS LEARNING

The Sustainment Center of Excellence (SCOE) Lifelong Learning Portal is now available to assist training developers and instructors in educating Army logistics students. The portal, which can be found at www.cascom.army.mil/scoe/scoebbportal, is divided into separate learning domains, including Ordnance, Quartermaster, Transportation, Army Combined Arms Support Command/SCOE, Army Logistics Management College, and Soldier Support Institute.

The SCOE Lifelong Learning Portal provides instructors and training developers with access to study materials at any time, course record-keeping capabilities, and discussion boards to foster collaborative



Mine resistant ambush protected vehicles (MRAPs) are being sent to Iraq and Afghanistan to replace high-mobility multipurpose wheeled vehicles (HMMWVs) in combat patrols and other high-risk missions. The Department of Defense expects to ship an estimated 3,500 MRAPs to Iraq by the end of December. MRAPs come in three categories. Category I is designed for urban combat operations and holds up to six people. Category II has multi-mission capabilities, including convoy lead, troop transport, ambulance, explosive ordnance disposal, and combat engineering. Category III is designed for mine and improvised explosive device clearing. The MRAP in the photo is category III.

learning. Instructors can also post class announcements, administer quizzes online, and securely and confidentially post test scores.

This virtual training toolset is a significant component of the Army Training and Doctrine Command's plan for transforming Army training, which requires the use of technology to support training goals. Through this technology, Army logistics instructors can reach more students in more varied locations. For questions about the portal, contact Pete Thibodeau at 804-765-1445 or scoebblackboard@lee.army.mil.

TWO ALMC COURSES TO RECEIVE ACADEMIC CREDIT

Army Logistics Management College (ALMC) students now can receive academic credit from the Florida Institute of Technology and the University of Alabama in Huntsville for completing the Army Acquisition Basic Course (AABC) and the Army Acquisition Intermediate Contracting Course (AAICC). Colonel Shelley Richardson, the ALMC Commandant, signed memorandums of understanding with the two universities in May to formalize academic credit transfers.

The American Council on Education awarded each course 6 semester hours of undergraduate credits or 3 semester hours of graduate credits. Both courses



The Natick Soldier Center at Natick, Massachusetts, is working with a private company, Crosslink of St. Louis, Missouri, to develop electroluminescent panels for shelters. The technology will be incorporated into panels that can be attached to the walls of softwall shelters to provide white light. The panels can be punctured, torn, twisted (as shown above), or compacted and still be able to light up. The flexibility, durability, and light weight of the panels will allow them to be collapsed with the shelter. This will enhance their value in combat environments such as Iraq and Afghanistan, where the ability to deploy quickly, set up, pack up, and relocate is important.

are presented by the ALMC-Huntsville Campus as resident and onsite courses. Further information on the courses is available on the ALMC website at www.almc.army.mil/hsv/index.asp.

TRANSCOM AWARDS CONTRACT FOR CONUS FREIGHT MANAGEMENT

The U.S. Transportation Command (TRANSCOM) awarded the Defense Transportation Coordination Initiative (DTCI) contract to Menlo Worldwide Government Services, LLC, of San Mateo, California, in July to manage Department of Defense (DOD) freight movements in the continental United States (CONUS). Benefits of the new program are expected to include increased efficiencies, cost savings, and better visibility of freight movements.

DTCI, a TRANSCOM Distribution Process Owner initiative, is a freight management program designed to improve the reliability, predictability, and efficiency of DOD materiel movement within CONUS by reducing cycle times and improving predictability. This will be accomplished by using more dedicated truck schedules, cross-docking operations, better mode selection, and load optimization. Certain cate-

gories of freight, such as cash- or collect-on-delivery shipments; sensitive or classified shipments; arms, ammunition, and explosives; bulk and missile fuels; household goods; and privately owned vehicles, will be excluded from DTCI.

DTCI will be implemented in three phases. Phase I will implement DTCI at Defense Logistics Agency CONUS Defense distribution centers. Phase II will incorporate activities near the distribution centers, selected airports, and DOD shippers. All other scheduled DOD activities will implement DTCI during phase III. The Government may require the contractor to implement an additional 50 sites per year after phase II is implemented; however, the number of sites under this contract will never exceed 260.

PROCEDURES FOR RETURNING SECURE COMMUNICATIONS EQUIPMENT EXPLAINED

Communications security (COMSEC) equipment being returned to Tobyhanna Army Depot is often being sent to Defense Distribution Depot Tobyhanna instead. COMSEC equipment should be sent to—Commander, Tobyhanna Army Depot, 11 Hap Arnold Boulevard, ATTN: COMSEC Support, Building 73, Tobyhanna, PA 18466–5110. The Department of Defense Activity Address Code W81U11 should be used.

COMSEC personnel should follow regulations when preparing and packing the equipment for shipment. Publications that clarify turn-in procedures are—

- Technical Bulletin 380–41, Procedures for Safeguarding, Accounting, and Supply Control of COMSEC Material, which covers detailed control and accounting procedures for classified COMSEC equipment.
- Department of the Army Pamphlets 710–2–1, Using Unit Supply System (Manual Procedures), and 710–2–2, Supply Support Activity Supply System: Manual Procedures, which cover the accounting procedures for unclassified COMSEC equipment.
- Army Regulation 710–2, Supply Policy Below the National Level, which describes routine policy and procedures for requisitioning stock and supply management of both classified and unclassified COMSEC items.

