Army Sustainment (ISSN 2155-9973) is a bimonthly professional bulletin published by the Army Logistics University, 2401 Quarters Road, Fort Lee, Virginia 23801–1705. Periodicals postage is paid at Petersburg, VA 23804–9998, and at additional mailing offices.

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

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

This newsletter is approved for the official dissemination of important and timely information to the Army. It is intended to provide the Army knowledge of current and emerging developments within the field of sustainment for the purpose of enhancing joint professional development.

By Order of the Secretary of the Army:

RAYMOND T. ODIENNIX
General, United States Army
Chief of Staff

OFFICIAL:

JEB E. WILSON
Administrative Assistant to the Secretary of the Army
2206901

A LETTER FROM GENERAL LARRY D. WYCHE

SPEARHEADING 70 YEARS OF EXCELLENCE

ON 31 JULY 2012, THE TRANSPORTATION CORPS

70TH ANNIVERSARY OF THE U.S. ARMY TRANSPORTATION CORPS

HEADLINES

70th Anniversary of the U.S. Army Transportation Corps

A LETTER FROM GENERAL LARRY D. WYCHE

FOCUS

A Letter From Major General Larry D. Wyche

The Transportation Corps Strategic Blueprint:
Charting the Path of Change for the Corps After Next
—Brigadier General Stephen E. Farmen

70 Years of the Transportation Corps—Richard E. Killblane

Synchronizing Field and Support: Roles and Responsibilities After 10 Years of War—Colonel Todd A. Heusner, Lieutenant Colonel Geoffrey C. DeTingo, and Lieutenant Colonel Craig M. Short

Completing the Chain: Mentorship Needed in Officer Basic Courses—Captain Erik J. Anties

Operational Contract Support: Not Just for Contingencies—Lieutenant Colonel Robert Gould, USA (Ret.)

Force Management and the Future of the Army Physician Assistant—Major Bill A. Soliz

Developing Logistics and Property Accountability in the Afghan Uniform Police—Chief Warrant Officer 2 Selina Gilliam

Through the Eyes of a Warrior—Siobhan R. Yarbrough

Rethinking the Last Tactical Mile: Adaptive Air Logistics in Africa—Major Joseph D. Gaddis, USAF

2012/2013

Operational Contract Support: Not Just for Contingencies—Lieutenant Colonel Robert Gould, USA (Ret.)

Force Management and the Future of the Army Physician Assistant—Major Bill A. Soliz

Developing Logistics and Property Accountability in the Afghan Uniform Police—Chief Warrant Officer 2 Selina Gilliam

Through the Eyes of a Warrior—Siobhan R. Yarbrough

The 3d Sustainment Brigade Embraces Finance—Major Terry Sullivan

The Effect of the Responsible Drawdown of Forces on Class I Sustainment—Captain Sophia Obamije

Supplying the Forces While Rightsizing Ammunition Storage Activities—Chief Warrant Officer 3 Cheryl D. Monroe

The Busiest Brigade Support Medical Company on the Battlefield—Captain Michael A. Miller

Writing for Army Sustainment

How to Choose and Use Seals—Dr. Roger G. Johnston and Dr. Jon S. Warner

The Race to 1 September—Lieutenant Colonel Robert King and Captain Leonard B. Della-Moreira

What “Right” Looks Like—Major Larry J. Lust, USA (Ret.)

HEADLINES

SPECTRUM

ARMY LOGISTICS UNIVERSITY

JULY–AUGUST 2012

www.alu.army.mil/alog
Change is constant, and embracing change starts here! The Army is transitioning, and we must understand the Army’s vision and operating concept for the next 5 to 10 to 15 years and ensure that we are prepared to support it. This begins with a systemic professional dialog and constant assessment so that when we “entrust” the continual adaptation and transformation of the Transportation Corps to the leaders of today and tomorrow, it perseveres.

Change is clearly a core competency for us, and the clock of change is turning fast. Yet, based on what I’ve seen to date and the talented professionals we have on our team, we have every reason to look forward with strength, confidence, and optimism! This bodes well for us, because in times of great challenges, change, and turmoil come great opportunities, and that is what I see before us now. Although we are in a period defined by tough budget constraints and force cuts, we cannot allow the current climate to dampen our spirits or, more importantly, restrict our creativity and imagination. Now, more than ever, we need to out-think our challenges and use this time to start envisioning the future and, in some cases, reinvent, modernize, and transform ourselves to help shape that future.

Logistics is about movement and velocity, and distribution is an operational process of synchronizing all elements of the logistics system to deliver the right things to the right place at the right time. It can only be achieved if enterprise services for sustaining the force are integrated and expanded under a single network and linked in a way that delivers, governs, and tracks materiel and people and provides proper visibility and information. Effective distribution means knowing how to connect the dots. As we develop future transportation and movement capabilities, personnel, and doctrine to support contingencies, we are uniquely suited to enhance and integrate sustainment activities in the process and to enable the operational environment with improved flexibility, transparent support, and a connected network of sustainment.
The Transportation Corps and our mission partners will be key. Our vision requires an inclusive and integrated strategic blueprint.

The first edition (2.0) of the Transportation Corps Strategic Blueprint is the long-term outlook for the corps through 2020 and aligns with the Army Capstone Concept and the Functional Concept for Sustainment. This blueprint is organized to be evolving across lines of effort that intersect with the Army Enterprise Infrastructure and the factors of doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF). Our blueprint will be promulgated using the assess, dialog, and transform construct: Think–envision–shape–set conditions–integrate–repeat.

The Chief of Transportation’s Intent

As the Chief of Transportation (COT), my intent is to connect, integrate, and deliver the transportation capabilities and capacity for movement and distribution excellence on all fronts and at all levels. We will deliver sustainment operations through the application of functional expertise (in deployment and distribution functions) to the Army Enterprise Infrastructure. As the spearhead of logistics and transform construct: Think–envision–shape–set conditions–integrate–repeat.

Breed transporter-logisticians of character. They will have an imaginative and entrepreneurial spirit. They will be pioneers (pioneering the “art of the possible”). They will be inquisitive and curious while maintaining honor, integrity, and readiness. They will be integrators, warriors, diplomats, and team players. They will have the right attitude, emphasizing mindsets over skill sets. The first edition (2.0) of the Transportation Corps Strategic Blueprint is the long-term outlook for the corps through 2020. We will remain the Spearhead of Logistics and transform construct: Think–envision–shape–set conditions–integrate–repeat.

Breed transporter-logisticians of character. They will have an imaginative and entrepreneurial spirit. They will be pioneers (pioneering the “art of the possible”). They will be inquisitive and curious while maintaining honor, integrity, and readiness. They will be integrators, warriors, diplomats, and team players. They will have the right attitude, emphasizing mindsets over skill sets.

Transporter-logisticians who are functional experts and savvy supply chain integrators. The intent is to—

- Deliver trained, innovative, adaptive, and professional combat logistics officer non-commissioned officers and enlisted personnel.
- Develop leaders and develop the individual as a leader.
- Develop modern solutions that meet Soldier, combatant commander, and Army requirements.
- Enable deployment and distribution.
- Enable sustainment operations through the application of functional expertise (in deployment and distribution) in order to meet combat commander and Army requirements.
- Connect, integrate, and deliver the transportation capabilities and capacity for movement and distribution excellence on all fronts and at all levels.
- Engage with our mission partners to achieve not only our objectives but also the objectives and tasks directed by the Army Training and Doctrine Command (TRADOC) toward 2020. We will remain the Spearhead of Logistics and transform construct: Think–envision–shape–set conditions–integrate–repeat.

COT’s Focus Areas/Priorities

- Proponent Optimization (DA Pamphlet 500-3, DA Pamphlet 600-15, Recruiting)
- TAA 14-18 = 4 Cycles out...
- Distribution White Paper (Beyond Operation Enduring Freedom)
- Army Watercraft Strategy for the 21st Century (Mission Command/Fleet Management/Modernization)
- Army Expeditionary Intermodal Operations
- TWV Strategy and JLTV
- TC Force Balance/Mix—TC Over-Modularization/Alignment?
- Distribution Enables Study
- Global Combat Support System-Army TC Integration
- Rail FDU
- Army Learning Model 2015
- Movement Control (Doctrine/Operational Design)
- Command, Control, Communications, Computers, and Internetworking (C4ISR) Implementation
- Master Driver Course/Additional Skill Identifier
- Rapid Expeditionary Deployment Initiative
- Branding/Marketing/Outreach/Roots/Regimental Affiliation/Profession of Arms

"Gentlemen, we have not run out of money. Now we have to think.—Winston Churchill"
The Transportation Corps enables movement, deployment, and distribution in support of the combatant commander and other Army requirements. Our focus is to deliver a full range of transportation capabilities in order to move critical resources rapidly (under positive control) through an integrated transportation-based global distribution system from the source to the end user.

The Transportation Corps operates under conditions of uncertainty and complexity, leveraging military, industrial, and host-nation capabilities and emerging technologies. We provide movement control and in-transit visibility and guide delivery to deployed forces across the full spectrum of operations. Our Soldiers and civilians are key to movement distribution. We are the Transportation Corps—partners in sustainment excellence! We are all Warfighters, supporting Warfighting and the Warfighter.

**Transportation Corps: What We Do**

In conjunction with our mission partners, the Transportation Corps provides transportation capabilities to rapidly deploy and distribute forces, equipment, and materiel to Army and Joint Forces operating across the full spectrum of operations anytime, anywhere in support of the National Military Strategy. The Transportation Corps also trains Soldiers and civilians and develops concepts and doctrine to perform transportation services and support functions for forces across the operational spectrum in a JIIM environment.

**Our Mission Partners**

We base our planning and transformation on the requirements and priorities of our mission partners. Our partners include, but are not limited to, the Army Combined Arms Support Command (CASCOSM); tactical, operational, and strategic sustainment headquarters; and senior sustainment leaders across the Army. In order to meet requirements, we will deliver capabilities that enable freedom of movement and end-to-end distribution across the spectrum of conflict.

Our collective goal with our mission partners is to enable deployment and distribution. We will work with our partners to advocate requirements of the combatant commander and other Army necessities. We will work with our partners to advocate and deliver agile resource and investment requirements for the enterprise through the planning, programming, budgeting, and execution process.

**The 4Ds**

Develop leaders and Develop as a leader. The Campaign of Learning is a vision launched by TRADOC in an effort to develop leaders across the force. As a part of achieving that vision, the Transportation Corps and School, with our mission partners, provides trained, innovative, adaptive, and professional leaders skilled in deployment and distribution.

Developing junior leaders with the skills to critically think and develop the situation at the lowest levels is our charge. We will do this in two ways: first, by establishing a competitive learning environment that prepares our Soldiers for today’s operating environment, and second, through active dialog and collaboration. This support plan charges us as a corps to know who we are and what we need to be. In this increasingly complex operating environment, we need to know, understand, and be precise when moving toward our vision.

**Distribution and Deployment (Shape it)**

The Army Operating Concept is clear in defining sustainment through 2026. It will require deploying the force, providing decentralized sustainment operations, and utilizing a Joint Deployment and Distribution Enterprise (JDEE). The mission and capabilities of the Transportation Corps are tightly woven into this vision.

Distribution and sustainment are cornerstone for the Sustainment Center of Excellence, and distribution is the cornerstone of the Transportation Corps. Essentially, distribution and sustainment are synonymous. The Transportation Corps, with our mission partners, strives to produce the people and matériel that enable an integrated deployment and distribution network. This will involve conducting systemic and systematic assessments to expose and focus areas in the distribution and deployment process while seeking modern solutions to bridge gaps and meet end users’ requirements, with a focus on enabling an integrated distribution network that facilitates sustainment.

**Spearhead The Future**

You. You are the future of the Transportation Corps. You will deploy.

You will distribute and be the recipient of distribution. We are Professionals (Military and Civilian).

You are a Transporter, a Logistician...A Warfighter supporting Warfighting. You will make history and be part of a long legacy and heritage of excellence.

Someone is counting on you to move, to deliver, to be at the spearhead of change—to know how to connect the dots and integrate the action in the new normal.

We are a Team: A Bastion of Innovative, Adaptive Expertise. Have the courage and the vision to move the force forward. The Corps is counting on you to:

- Develop leaders and develop as a leader.
- Enable deployment and distribution.
- Connect the dots while executing decentralized operations.
- Do it jointly in a JIIM context.
- Remember: Logistics is about movement, motion, velocity, and anything.
- Nothing Happens Until Something Moves!

To be an expert transporter, you must understand logistics! Leverage your functional roots to become a relevant enterprise logistician. Be an ambassador for your Corps and an entrepreneur to grow it into the future...To spearhead is to lead!

The Spearhead of Logistics.

---

**Strategic Blueprint 2.0**

**INTRODUCTION TO THE STRATEGIC BLUEPRINT 2.0**

**SPEARHEADING LOGISTICS INTO THE FUTURE**

**TRADOC**

**Army**

**SPEARHEADING LOGISTICS INTO THE FUTURE**

**SPEARHEADING LOGISTICS INTO THE FUTURE**

**A Portfolio of Initiatives**

**1942-2012: Spearheading 70 Years of Excellence!**

**Doctrine**

- Distribution
- Deployment
- Movement
- Sustainment
- Joint Vision 2020

**Organization**

- Army Sustainment Command
- Joint Staff
- Joint Chiefs of Staff
- Department of Defense

**Training**

- Joint Forces Command
- Joint Staff
- Joint Chiefs of Staff
- Department of Defense

**Material**

- Logistics
- Materiel
- Resources
- Equipment

**Leadership and Education**

- Army Leaders
- Professional Development
- Education

**Personnel**

- Army Officers
- Army Non-Commissioned Officers
- Army Civilians

**Facilities**

- Logistics Centers
- Distribution Centers
- Storage Facilities

---

The Spearhead of Logistics...sustainment excellence with the future.
distribution, and sustainment. Advanced systems will increase speed, capacity, and efficiency. Improved operational effectiveness and efficiency, combined with increasing warfighter confidence in new capabilities, will reduce sustainment requirements and vulnerabilities. Mutual trust, reliance, and interdependence of the services and outside agencies not only achieve this goal but improve interoperability across all warfighting functions and all levels of war.

We need the capabilities to rapidly deploy and distribute forces, equipment, and materiel to Army and Joint Forces operating across the full spectrum of operations anytime, anywhere in support of the National Military Strategy and in coordination with our mission partners. To achieve these capabilities, we must transform into an agile, adaptive institution that serves as the main effort and key integrator for the Army’s development of a unified distribution network operating in a JIM environment. By leveraging business intelligence, digital technology, and social-networking tools in all we do, the Transportation Corps will work with our mission partners at CASCOM, across our Army, and across the joint formation. We are inherently a joint operation—nothing happens until something moves!

To promulgate our corps into the future across the lines of effort portrayed in our Strategic Blueprint (see chart on page 4, top), the COT Focus Areas shown in the chart on page 4, bottom, make up our main thrusts of activity. Many initiatives are embedded as sub-bullets to these broad focus areas. The chart on page 7 amplifies those initiatives that are either completed or significantly in motion over the past year. All told, this is a participatory world we live in. We need your engagement and participation to help us shape it.

O n 31 July 1942, the Department of War recognized the need for a single manager of Army transportation and created a new branch, the Transportation Corps. Since the Revolutionary War, Army transportation had evolved through two branches, the Quartermaster Corps and the Corps of Engineers. The demands of World War I made the Army first realize its need for a single manager for military transportation services. So began an evolution over the next quarter century that culminated in the birth of the Transportation Corps during the opening months of World War II.

Transportation as a function has existed from the beginning of American military history. The Quarter-master Department was long responsible for wagon and horse transportation, except for harbortraft; responsibility for harbortraft resided with the Corps of Engineers since it had the mission of maintaining ports. When the Army adopted the use of military railroads during the Civil War, that function also fell to the Corps of Engineers since it was responsible for repairing tracks and building bridges.

During the 19th century, the Army was too small to require much specialization. So transportation requirements during peacetime could be managed by the Quartermaster Department. During war, however, the need for military transportation habitually expanded into organizations that managed the different modes, such as wagons, boats, and railroads. [The Quartermaster, Subsistence, and Pay Departments were consolidated in 1912 to create the Quartermaster Corps.]

Evolving Organization for Transportation

Starting with the invasion of Cuba in 1898, all subsequent wars of the United States were fought overseas. The debacle of uploading V Corps at Tampa, Florida, and offloading men, animals, and supplies at Daiquiri and Siboney, Cuba, taught the Army that it could not afford failure at ports and that it needed professionals who knew how to manage ports of embarkation and debarkation, deliver supplies over bare beaches, and manage the Army’s seagoing fleet of transports.

As a result, the War Department created the Army Transportation Service (ATS) under the Quartermaster Department on 18 August 1899. The ATS became the genesis of the future Transportation Corps and would evolve through a number of organizational name changes to become the current Military Surface Deployment and Distribution Command (SDDC).

On 11 July 1918, the American Expeditionary Forces, by General Orders No. 114, formed the Motor Transport Corps to manage the Army’s new fleet of trucks during World War I. So in this war, the Quartermaster Corps managed wheeled vehicles, stevedores, and the Army’s deep-water fleet, while the Corps of Engineers had responsibility for railroads and harbortraft.

The Army soon realized that it needed one organization to manage the increasing modes of transportation. On 11 March 1919, the Secretary of War issued General Orders No. 54, creating the Transportation Service by merging the Embarkation Service and the Inland Traffic Service. On 9 April 1919, the Purchase, Storage, and Traffic Division of the General Staff subsequently directed (through Supply Circular No. 283) the consolidation of all transportation activities, except those of the Motor Transport Corps, into the Transportation Service.

The Transportation Service, like the Motor Transport Corps, created its own branch insignia as one more step toward functional autonomy. It was becoming evident that...
the increasing size of the Army and the diverse modes of transportation would require the specialization of a separate branch to manage this function. In 1919, the future Transportation Service was off to a good start when the Secretary of War appointed Brigadier General Frank T. Hines as the first Chief of Transportation. He advocated the need for centralized traffic management solutions, such as the Red Ball and later truck expresses, helped sustain the rapid breakout of the First and Third Armies from Normandy. Transportation assets became the lifeline of the advance into the very heart of Germany.

In the South Pacific, the Transportation Corps created a small ships section to provide General Douglas MacArthur with the amphibious capability to begin taking back the island of New Guinea from the Japanese. During the war, the Transportation Corps moved over 30 million Soldiers in the United States and 7 million overseas, along with 126 million tons of cargo. Not only did the Transportation Corps have to support the Army on several fronts, but it also had to sustain its Allies in their fights, resulting in the two longest lines of communication during World War II: the Persian Corridor and the Ledo Road. The Persian Corridor was a 636-mile road and later railroad from Khorramshahr to Kavir in the Baltic Sea that was used to supply military forces in its fight against Germany. The Ledo Road extended over 1,079 miles from Assam, India, through mountains and jungle to Kunming, China, to provide a lifeline to the Nationalist Chinese fighting against the Japanese.

The two greatest military powers on the earth at that time, Japan and Germany, marveled at the speed and volume with which the United States could produce, mobilize, and project its power around the globe. America’s enemies were literally overwhelmed by military and materiel across bare beaches until the ports were secure. The military campaign in the Mediterranean theater was focused on securing the deep-draft port of Oran in Algeria and then pushing by rail across North Africa to Tunisia, where combat power could be loaded at the Port of Bizerte for landings in Sicily, Italy, and finally, southern France.

The Army conducted more amphibious operations than the Marine Corps during World War II, and the D-Day landing in Normandy would remain the largest amphibious operation of the war. The Normandy landing sites would sustain three armies until the First Army took the deep-draft port of Cherbourg and reestablished it a month later. This became the standard for over-the-beach operations. However, the success of the Army port units was diminished by the U.S. Air Force’s destruction of railroads leading out of the Cotentin Peninsula. Innovative traffic management solutions, such as the Red Ball and later truck expresses, helped sustain the rapid breakout of the First and Third Armies from Normandy.

Transportation assets became the lifeline of the advance into the very heart of Germany.

In the South Pacific, the Transportation Corps created a small ships section to provide General Douglas MacArthur with the amphibious capability to begin taking back the island of New Guinea from the Japanese (Transportation Corps) even participated in the Marine landings on the island of Iwo Jima. During the war, the Transportation Corps moved over 30 million Soldiers in the United States and 7 million overseas, along with 126 million tons of cargo. Not only did the Transportation Corps have to support the Army on several fronts, but it also had to sustain its Allies in their fights, resulting in the two longest lines of communication during World War II: the Persian Corridor in Iran and the Ledo Road through Burma. The Persian Corridor was a 636-mile road and later railroad from Khorramshahr to Kavir in the Baltic Sea that was used to supply military forces in its fight against Germany. The Ledo Road extended over 1,079 miles from Assam, India, through mountains and jungle to Kunming, China, to provide a lifeline to the Nationalist Chinese fighting against the Japanese. The two greatest military powers on the earth at that time, Japan and Germany, marveled at the speed and volume with which the United States could produce, mobilize, and project its power around the globe. America’s enemies were literally overwhelmed by military and materiel across bare beaches until the ports were secure. The military campaign in the Mediterranean theater was focused on securing the deep-draft port of Oran in Algeria and then pushing by rail across North Africa to Tunisia, where combat power could be loaded at the Port of Bizerte for landings in Sicily, Italy, and finally, southern France.

The Army conducted more amphibious operations than the Marine Corps during World War II, and the D-Day landing in Normandy would remain the largest amphibious operation of the war. The Normandy landing sites would sustain three armies until the First Army took the deep-draft port of Cherbourg and reestablished it a month later. This became the standard for over-the-beach operations. However, the success of the Army port units was diminished by the U.S. Air Force’s destruction of railroads leading out of the Cotentin Peninsula. Innovative traffic management solutions, such as the Red Ball and later truck expresses, helped sustain the rapid breakout of the First and Third Armies from Normandy. Transportation assets became the lifeline of the advance into the very heart of Germany.

In the South Pacific, the Transportation Corps created a small ships section to provide General Douglas MacArthur with the amphibious capability to begin taking back the island of New Guinea from the Japanese. During the war, the Transportation Corps moved over 30 million Soldiers in the United States and 7 million overseas, along with 126 million tons of cargo. Not only did the Transportation Corps have to support the Army on several fronts, but it also had to sustain its Allies in their fights, resulting in the two longest lines of communication during World War II: the Persian Corridor in Iran and the Ledo Road through Burma. The Persian Corridor was a 636-mile road and later railroad from Khorramshahr to Kavir in the Baltic Sea that was used to supply military forces in its fight against Germany. The Ledo Road extended over 1,079 miles from Assam, India, through mountains and jungle to Kunming, China, to provide a lifeline to the Nationalist Chinese fighting against the Japanese.

The two greatest military powers on the earth at that time, Japan and Germany, marveled at the speed and volume with which the United States could produce, mobilize, and project its power around the globe. America’s enemies were literally overwhelmed by military and materiel across bare beaches until the ports were secure. The military campaign in the Mediterranean theater was focused on securing the deep-draft port of Oran in Algeria and then pushing by rail across North Africa to Tunisia, where combat power could be loaded at the Port of Bizerte for landings in Sicily, Italy, and finally, southern France.

The Army conducted more amphibious operations than the Marine Corps during World War II, and the D-Day landing in Normandy would remain the largest amphibious operation of the war. The Normandy landing sites would sustain three armies until the First Army took the deep-draft port of Cherbourg and reestablished it a month later. This became the standard for over-the-beach operations. However, the success of the Army port units was diminished by the U.S. Air Force’s destruction of railroads leading out of the Cotentin Peninsula. Innovative traffic management solutions, such as the Red Ball and later truck expresses, helped sustain the rapid breakout of the First and Third Armies from Normandy. Transportation assets became the lifeline of the advance into the very heart of Germany.

In the South Pacific, the Transportation Corps created a small ships section to provide General Douglas MacArthur with the amphibious capability to begin taking back the island of New Guinea from the Japanese. During the war, the Transportation Corps moved over 30 million Soldiers in the United States and 7 million overseas, along with 126 million tons of cargo. Not only did the Transportation Corps have to support the Army on several fronts, but it also had to sustain its Allies in their fights, resulting in the two longest lines of communication during World War II: the Persian Corridor in Iran and the Ledo Road through Burma. The Persian Corridor was a 636-mile road and later railroad from Khorramshahr to Kavir in the Baltic Sea that was used to supply military forces in its fight against Germany. The Ledo Road extended over 1,079 miles from Assam, India, through mountains and jungle to Kunming, China, to provide a lifeline to the Nationalist Chinese fighting against the Japanese.

The two greatest military powers on the earth at that time, Japan and Germany, marveled at the speed and volume with which the United States could produce, mobilize, and project its power around the globe. America’s enemies were literally overwhelmed by military and materiel across bare beaches until the ports were secure. The military campaign in the Mediterranean theater was focused on securing the deep-draft port of Oran in Algeria and then pushing by rail across North Africa to Tunisia, where combat power could be loaded at the Port of Bizerte for landings in Sicily, Italy, and finally, southern France.

The Army conducted more amphibious operations than the Marine Corps during World War II, and the D-Day landing in Normandy would remain the largest amphibious operation of the war. The Normandy landing sites would sustain three armies until the First Army took the deep-draft port of Cherbourg and reestablished it a month later. This became the standard for over-the-beach operations. However, the success of the Army port units was diminished by the U.S. Air Force’s destruction of railroads leading out of the Cotentin Peninsula. Innovative traffic management solutions, such as the Red Ball and later truck expresses, helped sustain the rapid breakout of the First and Third Armies from Normandy. Transportation assets became the lifeline of the advance into the very heart of Germany.

In the South Pacific, the Transportation Corps created a small ships section to provide General Douglas MacArthur with the amphibious capability to begin taking back the island of New Guinea from the Japanese. During the war, the Transportation Corps moved over 30 million Soldiers in the United States and 7 million overseas, along with 126 million tons of cargo. Not only did the Transportation Corps have to support the Army on several fronts, but it also had to sustain its Allies in their fights, resulting in the two longest lines of communication during World War II: the Persian Corridor in Iran and the Ledo Road through Burma. The Persian Corridor was a 636-mile road and later railroad from Khorramshahr to Kavir in the Baltic Sea that was used to supply military forces in its fight against Germany. The Ledo Road extended over 1,079 miles from Assam, India, through mountains and jungle to Kunming, China, to provide a lifeline to the Nationalist Chinese fighting against the Japanese.