For a complete list of COMSEC regulations, or for answers to other questions, call the Tobyhanna Army Depot's Communications Security Division at DSN 795–6598 or commercial 570–895–6598.

Log Notes

(continued from page 2)

twice (slide) through a tiedown ring but has only two tied-down points. Such an arrangement with one chain has no more strength than a single leg of chain.)

It is also critical that Soldiers not exceed the restraint capacity of any tiedown anchors on the load-bearing vehicle (the trailer) or the tiedown anchors on the load vehicle itself. Caution is necessary to ensure that two or more chains do not provide more restraint than a single anchor or other component may safely accommodate; to do this would result in an unsafe condition. The tiedown illustration in my article was reduced to fit on the printed page, but it reflects 10 chains for forward restraint using grade 70, 3/8-inch transport chains.

It is also critical for personnel securing loads to trailers with chain to fully understand working load limit (WLL) versus maximum breaking strength (MBS) so they do not exceed chain capacities. WLL is generally one-fourth of the value of the MBS of a chain. Many people use these terms almost interchangeably, but they mean very different things. The WLL is the critical number; for grade 70 transport chains, it is 25 percent

of the MBS. For example, 1/2-inch grade 70 chain has an MBS of approximately 48,000 pounds; however, its WLL is only 12,000 pounds.

Readers may find all the current restraint factors for highway, rail, maritime, and air in Department of Defense Interface Standard for Transportability Criteria, MIL-STD-1366E, paragraphs 5.1.6 to 5.2.1. You can find this document at https://assist.daps.dla.mil/quick-search/basic_profile.cfm?ident_number=36714. Rail restraints are high because railroad operators may couple cars within their rail yards at speeds of 4 to 6 miles per hour. Such coupling speeds will result in significant jarring of cars and their attached cargo loads. Normal truck operations do not join tractors to trailers at such speeds.

Highway transport restraint factors may also be found at the Federal Motor Carrier Safety Administration website at http://www.fmcsa.dot.gov/rules-regulations/administration/fmcsr/fmcsrruletext.asp?rule_toc=762§ion=393.102§ion_toc=1929.

—Neal H. Bralley
Fort Leavenworth, Kansas

Statement of Ownership, Management, and Circulation

(required by 39 U.S.C. 3685).

The name of the publication is *Army Logistician*, an official publication, published bimonthly by Headquarters, U.S. Army Combined Arms Support Command, for Headquarters, Department of the Army, at the U.S. Army Logistics Management College (ALMC), Fort Lee, Virginia. Editor is Robert D. Paulus, ALMC, Fort Lee, VA 23801-1705.

Extent and nature of circulation: the figures that follow are average numbers of copies of each issue for the preceding 12 months for the categories listed.

Printed: 18,095.

Total paid circulation, sold through Government Printing Office: 383.

Requested distribution by mail, carrier, or other means: 17,312

Total distribution: 17,712.

Copies not distributed in above manner: 125.

Actual number of copies of a single issue published nearest to the filing date: 17,438.

I certify that the statements made above by me are correct and complete:



Robert D. Paulus, 4 September 2007.

Army Logistician (ISSN 0004-2528) is a bimonthly professional bulletin published by the Army Logistics Management College, 2401 Quarters Road, Fort Lee, Virginia 23801-1705. Periodicals postage is paid at Petersburg, VA 23804-9998, and at additional mailing offices.

Mission: *Army Logistician* is the Department of the Army's official professional bulletin on logistics. Its mission is to publish timely, authoritative information on Army and Defense logistics plans, programs, policies, operations, procedures, and doctrine for the benefit of all logistics personnel. Its purpose is to provide a forum for the exchange of information and expression of original, creative, innovative thought on logistics functions.

Disclaimer: Articles express opinions of authors, not the Department of Defense or any of its agencies, and do not change or supersede official Army publications. The masculine pronoun may refer to either gender.

Reprints: Articles may be reprinted with credit to *Army Logistician* and the author(s), except when copyright is indicated.

Distribution: Units may obtain copies through the initial distribution system (DA Form 12 series). Private domestic subscriptions are available at \$21.00 per year by writing to the Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954, or by visiting <http://bookstore.gpo.gov> on the Web. For credit card orders, call (866) 512-1800. Subscribers should submit address changes directly to *Army Logistician* (see address below). *Army Logistician* also is available on the World Wide Web at <http://www.almc.army.mil/alog>.

Postmaster: Send address changes to: EDITOR ARMY LOGISTICIAN/ALMC/2401 QUARTERS RD/FT LEE VA 23801-1705.

Coming in Future Issues—

- **How the 3d Infantry Division Executed ARFORGEN**
- **Operation Mountain Thrust**
- **Reception, Staging, Onward Movement, and Integration**
- **A Values-Based Critique of Lean and Six Sigma**
- **The Brigade Special Troops Battalion**
- **Adapted Missions for Petroleum Liaison Detachments**
- **Unit Deactivation Logistics**
- **From Just in Case to Just in Time**
- **Logistics Force Generation for Iraq**
- **Training Challenges for SAAS–MOD**
- **Deciphering the World of COMSEC**

ISSN 0004–2528
DEPARTMENT OF THE ARMY
ARMY LOGISTICIAN
US ARMY LOGISTICS MANAGEMENT COLLEGE
2401 QUARTERS ROAD
FORT LEE VIRGINIA 23801–1705

Official Business

PERIODICALS POSTAGE
AND FEES PAID
AT PETERSBURG VIRGINIA
AND ADDITIONAL CITIES