The two greatest military powers on the earth at that time, Japan and Germany, marveled at the speed and volume with which the United States could produce, mobilize, and project its power around the globe. America’s enemies were literally overwhelmed by military and
tary might transported from the factory to the foxhole courtesy of the Transportation Corps.

Post-War Developments

Riding on this success, the War Department directed the Quartermaster Corps to transfer the functions and responsibilities of truck and aviation units to the Transportation Corps by General Orders No. 77 on 24 July 1946. The same year, the Transportation School consolidated all training, except for drivers, at Fort Eustis, Virginia, because of its intermodal rail and sea capability. In 1950, the Army turned over its deep-draft ships to the Military Sealift Command, so the Army no longer had the largest navy in the United States military.

That same year, Brigadier General William B. Bunker convinced the Chief of Transportation, Major General Frank S. Besson, Jr., of the importance of helicopters in logistics. As a result, in May the Army approved the organization of five helicopter companies with the first, the 6th Transportation Company (Helicopter), activated in July 1952.

Meanwhile, the Soviet Union had established control over Eastern Europe behind the Iron Curtain and detonated its first atomic bomb in 1949, and Communists had seized power in China. The first military showdown of the resulting Cold War between the Communists and the free world began when the Communists of North Korea invaded South Korea on 25 June 1950.

Korean War

The first objective of the American intervention in the Korean War was to stabilize the Pusan Perimeter, where retreating U.S. forces had been trapped at the southern tip of the Korean peninsula by the surging North Koreans. The deep-draft port of Pusan provided the critical link in the lifeline of men and material shipped from Japan. The Far East Command quickly established the Pusan Base Command, and the 3057th Provisional Port Company began operations immediately, discharging 309,000 tons of cargo in July 1950. Later that year, the 7th Transportation Major Port (later redesignated the 7th Transportation Group) assumed control of Pusan and discharged over a million tons of cargo a month. By the end of 1952, the 7th Port celebrated its movement of 10 million tons of cargo through Pusan.

By the time hostilities ended on 27 July 1953, the Port of Pusan had discharged three times the cargo of all the other Korean ports combined. The Transportation Corps likewise supported the breakouts from the ports of Inchon and Wonsan that drove the North Koreans all the way back across the Chinese border. The subsequent Chinese intervention cut off United Nations forces, requiring the trucks of the 52d and 55th Transportation Battalions to rescue the 1st Marine Division and the 2d Infantry Division by fighting through gauntlets of enemy ambushes. This action resulted in the branch’s first Medal of Honor winner, Lieutenant Colonel John U.D. Page.

Cold War Growth

In 1954, the Engineer Corps turned its landing craft over to the Transportation Corps, making the Transportation Corps responsible for all modes of Army transportation. Coincidentally, the Navy lifted the size limit on Army watercraft, allowing the Army to build landing craft utility (LCUs). This led the Transportation Corps to activate the 159th Boat Battalion.

The Soviet threat against Europe provided the peace-time Army an enemy to plan against. In anticipation of the needs of the Army, the Chief of Transportation directed and championed the development of military transportation. Contingency planners assumed the worst-case scenario, in which the Soviet Union would use its bombers or, worse yet, its nuclear arsenal to destroy the fixed ports in France, thus severing the vital lines of communication at their European end. This contingency required the Army to rely heavily on over-the-beach operations.

The Transportation Corps began an annual New Offshore Discharge Exercise (NODEX), which was held from 1954 until French President Charles de Gaulle ordered the U.S. Army out of his country in 1964. The name of this type of operation was changed to supply-over-the-shore until Soldiers started referring to it by its acronym, the SOB. These operations then became known as logistics-over-the-shore (LOTS).

Because 90 percent of the world’s beaches had too shallow a gradient for Army landing craft to drop
ramps on dry beach, the Transportation Corps at the direction of General Besson invested in a fleet of lighter amphibious resupply cargo (LARC) vessels with 5-, 15-, and 60-ton capacities. Besson would rise to become the Transportation Corps’ first four-star general. The investment in amphibians and watercraft paid big dividends in the next war.

Vietnam War

The Vietnam War began as an adviser war, with Transportation Corps helicopter companies arriving as the first intact units as early as December 1961. When the U.S. Army assumed a greater ground role in the war in the summer of 1965, Transportation units were among the first to deploy to Vietnam in order to bring in the massive buildup in troops. To take the pressure off South Vietnam’s one commercial port at Saigon while also shortening the ground lines of communication, the Transportation Corps built several subports at Qui Nhon, Cam Rahn Bay, and Newport, along with numerous LOTS sites along the coast. Because of the long coastline of the country and its well-developed system of canals and rivers, Army watercraft delivered the vast majority of cargo. To provide self-protection against the threat of convoy ambushes, the truck companies built gun trucks. With truckdrivers fighting the war, the Transportation Corps earned two more Medals of Honor, which were awarded to Specialist 4 Larry Dahl and Sergeant William Seay.

The first step toward the separation of aviation from the Transportation Corps came in 1965 with the creation of combat aviation units. During the war, the Transportation Corps retained aviation maintenance units until Aviation became its own branch in 1983.

Post-Vietnam Developments

In the aftermath of the Vietnam War, the Army refocused on holding back a possible Soviet attack through the Fulda Gap in Germany. However, the joint invasion of the tiny Caribbean island of Grenada in 1983 required the Armed Forces to revamp their doctrine and organization. One lesson learned was the need for a single manager of strategic transportation. In response, the U.S. Transportation Command was created in 1987 to provide command and control for the Military Traffic Management Command (MTMC—later SDDC), the Military Sealift Command, and the Air Mobility Command. At the same time, the Transportation Corps orga-
nized movement control battalions and transporta-
tion movement control agencies (TMCAs) to manage
movements at the theater level. In another milestone,
the Transportation Corps was inducted into the U.S.
Army Regimental System on 31 July 1986.

During the invasion of Panama in 1989, the Trans-
portation Corps operated the two airports vital to
the flow of units into that theater. From that conflict
onward, the Transportation Corps would have to open
and operate ports in many contingencies.

Global Deployments
In 1990, the Army conducted the largest deploy-
ment (Third Army, VII Corps, and XVIII Airborne
Corps) since World War II in response to the Iraqi inva-
sion of Kuwait. The 7th and 32d Transportation Groups
played a critical role in opening up the seaports and
building up sufficient forces and mountains of supplies
in Saudi Arabia in time to stem any further Iraqi ag-
gression. They then secretly moved the XVIII Airborne
Corps laterally to the border of Iraq while still deliver-
ing supplies for the drive into Kuwait and Iraq.

Following the first Gulf War, the 7th Transportation Group opened
ports in Somalia in 1992 and Haiti in 1994, and the 37th Transpor-
tation Group moved and sustained combat troops in Bosnia in 1995
and Kosovo in 1999. Transports also supported disaster and hu-
manitarian relief operations around the globe.

With the start of the Global War
on Terrorism in 2001, the Transpor-
tation Corps operated the airports of
debarkation in Afghanistan and
the Horn of Africa. But the size of the ground inva-
sion of Iraq that began in March 2003 required the 7th
Transportation Group and the 1st TMCA to open the
seaports and airports in Kuwait. After the quick fall of
Baghdad, truckdrivers once again became combat
Soldiers and revived the gun truck concept abandoned
after the Vietnam War to provide their own security
along an 800-mile supply line.

Transformation
While the war in Iraq clearly demonstrated the need
for a transportation group headquarters to manage up
to four transportation battalions clearing the ports and
pushing materiel out of Kuwait, the Army underwent a
transformation into a smaller, leaner, and more modular
force. The brigade combat team became the focus of
the new structure instead of divisions, and echelons-
above-corps logistics organizations were replaced by
multifunctional sustainment brigades. This began to
reverse the progress made since World War II.

In 2004, MTMC became the multifunctional SDDC.
In 2007, SDDC became responsible for end-to-end
deployments and created deployment and distribu-
tion support teams in Bagram, Afghanistan, and Camp
Anacosta in Balad, Iraq. SDDC began to look beyond
the sea ports of embarkation.

The BRAC (base closure and realignment) 2005 de-
cisions combined related Army schools. This resulted
in moving part of the Transportation School to Fort
Lee, Virginia, to join the Quartermaster and Ordnance
Schools in 2010; this divided the school, with part
remaining at Fort Eustis.

Upon returning from its second deployment to
Kuwait, the 7th Transportation Group reorganized into
a sustainment brigade. The Army thus lost its only
theater port-opening brigade-level headquarters—the
effect of which became evident in 2010 when
the XVIII
Airborne Corps
had to conduct
disaster relief
operations after
the earthquake
in Haiti. SDDC
was ready to
step up to the
challenge, racing
the 7th Sustain-
ment Brigade to
see which orga-
nization could

Luminaries and railcars
are parked at a rail yard
in preparation for being shipped
to the European mainland after
the D-Day invasion of France.

U.S. and Korean stevedores load lumber recently brought in by ship onto Army railcars in South Korea.

Regimental Chief Warrant Officers

1. Chief Warrant Officer 5 Chester L. Williams
   July 2004–July 2007
2. Chief Warrant Officer 5 Michael L. Keith
   July 2007–April 2011
3. Chief Warrant Officer 5 Thomas J. Wilson
   April 2011–Present

Regimental Command Sergeants Major

1. Command Sergeant Major John Uphoruch
   July 1986–March 1987
2. Command Sergeant Major D.L. “Denny” Gaines
   March 1987–April 1990
3. Command Sergeant Major Larry H. Crim
   April 1990–August 1992
4. Command Sergeant Major John C. Daniels
5. Command Sergeant Major Howard V. Rayman
   July 1994–August 1996
6. Command Sergeant Major Donald H. Shoppe
   August 1996–October 1999
7. Command Sergeant Major Stephen P. Raschke, Sr.
   October 1999–July 2002
8. Command Sergeant Major Sam Adam, I. Lyons
   July 2002–January 2005
10. Command Sergeant Major Allen A. Mefford
    December 2008–March 2012
11. Command Sergeant Major Allen B. Mefford
    March 2012–Present

Locomotives and railcars
are parked at a rail yard
in Wales in March 1944
in preparation for being shipped
to the European mainland after
the D-Day invasion of France.
In a period of competing resources, the Army desperately held on to brigade combat teams at the expense of logistics units. With the recent Total Army Analysis Review, all tables of organization and equipment transportation battalion headquarters are slated for inactivation except for two terminal battalions (which provide the Army’s remaining JLOTS capability) and five movement control battalions. The Army has given up all of its truck battalion headquarters—a capability that each war demonstrator is greatly needed.

The Transportation Corps’ primary function is becoming movement control, which it was created to perform during World War II. SDDC will have responsibility for sea ports of debarkation and embarkation, JLOTS, and Army watercraft, as did its predecessor, the ATS, after it was created in 1899. The loss of functional Transportation Corps companies creates a greater reliance on civilian contractors and results in slowly civilianizing the logistics function, which was militarized in 1912.

The Army has always had a need for military transportation but has managed it in different ways. The lessons of history have taught the need for functional experts and singular management. But as military resources decline, these functional experts will need to be more innovative in how they accomplish future missions.

Richard E. (Rich) Killblane has been the command historian for the Army Transportation Corps at Fort Eustis, Virginia, since 2000. He holds a bachelor’s degree from the United States Military Academy and an M.A. degree in history from the University of San Diego. He served as an officer in the Infantry and Special Forces and is a veteran of Central American countering insurgence operations and Operation Just Cause in Panama. His published books include The Filthy Thirteen, Monitoring and Leading, and Circle the Wagons: The History of US Army Convoy Security.

The Army has always had a need for military transportation but has managed it in different ways. The lessons of history have taught the need for functional experts and singular management. But as military resources decline, these functional experts will need to be more innovative in how they accomplish future missions.

Richard E. (Rich) Killblane has been the command historian for the Army Transportation Corps at Fort Eustis, Virginia, since 2000. He holds a bachelor’s degree from the United States Military Academy and an M.A. degree in history from the University of San Diego. He served as an officer in the Infantry and Special Forces and is a veteran of Central American countering insurgence operations and Operation Just Cause in Panama. His published books include The Filthy Thirteen, Monitoring and Leading, and Circle the Wagons: The History of US Army Convoy Security.

The Army has always had a need for military transportation but has managed it in different ways. The lessons of history have taught the need for functional experts and singular management. But as military resources decline, these functional experts will need to be more innovative in how they accomplish future missions.

Richard E. (Rich) Killblane has been the command historian for the Army Transportation Corps at Fort Eustis, Virginia, since 2000. He holds a bachelor’s degree from the United States Military Academy and an M.A. degree in history from the University of San Diego. He served as an officer in the Infantry and Special Forces and is a veteran of Central American countering insurgence operations and Operation Just Cause in Panama. His published books include The Filthy Thirteen, Monitoring and Leading, and Circle the Wagons: The History of US Army Convoy Security.

In February, most of the Army’s Active component sustainment brigade commanders met under the mentorship of former sustainment brigade commanders and logistics general officers to discuss field-level sustainment functions and capabilities, leverage lessons learned from the previous 8 years of sustainment brigade operations, and make recommendations for the future to the greater sustainment community.

This opportunity to review and refine sustainment doctrine was a collaborative effort of leaders with extensive experience in both the generating and operating forces. The introspection brought to light a number of challenges on the path ahead but, most importantly, set the conditions for an indepth discussion of structures, roles, responsibilities, authorities, funding, materiel management, and support operations.

The general consensus of those attending the conference was that sustainment brigades were developed in theory, put into action, and proved to be highly successful operating within the initial doctrinal limits. The Army’s task now is to capitalize on the lessons learned during the past 10 years and fully assess sustainment brigade doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) in order to truly support future unified land operations.

Simplifying field-level sustainment through a single organizational construct that collects requirements and either satisfies them or coordinates for the needed resources and solutions across the sustainment spectrum is the next progressive step in our evolution. Leveraging sustainment brigade and Army field support brigade (AFSB) relationships to meet supported commanders’ requirements must be documented and developed as doctrine. Further, the roles, responsibilities, processes, and functions must be realigned to ensure that sustainment optimization occurs.

Transformation Challenges

The Army’s sustainment community transformed very quickly in response to a rapidly changing operational environment. The Army of Excellence (AOE) sustainment community had to transform from a structure of corps support commands, corps support groups (CSGs), division support commands, division support groups (DSCOMs), and main and forward support battalions into a structure of enterprise-focused sustainment commands, distribution-centric sustainment

brigades, and robust brigade support battalions (BSBs). The transformation included modularization to allow us to send only the elements that are needed for a specific mission rather than entire organizations, thus achieving tailorable logistics.

Eight years after transforming, the sustainment community continues to provide unparalleled support to the warfighter. However, echeloned support from the sustainment brigade to the theater sustainment command (TSC) and related doctrine have created both intended and unintended consequences. There is confusion as to who is the “single face of logistics,” especially at echelons above brigade (EAB), and which unit performs what specific sustainment functions. Acknowledging in doctrine that the sustainment brigade is the “single face of logistics to the warfighter” and echelons above division (EAD) enabling units will set clear conditions for mission, function, and responsibility.

The intent of transformation and modularization was to gain efficiencies by streamlining sustainment structure and operations from the tactical to the strategic levels of operations. The reality is that sustainment transformed into two parallel lines of operational support. The BSBs, sustainment brigades, expeditionary sustainment commands, and TSC’s form an operational line that runs parallel to the enterprise line conducted under the umbrella of the Army Materiel Command (which includes the life-cycle management commands, the Army Sustainment Command, and the AFSBs).

The function of the operational line is to manage sustainment and distribution from the theater entry point to the brigade combat team (BCT) and EAD units. The function of the enterprise line is to manage acquisition logistics and technology from the tactical through the strategic levels. The two lines only meet at the strategic level; they do not meet at the point of need. But the opportunity exists to meet structurally or doctrinally at the field level of logistics.

Proposed Changes

What follows are some proposed sustainment brigade theoretical and doctrinal changes. These proposals are based on the conclusions of the AOE and the experiences of sustainment leaders. (See chart on page 20.) At times, the proposed changes reach back to AOE doctrine in order to

Synchronizing Field and Sustainment Support: Roles and Responsibilities After 10 Years of War

By Colonel Todd A. Heussner, Lieutenant Colonel Geoffrey C. DeTrigo, and Lieutenant Colonel Craig M. Short

July-August 2012
illustrate, clarify, or translate concepts for recommended changes or current doctrine enterprise. This is because AOE sus-

tainment offers context and benchmarks where gaps and

friction points resulted from transformation.

Synchronizer of Sustainment

Army doctrine should recognize that the sustainment brigade is the single entry point and the sustainment bri-


gade commands the lead integrator and synchronizer of sustainment at the field level of logistics both for the
division and EAD units.

Eight years of overseas contingency and installation op-
erations highlighted that the sustainment brigade, like the AOE DISCOM and CSG, is the organization that
planners and operators look to for successful BCT and EAD support. In the division commander look to the sustainment brigade commander as the one stop for EAB and EAD support integration.

A sustainment brigade commander provides sustain-
tainment oversight and support operations management as well as mentorship to all sustainers across his area of respon-
sibility (AOR). The sustainment brigade is responsible for
achieve or facilitate sustainment at the division and installation level.

The sustainment brigade commander synchronizes combat sustainment support (CSSB) operations in support of EAD operations and BSB operations in support of the BCT and coordinates with the division G-4 to recommend plans, policies, and procedures to the division commander. The sustainment brigade commander syn-
chronizes with the Army field support battalion (AFSBn) commander and with the installation director of logistics to coordinate sustainment-level enterprise support.

Sustainment Operations Center

Army doctrine should recognize that the sustainment brigade’s sustainment operations center (SOC), like each installation’s logistics support plan, is the place where support gaps are identified and a synchronized sustainment plan is developed for the division and the installation within the field level of logistics.

In the AOE Army, sustainment doctrine recognized the DIS-
COM and CSG commanders synchronized sustainment through the materiel management centers (MMCs) in the
division and corps support areas. The sustainment brigade SOC, where established, is accomplishing these functions now. The SOC is the nexus where the two parallel lines of sustainment—operational and enterprise—can meet within the field level of sustainment. It is the one place where the BCT warfighter and other EAB units can actu-
ally engage the single face of sustainment.

The SOC takes all the expertise and depth that reside in the sustainment brigade and synchronizes those functions

with representatives of the installation support team, the sustainment-level support team, and the division G-4 to provide that single stop for the BCTs, EAB tenant units, and other units transiting the AOR that require support and the enterprise sustainers who want to support them.

The SOC in effect lowers the walls and enables a fusion of communication and coordination within the field level of logistics.

The doctrine that governed the sustainment of the AOE Army was clearly understood. The BCT’s administra-
tion and logistics operations center (ALOC) and the division rear were where sustainment synchronization occurred and the warfighter worked on logistics issues. The AOE division rear became highly efficient and streamlined than the AOE division rear because only one sustainment brigade synchronizes sustainment for all units within a division’s operating environment as opposed to a DISCOM and CSG (formally known as ASCOM, unit sustainment for divisional and corps units, respectively. This single mission command is more effective and efficient and supports the intent of re-
ducing logistics fratricide and excess. This advantage will become increasingly important as budgets shrink.

AFSBn and SOC Colocation

Army doctrine should recognize that the AFSBn and sustainment brigade should collocate within the SOC to ensure that sustainment is synchronized at one location within the field level of logistics.

With operations over in Iraq and transitioning to security force advisory operations in Afghanistan, the time is right to set conditions for the force. Army Force Generation (ArFORGEN) is a tested process, but it will be redefined by operational realities and fiscal constraints. We can mitigate fiscal constraints while improving better daily support to our teammates and still be prepared to surge if needed by collocating AFSBn and sustainment brigade operations.

Like doctrinal recognition that the SOC is the one place where sustainment synchronization occurs, collocation of the AFSBn within the SOC requires no changes to com-
mmand relationships. Efficiency is gained through proxim-
ty, fusion, and purpose; a unified sustainment front is achieved at no cost to senior commanders.

With sustainment-level and field-level teams connected, each sustainment commander can leverage his organiza-
tion’s capabilities for maximum support. The AFSBn can leverage sustainment brigade’s depth of expertise, capabilities, and established relationships with supported units to help locally manage the ArFORGEN process.

The AFSBn—sustainment brigade relationship provides a model example of a responsive logistics and common operating picture installation wide during both garrison and wartime operations. The power of both organizations can be brought to bear in order to ensure that absolute clarity and unity of effort is achieved when managing the Army Forces Command (FORSCOM) Army reset common operating picture.

AFSBn Role During Brigade Deployment

Army doctrine should recognize that when the sustain-
ment brigade deploys, the AFSBn commander, as a key

member of the SOC team, assumes responsibility for not only installation enterprise but also for install-
tation-level sustainment operations.

The AFSBn commander, augmented by a 22-Soldier contingency active duty for operational support (Co-
ADoS) team, the sustainment brigade’s rear detachment, and subordinate headquarters, continues supporting opera-
tions. In the past, when sustainment brigades deployed, support functions were typically migrated to differ-
ent to different installation elements. Where a supported unit previously would coordinate with just the sustainment
brigade for most of its support requirements after the func-
tions migrated, unit sustainment teams and supporting units with numerous touch points in many different locations.

By doctrinally recognizing the SOC and AFSBn coloca-
tion, future migration of functions becomes unnecessary. The supported unit will continue to go to the SOC with operational sustainment requests. Deployments will have very little impact on systems and processes.

Local Sustainment and Distribution Manager

Army doctrine should recognize that the sustainment

brigade functions as the commodity, maintenance, and dis-
tribution manager for all sustainment requests, contingencies (to include deployment support), and support of installation operations.

Given the doctrinal recognition of the SOC and the AFSBn colocation, the sustainment brigade commander can allocate a tremendous amount of resources toward these management functions. We can again look back at AOE sustainment doctrine and recognize that the doctrinal DISCOM and CSG MMC tactics, techniques, and proce-
dures (TTP) were developed to manage material and main-
tenance at the local level continue to provide the founda-
tion and building blocks of future DOTMLPF changes.

As we dust off old systems like the materiel manage-
ment review, review and analysis, overall routing identi-
fier code geographical management (to include manager review file functions), and, more importantly, manage-
ment across a divisional operating environment with an installation-wide logistics common operating picture, the sustainment brigade is the logical way to the requirement to provide responsive answers to both the division commander and the sustainment level of logistics.

CONUS Area of Responsibility Alignment

Regional AORs in the continental United States (CO-
US) should be aligned so that each sustainment brigade and its colocated AFSBn support the same warfighter.

With the previous five recommendations, we have seen a doctrinal drive to bring both the operational and enterprise sustainment lines of effort in order to achieve efficiencies, provide a unified front, and be more responsi-
ble to both the senior commander and the enterprise

commands. Aligning sustainment brigades and AFSBns to support the same units and geographical areas serves

Sustainment Community Leaders Conference Conclusions

In February, a group of current and slated sustain-
ment brigade commanders met under the mentorship of former sustainment brigade commanders, logistics

general officers, and others offering a cross-section of Army sustainment experience to compare theory,

practice, and doctrine over the 8 years of sustainment brigade operations in Iraq, Afghanistan, and garrison environments. At the conclusion of their Febru-
ary conference, the current and slated sustainment brigade commanders and logistics general officers arrived at several conclusions regarding sustainment
brigade doctrine, organization, training, material, and

leader development:

1. Recognize in doctrine that the sustainment brigade is the principal sustainment echelon to the tacti-
cal warfighter (brigade support battalions, brigade combat teams, division, and other echelons-above-
brigade units) for the field level of logistics.

2. Recognize in doctrine that the sustainment brigade sustainment operations center (SOC) is the single

entry point for sustainment integration.

3. Recognize in doctrine that the Army field sup-
port battalion (AFSBn) collocates within the SOC, where possible, to ensure that there is a “single
face” for warfighter support.

4. Recognize in doctrine that the AFSBn assumes
mission command of garrison SOC operations when the sustainment brigade deploys.

5. Recognize in doctrine that the sustainment brigade functions as the sustainment and distribution
manager for the locally supported field level of logistics.

6. Align regional areas of responsibility in the conti-
nental United States so that both the sustainment
brigade and its colocated AFSBn support the same
warfighters.

7. Align each supported division with its habitual
sustainment brigade, combat support. combat sustainment support battalion and numerous other responsive logistic

training centers and deployment.

8. Train to rapidly deploy with theater-opening capa-
ibilities within 18 hours.

Army Sustainment

July–August 2012
to further strengthen our efficiencies and unity of effort with impact across multiple elements of the DOTMLPF spectrum. An example of where efficiency and unity of effort could be improved is in cases where the senior commander with training and authority for geographically separated FORSCOM units on a nearby AORs for the AFSBn and sustainment brigade are not in sync. By aligning regional AORs as we do in combat, the AFSBn and the sustainment brigade can work collectively to support those units.

Operational Sustainability Unit Alignment

Within the training aspect of DOTMLPF, operational sustainability units should be aligned for host-unit training, training at combat training centers, and global deployment. As a sustainment community, we have successfully supported contingency on numerous challenges associated with multipurpose unit integration, installation culture, and ARFORGEN synchronization. As we remain both a sustainment force in contact and a force that must begin to reshape, we have the opportunity to deploy as we are aligned at home station: sustainment brigades aligned with subordinate CSSBs and companies aligned with supporting division, all nested with the same TTP, standard operating procedures, and training strategies.

We have the ability to develop an EAB training strategy that allows FORSCOM to facilitate a deliberate way ahead that provides multipurpose units with the ability to train jointly on their road to war. We have the ability to allow sustainment brigades, CSSBs, and companies to train together in support of their supported units at the combat training centers in an environment that is competitive with funded external evaluation.

The 2010 Army White Paper, The Profession of Arms, states, “War is a human event . . . Therefore, it is the development of human knowledge, skills, abilities, and attributes associated with each field of experience that are of importance to the profession.” We can harness this experience by training together on the road to war as we deploy together, fight together, and sustain together.

Sustainment Brigade Deployment Capabilities

Sustainment brigades need to function with the capability to support rapidly deploying units, deploy to an austere environment, openustainment lines of communication, and sustain operations for an established period of time. The strategic realities, economic uncertainties, Army force structure adjustments, and different strategic posture of the 21st century now is the time for the sustainment community to refine, adjust, and adapt to the requirements of the future force. While engaged in two theaters, we have had other quick developing contingencies that challenged the sustainment community to support on time and on target with integrated support.

The AOE model again provides the model for being prepared to execute the former division ready brigade, maintaining equipment in the vehicle-holding areas, and preparing our trained cadre to execute an emergency deployment readiness exercise or actually deploy within 18 hours.

As we draw on the lessons learned from the past, we can also draw on our experience gained in combat during the last decade. We have learned to harness, through contracting, the strength of a partner nation, and we have learned to use joint teaming to sustain our forces under a “one team-one fight concept.” A contracting capability resident in a sustainment brigade would also make the organization that much more capable in combat and in support of installation operations. Contracting capability is an example of organizational change within the DOTMLPF spectrum that was raised during the conference for consideration. We must recognize our capability and mindset in order to meet the challenges of the future and truly be able to sustain full-spectrum operations wherever our Nation needs us.

The purpose of this article is to encourage sustainers to evaluate our doctrinal missions, roles, and functions while we look to the future of our sustainment organizations and the doctrine by which we conduct operations, through synergy at the tactical and installation levels. To that end, what started as a dialog among current, past, and future sustainment brigade commanders has developed into doctrinal and other DOTMLPF insights that will shape future generations, infrastructure, leadership, and organization. The ideas addressed specifically about the doctrine governing the field level of logistics must be refined through discussion with teammates from the Army Materiel Command and the Army Combined Arms Support Command and sustainment Center of Excellence in order to refine and produce doctrine. After 10 years of war and change, we have the experience, the mindset, and the right people to shape the sustainment community through theory and doctrine to sustain the Army into the 21st century.

Colonel Todd A. Heusner is the commander of the 43d Sustainment Brigade at Fort Carson, Colorado. Lieutenant Colonel Geoffrey C. DeTingo is attending the Advanced Operational Arts Studies Fellowship at Fort Leavenworth, Kansas. He previously served as the deputy commanding officer of the 43d Sustainment Brigade. Lieutenant Colonel Craig M. Short is the commander of Hawthorne Army Depot, Nevada. He previously served as the chief of plans of the 43d Sustainment Brigade.

B y C A P T A I N E R I K J . A N T H E S

The forum also would allow lieutenants to candidly communicate with their experienced colleagues outside of the high-stress environment of the operational force. This type of mentorship would also provide junior leaders with a comprehensive understanding of the roles of senior leaders and an opportunity to plan career progression. Lastly, this type of forum would help improve leadership techniques among field-grade and senior company-grade officers by exposing them to the strengths and weaknesses of groups of new logistics officers. Mentors would be better prepared to manage expectations and tailor future training to strengthen junior officers in their units. Although this is not a panacea for toxic leadership, any pragmatic approach that wards off destructive and ineffective leadership traits is worth exploring.

The fact facing the three branches of the Logistics Corps is that lieutenants, whether assessed as Quartermaster, Ordnance, or Transportation officers, may serve in positions and roles not addressed in their respective branch’s BOLC curriculum. Distributing mentors from different fields of professional and personal experience and expertise to lead small groups of BOLC students is a mechanism that ALU could use to broaden the education of these officers from the start. By effectively increasing the knowledge base of our junior officers, we can better prepare them to assume any logistics role where they arrive at their first units. Professional development and personal mentorship of officers has largely become something of a lost art as a result of the rigorous training requirements and deployment cycles over the last decade. Providing mentoring officers with officer professional development opportunities will allow them to hone their professional development skills and show junior officers “what right looks like” in the schoolhouse.

This small, budget-friendly investment can reap dividends for our force by sending the best prepared lieutenants and senior officers to their next duty assignments fully prepared and capable of accomplishing the mission together. By emphasizing such a program, the Logistics Corps will send a message that it is serious about the future of its leaders and ready to spearhead a necessary cultural change for the Army.

Captain Erik J. Anthes is assigned to the 1st Heavy Brigade Combat Team, 1st Infantry Division, at Fort Riley, Kansas. He holds a bachelor’s degree in political science from the University of Central Missouri and is a graduate of the Combined Logistics Captains Career Course.

Captains Erik J. Anthes is assigned to the 1st Heavy Brigade Combat Team, 1st Infantry Division, at Fort Riley, Kansas. He holds a bachelor’s degree in political science from the University of Central Missouri and is a graduate of the Combined Logistics Captains Career Course.
The last decade has seen extraordinary contracting activity in support of contingency operations. Contract support has been critical to operations in Iraq and Afghanistan and has been a significant part of operations in other nations such as Haiti and Japan. At one time, in the U.S. Central Command (CENTCOM) areas of responsibility (AORs), the ratio of contractor to military personnel was 1-to-1. Every deployed Soldier, Marine, Sailor, and Airman had a contractor counterpart. The cost for this level of contract support will not be finalized for years to come, but the number will be large.

Numerous inquiries and investigations have been made into contracting practices, irregularities, and illegal activities over the last decade. One such effort was the Gansler Commission, named after its head, former Undersecretary of Defense for Acquisition, Technology, and Logistics Dr. Jacques Gansler. The Gansler Commission was appointed by Secretary of the Army Pete Geren to review contracting linked to the war effort. Although the commission made many recommendations in its final report, which was released in November 2007, I will focus just on one area: training.

The Gansler Commission recommended that the Government provide training and tools for overall contracting activities involving operational units. One of the Army’s training solutions was to develop the Operational Contract Support (OCS) Course at the Army Logistics University at Fort Lee, Virginia, to address the implication that “overall” contracting activities include both acquisition and non-acquisition personnel.

The Procurement Process

All procurements go through five basic steps: requirement development, funding, solicitation and award, management, and closeout. Each step requires an organization with an individual who is responsible for executing its procurement responsibilities.

The chart at right illustrates a simplified view of what I consider to be the Army’s approach to what makes up overall contracting activities. It shows the five steps in the procurement process, the areas of greatest weakness highlighted by the commission (depicted in red and amber), and the organization and individual responsible for each step of the process [resource manager (RM), contracting officer (KO), and contracting officer’s representative (COR)].

Within the requirement development step, the requesting unit is responsible for drafting the performance work statement, independent Government estimate, and letter of justification, providing a purchase request, nominating a COR, and developing a quality assurance surveillance plan. Funding is a unit responsibility and is typically handled by a budget analyst or RM. Solicitation and award is a contracting office function and is managed by a warrant officer. Contract management (not administration) is a unit responsibility and is performed by a COR.

So at each step of the process, someone is trained to perform each specific function. These functions make up what the Gansler Commission called “overall” contracting activities.

The Unit Contract Management Officer

In looking at the chart, you may notice a question mark at the beginning of the process. This is where the chart should show who at the unit is trained to develop and draft the requirement.

The answer, until the creation of the OCS Course in 2009, was “no one.” What typically happened was that a COR would be tasked to develop the requirement because he was the only member of the unit who had any contract training. Unfortunately, as depicted in the diagram, CORs are trained to manage contract performance, not develop requirements. Tasking a COR usually resulted in improperly written requirements that led to reworking of requirements, inefficiency, and a high level of frustration among all players in the process.

Today, the person responsible for requirement development (as well as management of all aspects of a unit’s contracting effort) is the OCS Course graduate. We will call this person the unit contract management officer (CMO). The Army is now building a cadre of CMOs trained to develop requirements and manage “overall” contract activities involving operational units. Support organization tables of organization and equipment (TOEs) are being updated to add the additional skill identifier associated with these trained individuals—just in time for the drawdown of forces.

Contingency Versus Garrison Contracting

Is the application and training of operational contract support only useful in an expeditionary or contingency environment? Or, to put it another way, is the procurement process any different in Taipei, Bucha, Kandahar, Islamabad, Fort Lee, Fort Hood, or Fort Stewart? The answer, basically, is no. There certainly are differences on the fringes. Spending thresholds may be different, staffing processes may be different, and additional or different documentation may be required. But at its core, the procurement process is the same, whether in a contingency operation or a garrison. Every procurement, no matter where you are located, requires the five steps mentioned above.

Does an installation require less outsourcing (contracting) than a contingency operation? No. Installation outsourcing is a fact of life and will continue to be so for the foreseeable future. Just look around your post. Who cleans your buildings? Who does grounds maintenance? Who landscaped? Who teaches? Who maintains? In many of these cases, it is contractors.

Garrison outsourcing requires the same amount of effort and oversight as expeditionary or contingency contracting. Poorly written and managed requirements do not magically cost us less money or less frustration just because they occur in a nonwar environment. This is why I contend that the OCS skill set is applicable and critical to garrison contracting efforts.

The CASCOM commander understood this in 2008 and placed the burden for sustainment contracting squarely on the shoulders of the sustainment community, on and off the battlefield.
Earlier, I mentioned that the procurement process is the same no matter where it is executed, except for possibly around the fringes. This does not mean that the fringes are unimportant. For example, in a garrison environment, the requiring activity (the unit) is still responsible for preparing the requirement package needed to initiate the process. This includes drafting the performance work statement, independent Government estimate, letter of justification, purchase request, and quality assurance surveillance plan and nominating the COR.

The difference in a garrison environment is that the package may include different forms and must be input into the General Fund Enterprise Business System (GFEBS). The basic OCS skills used by CMOs to begin and manage the process in a wartime environment are duplicated in garrison. However, because of the automation used in garrison, CMOS should become as familiar as possible with GFEBS, Wide Area Work flow, and Electronic Funds Transfer when performing their duties in a garrison environment.

**Standardizing Procedures**

Another “fringe” difference is the level of procurement process standardization. In the current operations in Iraq and Afghanistan, procurements must comply with the requirements in a document called “Money as a Weapon System” (MAAWS). This document is the standard operating procedure (SOP) for spending monies in OCS’s AORs. It details spending thresholds, the approval levels for those thresholds, and the boards or forums that must approve each requirement.

Many of you are familiar with the term “Joint Acquisition Review Board,” or perhaps “Joint Facilities Utilization Board.” These boards, their members, and the forms may be familiar to you. Just as in a contingency environment, the responsibility for initiating and tracking a requirement through the process remains with the requiring activity (the unit) and its respective CMO (an OCS Course graduate).

Operational contract support should be an enduring unit training requirement. This includes our sister services. The procurement process is not unique to the Army. It is a Federal process that must be followed by all Federal agencies. Here are a few recommendations to help improve requirements development and contract management in garrison:

- A Department of Defense (DOD)-level version of the OCS Course should be developed.
- Army TOEs should be modified to require that personnel with the OCS additional skill identifier be added to all S-4 and G-4 sections at battalion and above.
- The Army Mission Installation Contracting Command (MILCON) should develop an SOP similar to the MAAWS to be used as a guide by installation commanders in managing installation contracts.
- G-4s should own the local process and formally establish the local SOP using the MICC SOP as a guide.

Although operational contract support may be perceived as only applying to wartime contracting, this is clearly not the case. With impending budget reductions and the strong potential for a reduction in the size of the Army and DOD, outsourcing both is the norm and in contingency environments will be a growth industry that places a premium on the operational contract support skill set.

**Lieutenant Colonel Robert Gould, USA (RET.), is the course director of the Operational Contract Support Course at the Army Logistics University at Fort Lee, Virginia. During his military career, he served in the Air Defense Artillery and Aviation branches and the Army Acquisition Corps. He is Dude Acquisition Workforce Improvement Act Level III certified. He holds a B.S. degree in business administration and an M.S. degree in procurement and acquisition management from the Florida Institute of Technology.**

The physician assistant (PA) profession in the United States began in October 1967 when three former Navy corpsmen graduated from the Duke University PA program. The profession, which came about during a nationwide physician shortage, was developed based on a medical model similar to the way physicians were fast-tracked through training during World War II.

Since the Army was losing physicians to civilian practices in the 1960s, it quickly saw the benefit of PAs. With congressional approval, the Army trained 400 PAs, and the first class graduated in July 1973. The other classes quickly followed the Army’s lead and started their own programs.

PAs initially were warrant officers. In February 1992, the Army began commissioning PAs into the Army Medical Specialist (SP) Corps. Other commissioning officers already in the SP corps included occupational therapists, physical therapists, and dietitians. This was a major force-management transition for the Army, and it took many years to work out the issues resulting from this change.

Malcolm. Army’s progress has been made over the years, but major concerns for the future still need to be addressed. The most critical issue that needs immediate attention is the significant lack of PA field-grade officer authorizations in both the operating and generating forces.

**Field-Grade Officer Deficit**

The field-grade officer deficit began when PAs were first commissioned in 1992. Commissioned rank was awarded based on a warrant officer’s time in service and educational background. Since few PAs had sufficient educational backgrounds during the constructive credit calculation for commissioning, only a few were appoint ed as field-grade officers.

Many PAs decided not to go the commissioned-officer route and, instead, resolved to finish their careers as warrant officers and retire. Others who did not finish their degree requirements for commissioning by the deadline were forced out or involuntarily retired. This created a severe manpower shortage, especially at the higher ranks. Moreover, half of the remaining PA force was eligible for retirement during the post-Desert Storm timeframe when stop loss and the retiree recall expired.

Many of the field-grade PA authorizations were transferred elsewhere in the Army Medical Department (AMEDD) because the newly transitioned PA inventory did not have the field-grade officers to fill the positions. Even when the PA inventory developed and transformed, these authorizations were never returned, which resulted in the present-day force structure inequality.

Current PA authorizations and inventory are unbalanced and do not provide for reasonable growth past the O-4 (major) level. The total number of PA authorizations for fiscal year 2011 was 803, and of those, only 29 were for O-5 (lieutenant colonel) and 3 for O-6 (colonel), making the total for O-5 and O-6 less than 4 percent of the PA authorizations. This is a life-cycle model for growth and development for all PAs because once a PA attains the rank of major he has little promotion potential. With this realization, the PA community must anticipate abnormally high nonselection rates for lieutenant colonels and colonels.

The Army is currently well over strength in PAs at the O-3 and O-4 levels. In fiscal year 2011, the Army had 623 O-3s and 234 O-4s. This force structure does not provide for sufficient career progression and appears to become a throw-away force at the grade of O-3.

The best Army PAs view their profession in the Army as having little progression potential, unchallenging positions, and a bleak promotion rate. Meanwhile, their skills are valuable and the civilian job market is attractive.

The best PAs will start to look at the civilian sector just as the physicians did in the past. In 2010, CNN Money magazine ranked the PA profession as the second best job in the United States for the past 3 years. The inability to retain quality PAs at all levels soon will be a reality the Army will have to manage.

**Mentoring**

Increasing the number of field-grade officers in the PA profession would help provide leader development for junior PA officers. In any area of concentration (AOC),
it is important to have a sufficient number of field-grade officers to mentor, teach, and coach the junior-grade officers. Moreover, guiding future leaders by providing assessment and feedback maximizes their development and improves their career success. Experienced field-grade officers can influence the future of the Army and how junior officers perform by showing them “what right looks like.”

Mentoring is the essential component that is missing here. Any leader or supervisor can provide the personal development, but an experienced PA can best guide professional development in technical and tactical competence and career path knowledge. To gain experience in the operating and generating forces, field-grade PAs need to hold key developmental positions, which currently do not exist, as junior officers.

General Officer Representation

In order to provide field-grade officer PAs with the developmental opportunities and representation needed within AMEDD, the SP Corps needs a general officer (GO). This representation is important for bringing to light the issues in the PA force structure. The GO could sit at the decision table with AMEDD for table of distribution and allowances (TDA) decisions and with the Army G–3/5/7 for modified table of organization and equipment decisions.

The Army Personnel Proponent Directorate (APPD) and the Office of the Surgeon General Program Analysis and Evaluation host the Command Grade Allocation Conference each year in October. With the proper representation, the PA field-grade deficit issue could be addressed at this conference. AMEDD has six branches: the Medical Corps, the Dental Corps, the Veterinary Corps, the Medical Service Corps, the Army Nurse Corps, and the Army SP Corps. Of these six corps, the SP Corps is established appropriately as an O–4 senior PA. The PA positions in all of the combat aviation brigades need to be upgraded to O–4 as well.

In the special operations community, the 75th Ranger Regiment headquarters has properly documented its PA as an O–4. The same needs to be done in the 328th Special Operations Support Detachment and the 160th Special Operations Wing. The Army Special Operations Command headquarters PA billet is currently an O–4 and needs to be upgraded to an O–5. This is necessary because the command PA is the assignments officer for all special operations PA assignments and needs to have a rank equal to that of the staff officers he negotiates with to perform his duties. On the AMEDD TDA, upgrade support battalions to O–5 also need to be made for all PA directors of specialty programs (emergency medicine, orthopedics, and general surgery) and for all of the phase II clinical coordinator positions in phase II hospital sites. A tiered career-progression rank structure up to O–6 for specialty PAs is needed; it currently cuts off at O–4. These upgrades are needed to represent the PA training programs since all of the other program directors and clinical coordinators for other medical programs are either O–5s or O–6s. All of these changes are needed to give the PA officer the proper rank and authority to perform his duties within the staff command and rank structure.

Lack of PA Senior Grade Authorizations

Not enough authorizations currently exist in the generating force (AMEDD) to provide for assignment diversity and to develop PAs who are competitive for positions of increased responsibility. For example, in this article was written, no PAs at the O–5 or O–6 level had been selected to command a TDA hospital or an AMEDD training command because no advocacy or mentorship existed to establish that career path for PAs.

All of the AMEDD corps have adequate representation because most of their authorizations are in AMEDD. However, 80 percent of the PA authorizations are in the Army Forces Command and only 20 percent are in AMEDD by operating force because they are respected at all levels of command as the leaders and the combat medics and the battlefield “docs” who save lives. Commanders rely on this multifunctional officer not only to provide healthcare as a clinician to the Soldiers but also to serve as a staff officer advising on the medical readiness of the unit and to provide operational health service support.

In AMEDD, however, the PAs do not have the opportunity to lead at all levels of clinic command. The experience and diversity gained from operating a clinic, supervising civilians, writing policy, managing a budget, and developing medical education opportunities are key skills that must be mastered to be a successful clinic or hospital commander. PA officers increase in rank, their opportunities to serve in the operational force as clinicians decrease because of the rank structure of maneuver commanders and staff. Thus, ample PA positions need to be available in the generating force to provide increased responsibility and opportunity.

Solving the Authorization Problem

The Army has always been short in its physician inventory. PAs are trained as family practice generalists and can be employed in all medical and surgical services. In the civilian sector, PAs are currently employed in all of the same specialty areas as physicians. Using more PAs in medical treatment facilities will assist PAs with their professional and clinical development and decrease the Army’s strain caused by the physician shortage. New PA positions can be funded by authorizations that are not being used by hospitals or AMEDD. This will ultimately increase both Soldier and dependent access to care. Other key positions that could benefit the Army and the career progression of PAs include:

- Commander of a forward surgical team.
- Staff officer on the Joint and Army Staffs.
- Staff officer in the Office of the Surgeon General.
- Staff officer at combatant commands and theater special operations commands.
- Faculty at the Uniformed Services University of the Health Sciences, the Army Command and General Staff College, and the United States Military Academy.

PAs should have the opportunity for assignment to important developmental positions in order to prepare for future command and key leadership positions at the field-grade level. Some PAs will choose this career route, but those who do need the opportunity to compete for these positions in order to demonstrate the mastery of skills, knowledge, and abilities needed to command and fill key leadership positions. Currently, most PA assignments are clinical in nature, and developmental jobs and leadership positions are scarce.

Some opportunities exist in AMEDD branch-immaterial positions. However, those jobs are scarce as well and depend on the luck of timing and the competition pool. Several fortunate PAs have had the opportunity to command at the company-grade level in years past. Two PAs have commanded forward surgical teams as field-grade officers, and two O–6 PAs have commanded an Army health clinic and a combat support hospital. Although all of these PAs were successful as commanders, none of them recoded any key developmental positions to prepare them for assuming command, which would have made them more successful.

Some of the key developmental positions PAs should be allowed to fill include executive officer or S–3 with a combat support hospital or medical battalion, primary staff officer with a medical brigade, deputy division surgeon, and Army health clinic or medical treatment facility chief of staff, executive officer, or deputy commander for clinical services. PA clinicians must seek diversity in order to develop their skills and become more competitive for positions of increased responsibility.

The PA profession will continue to grow in the Army, and so will its officers despite their many challenges. Change takes time because of the dynamic nature of the Army. Great progress has been made over the years in integrating the PA AOC into the operating and generating forces, but the PA AOC still lacks sufficient field-grade authorizations to provide for officer growth, professional advocacy, and career progression. Providing these valuable officers with more positions and opportunities will help retain quality PAs, allow for leader development and mentorship, increase leadership opportunities, increase access to care, provide assignment diversity, increase competitiveness for promotion, and promote, sustain, and enhance warrior and military family healthcare. With the appropriate increase in PA field-grade authorizations, experienced PA field-grade officers will continue to pioneer in leadership roles, leading by example and mentoring the next generation of PA leaders.
Developing Logistics and Property Accountability in the Afghan Uniform Police

Soldiers of the 728th Military Police Battalion were assigned to train, advise, and mentor Afghan Uniform Police personnel and help them enforce Afghan logistics procedures.

While I was deployed to Afghanistan in support of Operation Enduring Freedom, I was given a unique opportunity to participate in the mentorship mission of the 728th Military Police Battalion Task Force Warfighter, partnered with the Zone 202 Shamshad Regional Police Headquarters (RHQ). I label this opportunity “unique” because of my junior grade as a warrant officer and my duties, which, at first glance, seemed outside the typical responsibilities of a warrant officer. The position had been partnered with his own mentor. The uniqueness was the first time anyone in that position had been partnered with his own mentor. The mentorship mission of the 728th Military Police Battalion property book officer (PBO).

I arrived in theater as a warrant officer and sought a unique opportunity to participate in the mentorship mission of Operation Enduring Freedom, I was given while I was deployed to Afghanistan in support of the North Atlantic Treaty Organization (NATO) Training Mission–Afghanistan (NTM–A) had devoted years and extensive resources to developing the Afghan logistics system and its capabilities. My primary function would be to enforce Afghanistan-approved logistics doctrine and procedures. Many rotations before ours had trained, advised, and mentored the Afghan Uniform Police (AUP), and many more will continue to do so. My particular position, serving as the mentor to the Zone 202 RHQ PBO, was exceptional because it was the first time anyone in that position had been partnered with his own mentor. The mentorship mission of the 728th Military Police Battalion property book officer (PBO).

Afghan Uniform Police personnel attend the first Zone 202 AUP Logistics Conference at the Zone 202 Regional Police Headquarters in Kabul, Afghanistan.

The Foundation

Zone 202 is responsible for 8 Regional Command East provinces, which include a population of more than 8 million. Our zone had 18,000 AUP officers and 84 districts and was responsible for more than 26,000 pieces of equipment.

The progress of the NTM–A, operating in conjunction with Combined Security Transition Command–Afghanistan (CSTC–A) and the mentors who came before us, was immediately evident through the established Ministry of Interior (MoI) operating procedures that my AUP PBO counterpart was using. Although these processes seemed primitive by our standards (primarily because of the lack of automation), a property accountability system had been established nonetheless.

Challenges

It was not long before the unique challenges of the AUP logistics system became evident. Synchronizing logistics initiatives in training and policy execution quickly became the priority because the apparent breakdown in this area was affecting the accuracy and reliability of property book records. Mol Form 14s were hard to track, and the PBO had no established means to follow the progress of these requisitions. The PHQs rarely submitted consumption reports, which caused their requisitions to be rejected. PHQs often went around the system, going directly to the Mol. In these instances, receipt documents (Mol Form 9, Materiel Issue Order) were never submitted to the RHQ, leaving the PBO unable to maintain proper accountability. Until a fully visible and accessible web-based system is available to all, it is necessary to emphasize the requirement for a paper trail that is routed back down through the RHQ to the PHQ. Supply clerks at several DHQs were untrained and unable to provide or maintain accurate property book records. The low literacy rate of AUP workers in supply jobs at the subordinate echelons presented a significant challenge to training efforts. The RHQ logistics directorate appeared to be not very forward thinking. Some of this may have been cultural misinterpretation, but the frequent emergency resupply missions were evidence of negligence. The practices of stockpiling and hoarding equipment at PHQ depots were common, and the frequent emergency resupply missions were evidence of negligence.

Solutions

A key factor in improving accountability was the collaboration mentors’ role in advising their AUP counterparts at the PHQs, DHQs, and Mol. Our contributions to this effort included an Mol Form 14 tracker and a monthly accountability system had been established nonetheless.

Developing Logistics and Property Accountability in the Afghan Uniform Police

Soldiers of the 728th Military Police Battalion were assigned to train, advise, and mentor Afghan Uniform Police personnel and help them enforce Afghan logistics procedures.

While I was deployed to Afghanistan in support of Operation Enduring Freedom, I was given a unique opportunity to participate in the mentorship mission of the 728th Military Police Battalion Task Force Warfighter, partnered with the Zone 202 Shamshad Regional Police Headquarters (RHQ). I label this opportunity “unique” because of my junior grade as a warrant officer and my duties, which, at first glance, seemed outside the typical responsibilities of a warrant officer. The position had been partnered with his own mentor. The mentorship mission of the 728th Military Police Battalion property book officer (PBO).

I arrived in theater as a warrant officer and sought a unique opportunity to participate in the mentorship mission of Operation Enduring Freedom, I was given while I was deployed to Afghanistan in support of the North Atlantic Treaty Organization (NATO) Training Mission–Afghanistan (NTM–A) had devoted years and extensive resources to developing the Afghan logistics system and its capabilities. My primary function would be to enforce Afghanistan-approved logistics doctrine and procedures. Many rotations before ours had trained, advised, and mentored the Afghan Uniform Police (AUP), and many more will continue to do so. My particular position, serving as the mentor to the Zone 202 RHQ PBO, was exceptional because it was the first time anyone in that position had been partnered with his own mentor. The mentorship mission of the 728th Military Police Battalion property book officer (PBO).

Afghan Uniform Police personnel attend the first Zone 202 AUP Logistics Conference at the Zone 202 Regional Police Headquarters in Kabul, Afghanistan.

The Foundation

Zone 202 is responsible for 8 Regional Command East provinces, which include a population of more than 8 million. Our zone had 18,000 AUP officers and 84 districts and was responsible for more than 26,000 pieces of equipment.

The progress of the NTM–A, operating in conjunction with Combined Security Transition Command–Afghanistan (CSTC–A) and the mentors who came before us, was immediately evident through the established Ministry of Interior (MoI) operating procedures that my AUP PBO counterpart was using. Although these processes seemed primitive by our standards (primarily because of the lack of automation), a property accountability system had been established nonetheless.

Challenges

It was not long before the unique challenges of the AUP logistics system became evident. Synchronizing logistics initiatives in training and policy execution quickly became the priority because the apparent breakdown in this area was affecting the accuracy and reliability of property book records. Mol Form 14s were hard to track, and the PBO had no established means to follow the progress of these requisitions. The PHQs rarely submitted consumption reports, which caused their requisitions to be rejected. PHQs often went around the system, going directly to the Mol. In these instances, receipt documents (Mol Form 9, Materiel Issue Order) were never submitted to the RHQ, leaving the PBO unable to maintain proper accountability. Until a fully visible and accessible web-based system is available to all, it is necessary to emphasize the requirement for a paper trail that is routed back down through the RHQ to the PHQ. Supply clerks at several DHQs were untrained and unable to provide or maintain accurate property book records. The low literacy rate of AUP workers in supply jobs at the subordinate echelons presented a significant challenge to training efforts. The RHQ logistics directorate appeared to be not very forward thinking. Some of this may have been cultural misinterpretation, but the frequent emergency resupply missions were evidence of negligence. The practices of stockpiling and hoarding equipment at PHQ depots were common, and cross-leveling efforts were met with some resistance.

Solutions

A key factor in improving accountability was the collaboration mentors’ role in advising their AUP counterparts at the PHQs, DHQs, and Mol. Our contributions to this effort included an Mol Form 14 tracker and a monthly accountability system had been established nonetheless.

Developing Logistics and Property Accountability in the Afghan Uniform Police

Soldiers of the 728th Military Police Battalion were assigned to train, advise, and mentor Afghan Uniform Police personnel and help them enforce Afghan logistics procedures.

While I was deployed to Afghanistan in support of Operation Enduring Freedom, I was given a unique opportunity to participate in the mentorship mission of the 728th Military Police Battalion Task Force Warfighter, partnered with the Zone 202 Shamshad Regional Police Headquarters (RHQ). I label this opportunity “unique” because of my junior grade as a warrant officer and my duties, which, at first glance, seemed outside the typical responsibilities of a warrant officer. The position had been partnered with his own mentor. The mentorship mission of the 728th Military Police Battalion property book officer (PBO).

I arrived in theater as a warrant officer and sought a unique opportunity to participate in the mentorship mission of Operation Enduring Freedom, I was given while I was deployed to Afghanistan in support of the North Atlantic Treaty Organization (NATO) Training Mission–Afghanistan (NTM–A) had devoted years and extensive resources to developing the Afghan logistics system and its capabilities. My primary function would be to enforce Afghanistan-approved logistics doctrine and procedures. Many rotations before ours had trained, advised, and mentored the Afghan Uniform Police (AUP), and many more will continue to do so. My particular position, serving as the mentor to the Zone 202 RHQ PBO, was exceptional because it was the first time anyone in that position had been partnered with his own mentor. The mentorship mission of the 728th Military Police Battalion property book officer (PBO).

Afghan Uniform Police personnel attend the first Zone 202 AUP Logistics Conference at the Zone 202 Regional Police Headquarters in Kabul, Afghanistan.

The Foundation

Zone 202 is responsible for 8 Regional Command East provinces, which include a population of more than 8 million. Our zone had 18,000 AUP officers and 84 districts and was responsible for more than 26,000 pieces of equipment.

The progress of the NTM–A, operating in conjunction with Combined Security Transition Command–Afghanistan (CSTC–A) and the mentors who came before us, was immediately evident through the established Ministry of Interior (MoI) operating procedures that my AUP PBO counterpart was using. Although these processes seemed primitive by our standards (primarily because of the lack of automation), a property accountability system had been established nonetheless.

Challenges

It was not long before the unique challenges of the AUP logistics system became evident. Synchronizing logistics initiatives in training and policy execution quickly became the priority because the apparent breakdown in this area was affecting the accuracy and reliability of property book records. Mol Form 14s were hard to track, and the PBO had no established means to follow the progress of these requisitions. The PHQs rarely submitted consumption reports, which caused their requisitions to be rejected. PHQs often went around the system, going directly to the Mol. In these instances, receipt documents (Mol Form 9, Materiel Issue Order) were never submitted to the RHQ, leaving the PBO unable to maintain proper accountability. Until a fully visible and accessible web-based system is available to all, it is necessary to emphasize the requirement for a paper trail that is routed back down through the RHQ to the PHQ. Supply clerks at several DHQs were untrained and unable to provide or maintain accurate property book records. The low literacy rate of AUP workers in supply jobs at the subordinate echelons presented a significant challenge to training efforts. The RHQ logistics directorate appeared to be not very forward thinking. Some of this may have been cultural misinterpretation, but the frequent emergency resupply missions were evidence of negligence. The practices of stockpiling and hoarding equipment at PHQ depots were common, and cross-leveling efforts were met with some resistance.

Solutions

A key factor in improving accountability was the collaboration mentors’ role in advising their AUP counterparts at the PHQs, DHQs, and Mol. Our contributions to this effort included an Mol Form 14 tracker and a monthly
logistics conference. The MoI Form 14 tracker, which was designed to correspond with MoI Form 3, Register, offered visibility to coalition mentors at all levels. Afghan logisticsian and their coalition mentors were invited to attend monthly logistics conferences held at the RHQ. The conference was not only a forum to hold PHQ accountable for outcomes; it was also an excellent opportunity to conduct logistics training and allow the RHQ to address all PHQs simultaneously. Both were excellent tools in our efforts to streamline accountability, promote routine inventory, and emphasize proper tool in overcoming literacy barriers to logistics training until large-scale literacy training initiatives come to fruition.

It was truly a privilege to be part of the Task Force Warfighter lead team and to partner with the AUP. I am confident that our contributions have promoted positive change not only in RHQ but throughout the AUP and NATO-A. The mission to train AUP personnel and develop sustainment operations began before we arrived in Kabul and will continue as future rotations pick up where we left off.

Our team focused on developing a joint weapons inventory sheet that could be used by partners to conduct a joint weapons inventory of the Shamsheel depot. The team checked the weapons for property accountability and recorded serial numbers.

II (clothing and individual equipment), III (petroleum, oils, and lubricants), V (munitions), and VII (major end items) to minimize emergency resupply and encourage forward planning within the RHQ.

In an attempt to overcome the challenge of training a force with low literacy rates, our battalion maintenance officer, in conjunction with his Afghan counterpart, developed an AUP magazine also includes supply management contributions. The magazine could potentially be an effective tool in overcoming literacy barriers to logistics training during large-scale literacy training initiatives.

Evaluation criteria used to determine the readiness of an ANSF element to become “independent” is relatively subjective in all areas except for equipment. For this reason, it is particularly important that PHQs and DHOs were filled according to Tashkil authorization as much as possible.

Once reliable quantities were reported to the RHQ, the next logical step was to redistribute excess within the RHQ. Cross-leveling is conducted through a cipher (an official order). As is often the case in the U.S. military, the leadership executes anything without a direct official order. A direct official order also holds personnel accountable, and the employment of coalition mentors at PHQ or DHO to facilitate implementation in their area of operations can assist in its effectiveness.

Transparency is a key element of property accountability. This philosophy is true across the logistics realm. By cooperating with our Afghan counterparts, we developed an AUP logistics status worksheet that monitored the consumption of classes I (subsistence), magazine also includes supply management contributions. The magazine could potentially be an effective tool in overcoming literacy barriers to logistics training until large-scale literacy training initiatives come to fruition.

It was truly a privilege to be part of the Task Force Warfighter lead team and to partner with the AUP. I am confident that our contributions have promoted positive change not only in RHQ but throughout the AUP and NATO-A. The mission to train AUP personnel and develop sustainment operations began before we arrived in Kabul and will continue as future rotations pick up where we left off.

Our team focused on developing a joint weapons inventory sheet that could be used by partners to conduct a joint weapons inventory of the Shamsheel depot. The team checked the weapons for property accountability and recorded serial numbers.

II (clothing and individual equipment), III (petroleum, oils, and lubricants), V (munitions), and VII (major end items) to minimize emergency resupply and encourage forward planning within the RHQ.

In an attempt to overcome the challenge of training a force with low literacy rates, our battalion maintenance officer, in conjunction with his Afghan counterpart, developed an AUP magazine also includes supply management contributions. The magazine could potentially be an effective tool in overcoming literacy barriers to logistics training until large-scale literacy training initiatives come to fruition.

It was truly a privilege to be part of the Task Force Warfighter lead team and to partner with the AUP. I am confident that our contributions have promoted positive change not only in RHQ but throughout the AUP and NATO-A. The mission to train AUP personnel and develop sustainment operations began before we arrived in Kabul and will continue as future rotations pick up where we left off.

Our team focused on developing a joint weapons inventory sheet that could be used by partners to conduct a joint weapons inventory of the Shamsheel depot. The team checked the weapons for property accountability and recorded serial numbers.

It was truly a privilege to be part of the Task Force Warfighter lead team and to partner with the AUP. I am confident that our contributions have promoted positive change not only in RHQ but throughout the AUP and NATO-A. The mission to train AUP personnel and develop sustainment operations began before we arrived in Kabul and will continue as future rotations pick up where we left off.

Our team focused on developing a joint weapons inventory sheet that could be used by partners to conduct a joint weapons inventory of the Shamsheel depot. The team checked the weapons for property accountability and recorded serial numbers.
Rethinking the Last Tactical Mile: Adaptive Air Logistics in Africa

BY MAJOR JOSEPH D. GADDIS, USAF

Airlift operations in Africa face unusual political and infrastructure challenges. The author believes that exercises provide opportunities to test new solutions, such as the use of contracted commercial aircraft.

Military air logisticians expect flexibility in air power when it comes to the rapid movement requirements of medical evacuations, natural disaster relief deployments, and contingency operations. It has become second nature for the U.S. military to plan for its aircraft to flexibly meet imminent requirements around the globe. However, when it comes to the austere African environment, system “flexing” is often not enough to accomplish the mission.

The two main challenges for air logisticians in Africa are access to suitable airfields near the area of operations and prompt procurement of aircraft that can travel to the designated location. Just as the military has adapted its strategy for fighting the war on terrorism from conventional warfare tactics to nonconventional methods, so too must air logisticians adapt to nonconventional methods to operate in the relatively undeveloped conditions found in much of Africa. Exercises like Exercise Atlas Drop provided a low-threat opportunity to blaze diplomatic clearance trails for the new wing, which will pay dividends for AFRICOM in the future. (Photo by Maj. Joe Gaddis, USAF)
Atlas Drop '11 in Uganda provide low-threat developmental opportunities for air logisticians to rethink tactical airlift and develop effective long-term solutions to the tyranny of time and distance in austere environments.

Problems During Natural Fire '10

U.S. Army Africa (USARAF) first experienced the challenges of using conventional U.S. military airlift methods in Africa during exercise Natural Fire '10. In that exercise, U.S. Africa Command (AFRICOM) C−130 Hercules transports were unable to use the “suitable but unusable” airfield in Gulu, Uganda, because of the limited weight-bearing capability of the last 1,000 feet of the runway. This airlift shortfall generated a requirement to transport three 11th Aviation Company CH−47 Chinook heavy-lift helicopters from Fort Knox, Kentucky, to Gulu, Uganda, which required a $3 million increase in the exercise’s budget.

During redeployment from the exercise, the U.S. Air Force C−17 Globemaster III cargo planes allocated for the operation were subsequently reassigned to support higher priority missions. The multinational Heavy Airlift Wing C−17 unit from Papa, Hungary, was unable to provide an alternative because of problems with its diplomatic clearance request processes. After these two redeployment plans failed, a 3-week wait ensued while AFRICOM obtained diplomatic clearances for its C−130s to finally recover the troops and equipment from the exercise.

USARAF logistics planners and staff had the choice of accepting this as the norm for working in Africa or changing the dynamics of tactical airlift to meet the logistics needs of future exercises. Atlas Drop '11 provided an opportunity to change the dynamics by using contract aviation.

Working With Uganda’s Air Force

In the past, Atlas Drop exercises focused on joint, multinational airborne operations with North African nations. However, 2011 presented an opportunity to transform the focal point of the exercise to spotlight joint aerial resupply. The Ugandan military welcomed this exercise as a chance to integrate platoon-sized joint aerial resupply into its operations.

As the lead U.S. component for the exercise, USARAF chose to use aircraft and airdrop systems that are similar to the capabilities currently accessible in Uganda. Those air platforms included the Ugandan Peoples Defence Air Force (UPDAF) Bell 208 Jet Ranger and Russian-made MI−17 helicopters. USARAF contracted for a Cessna 208 Grand Caravan utility aircraft. The U.S. Air Force provided a C−130, which has capabilities similar to the Russian-made AN−12 transport and the L−100 transport (the civilian variant of the C−130), for which the UPDAF routinely contracted.

USARAF again invited the Heavy Airlift Wing C−17 unit to participate, this time in a not-mission-critical role. Their successful involvement during the exercise opened the door for reliable use of that unit in East Africa in the future. USARAF designed the exercise around multiple sources of airlift, which eliminated single points of failure and capitalized on the flexibility and capabilities of different aircraft.

Turning to Commercial Freight Companies

Instead of using military airlift to move equipment to and from the exercise, planners used commercial freight vendors. This provided exercise participants with door-to-door delivery service and eliminated the need for extra personnel to channel the equipment through freight and customs areas. The Small Commercial Cargo Program provided reliable commercial channel flight schedules and allowed equipment to be delivered in less than 10 days.

Providing In-Transit Visibility

Not only was Atlas Drop a test bed for commercial tactical airlift, it also offered the opportunity to test new in-transit visibility (ITV) technologies. To date, very few radio frequency identification (RFID) reading systems are on the continent of Africa, rendering RFID tags useless once cargo departs the United States.
sides legally. However, this cumbersome legwork can be settled early by organizing blanket purchase agreement (BPA) contracts ahead of time. The first Atlas Drop ’11 airdrop contract took more than 60 days to complete, from initial solicitation to award. Conversely, it took only 1 day to arrange the movement of personnel using a Combined Joint Task Force–Horn of Africa BPA air contract with the same civilian company. USARAF is now establishing BPA-type contracts for surface movements to capitalize on this highly responsive avenue for logistics supply in Africa. U.S. Air Forces Africa will lead the effort for air safety and contract air for common users, while the AFRICOM Deployment and Distribution Operations Center will prioritize the effort and make the major intermodal decisions.

The Diplomatic Clearance Hurdle
A major question facing logisticians in Africa is whether the legwork of contracting airlift outweighs the challenges often associated with traditional methods of using U.S. military aircraft in Africa, which include lengthy processes to obtain diplomatic clearance. Carrying out a mission into most countries often requires 14 to 21 days of leadtime. For the Hungary-based C–17 unit, this process can be as long as 30 to 45 days.

When working with operations in landlocked countries, diplomatic over-flight clearance lead-times reduce the flexibility of the DOD airlift system. Domestically registered contract aircraft do not have these clearance issues. Their simple country clearance process enables them to plan a flight in less than a day. Foreign civilian carriers operating in Africa (including U.S.-registered carriers) also face less diplomatic redtape and do not require the same lengthy clearance process as the U.S. military. Building clearance equities among foreign civilian carriers and the U.S. military in Africa supports AFRICOM’s strategic Adaptive Logistics Network, which by definition flexes to meet
the widely varying logistics needs in Africa. (See a related article, “The New Spice Route for Africa,” in the March–April 2012 issue of Army Sustainment.)

Using Austere Airfields

After clearance timing, the next major advantage to using contract airlift is access to austere airfields. Of the more than 3,300 airfields documented by the National Geospatial-Intelligence Agency, only 303 have been surveyed by the U.S. Air Force. One-third of those surveyed are not routinely used by the Air Force, and the surveys have consequently expired. Of the remaining 158 airfields that have current surveys, half have weight limitations that make them impractical for operating a C−130 or larger aircraft.

The practical effect is that the AFRICOM C−130s can only fly into one or two airfields in any given country in Africa. The question for the component commander then becomes, “How do we get the last tactical 300 nautical miles?” The answer is either a nail-biting, backbreaking, multiple-day truck movement or contract air.

While the strategic airlift hubs in Africa have received adequate attention and funding from DOD, the bulk of operations in Africa are not conducted in and around these hubs. To date, there is no effective one-stop shop to which DOD customers may turn for air logistics solutions. As AFRICOM develops, the solution will emerge. DOD simply cannot afford to fix thousands of airfields in Africa to have them meet U.S. Air Force requirements.

The U.S. Air Force requirements could be changed to survey the airfields as assault landing zones rather than as fully operational runways. This would allow C−130s to use significantly more airfields, but it would also impose heavy workloads on already over-tasked special tactics teams or contingency response groups to perform the recurring survey work.

Access to austere fields and aircraft asset availability will always be difficult factors facing the U.S. Air Force in competing on the tactical level with contract air. The simpler, more immediate solution is for the CARB to approve more commercial air carriers operating in Africa. This process allows local companies to prosper through DOD funding while promptly meeting the customer’s needs at a fraction of the cost. Exercises like Atlas Drop provide opportunities for component commanders to test the waters, learn the best practices, and form future policy by writing the how-to book for AFRICOM. By frontloading the contracting process with BPAs from a wide variety of CARB-approved commercial carriers, DOD operations in Africa can get closer to the 24-hour reaction time to which the U.S. military has grown accustomed.

Most airfields in Africa are not usable by U.S. Air Force C−130 Hercules transports.

**USARAF and AFRICOM**

Headquartered in Vicenza, Italy, U.S. Army Africa (USARAF) is the Army service component command for the U.S. Africa Command (AFRICOM). Dedicated to positive change in Africa, USARAF enables full-spectrum operations while conducting sustained security engagement with African land forces to promote security, stability, and peace. For more information about USARAF and its ongoing activities, visit its website at www.usaraf.army.mil.

**MAJOR JOSEPH D. GADDIS, USAF, is an air mobility liaison officer for the 621st Contingency Operations Support Group, 621st Contingency Response Wing, based at Joint Base McGuire-Dix-Lakehurst, New Jersey. He is stationed in Vicenza, Italy, where he provides U.S. Army Africa with air mobility expertise in employing U.S. Transportation Command’s air assets. He holds a bachelor of electrical engineering degree from Auburn University and a master’s degree in theological studies from Liberty University and is a graduate of the Squadron Officer School and the Air Command and Staff College.**
The 3d Sustainment Brigade Embraces Finance

The brigade’s experience in Iraq demonstrates how finance is being integrated into the mission of sustainment brigades under the Army’s modular transformation.

Since the Army transformed into a modular force, changes to the chain of command have affected where finance units receive their technical guidance. During the transition from Operation Iraqi Freedom to Operation New Dawn, the 3d Sustainment Brigade assumed responsibility for managing the finance footprint for the entire country of Iraq. Because the brigade accepted finance as one of the most important commodities across the Iraq theater of operations, the transformation of finance operations from a stove-piped organization into the sustainment brigade’s modular structure was fully realized. The result was to make finance operations a combat force multiplier on the battlefield.

Finance Organizational Transformation

Before its transformation, the structure of finance units was similar to that of other branches. The finance group was commanded by a colonel, the finance battalion was commanded by a lieutenant colonel, and the detachments were commanded by captains. On the noncommissioned officer (NCO) side, there was a command sergeant major at the battalion level, a command sergeant major at the battalion level, and sergeants first class at the detachments. When finance units deployed, the detachments were colocated with brigade combat teams but still reported to the finance battalion, which in turn reported to the finance group. The charts on pages 43 and 44 show the finance organizational structure before and after transformation.

After transformation, the finance group was converted to a financial management center (FMC). Although the FMC has no mission command of lower-level units, it still has a chain of command and is responsible for policy and other technical guidance to finance companies.

The FMC makes policy on matters such as limits on check cashing, casual payments, and how much cash each company can hold to sustain operations. The FMC also has an internal control section that travels to finance companies and conducts on-the-ground inspections. The FMC has a central funding section that re-supplies the companies’ cash during contingency operations.

The finance battalion was changed to a financial management company (FMCO), and the lieutenant colonel commanding the battalion was replaced by a major commanding the FMCO. The administrative support the finance battalion used to provide is now typically provided by the sustainment brigade’s special troops battalion (STB).

Once the finance battalion and brigade were transformed, finance units lost all the finance command sergeant majors in their chain of command. The sergeant major is the senior technical adviser to the FMCO commander. The company also has a first sergeant, who serves as the top NCO in the chain of command instead of the sergeant major.

Although the FMCO is smaller than the battalion staff was, it still has an internal control team that works for the commander, the central disbursing office, a resource management team, an automation team, the finance operations office, and the headquarters section. The former battalion headquarters is now a company headquarters of 27 Soldiers normally aligned with 5 financial management detachments totaling 105 Soldiers.

The detachments remain very similar to their old structure, but the modified table of organization and equipment (MTOE) is structured for team missions to outlying forward operating bases (FOBs). The financial management detachment consists of 26 Soldiers, organized into 3 financial management support teams (FMSTs) that conduct forward financial management missions. Since the transformation, when the detachments deploy, they report to a FMCO that now falls under the STB, a subordinate unit to the sustainment brigade.

Impact on the Brigade

The addition of finance as a commodity to the 3d Sustainment Brigade created a learning curve for the FMCO, the STB, and the brigade. The interaction among the brigade, the Defense Finance and Accounting Service, the U.S. Forces–Iraq comptroller (J-8), the theater and division resource management comptrollers (J-8 and G-8), the Army Finance Command, and the supported brigade commanders is unique to finance.

Those traditional relationships, which used to be maintained by the battalion, are now maintained at the company and brigade levels. The financial technical chain now goes from the FMCO commander to the brigade commander. The 3d STB is not responsible for any interaction with outside finance agencies. A finance cell in the brigade support operations (SPO) office advises the sustainment brigade command and serves as a link between the outside agencies and the FMCO. The SPO position is critical to keeping the brigade commander informed and up to date on all finance issues.

The brigade financial management SPO (FM SPO) is important to both the sustainment brigade commander and the FMCO. The FM SPO brings finance issues to the brigade commander and converts the finance information contained in reports into information that can be used to make decisions on the battlefield. The FM SPO also forwards the sustainment brigade commander’s guidance to the FMCO in finance terms. As the FM SPO does this, the learning curve flattens and both entities become more synchronized.

A brigade tends to track money in the same way that it tracks commodities such as water, fuel, and ammunition. The traditional finance disbursing officers’ way of tracking and ordering money is different from the resupply metrics used by other commodities. Funding for a finance unit is governed by many factors that are unique to the finance function, such as how much local business the local bank can accommodate, how many nonroutine payments to local civilians (such as cash for cash and the Commander’s Emergency Response Program) are made, or how many logistics Civil Augmentation Program contracts have a need for cash payments. This was where the FM SPO uses the Department of Defense Financial Management Regulation and logistics reporting methods to eventually get everyone synchronized.

The FMCO-STB Relationship

As the FMCO’s technical relationship with the 3d Sustainment Brigade was being perfected, its tactical relationship with the battalion was much more seamless. The transition to falling under an STB improved mission command between the brigade and the FMCO commander. The FMCO commander now has a bat- talion to process adminis- trative actions, provide tac- tical support, and provide field grade-level Uniformed Code of Military Justice authority. The technical aspect of the previous finance bat- talion is held at the sustainment brigade, while the tactical authority was held at the STB.

In garrison, the STB had the task of understanding Sol- dier taskings as part of the garrison finance mission. When Soldiers were required to be at a formation during the duty day or were put on detail, the garrison missions suffered. In- and out-processing, separations, and mobilizing and demobilizing at the home installation required all available Soldiers to keep up with the flow of new arrivals or de- parting troops. Pulling one or two Soldiers out of the office created a bottleneck in processing operations. Once the STB personnel understood the garrison mission, they quickly adjusted to supporting garrison responsibilities however possible.

The Brigade Finance Cell

The 3d Sustainment Brigade deployed with two majors and one master sergeant in the SPO section based on the MTOE for Operations Iraqi Freedom and New Dawn in 2010. Since the concept of having finance expertise in the brigade was new and loosely based on field and technical manuals, other brigade commanders adjusted their person- nel and strayed from the MTOE in order to find a better fit with the mission after transformation.

The focus of the finance cell at the brigade was to track and report all transactions conducted by the FMCO in both the financial offices and on FAST missions. In addition to tracking the number of dollars spent, the brigade also conducted cash verification missions every quarter. These missions were crucial to ensuring that the finance units maintained and spent cash on the battlefield prudently and accounted for it in order to meet financial management regulations. These audits were performed 4 times per year in 15 different locations, which helped keep the brigade from having any major losses of funds during its rotation in Iraq. Besides monitoring, tracking, and reporting daily busi-
In addition to adjusting the footprint of finance support to meet the needs of the warfighter on the battlefield, the brigade commander reduced the finance administrative footprint from two FMCOs to one. Although Field Manual 1−06, Financial Management Operations, mandates that each finance company have three to seven finance detachments, the brigade commander did not see an issue in reducing the FMCO footprint to one company with eight detachments.

After welcoming finance into the sustainment community and gaining knowledge of finance activities, the 3d Sustainment Brigade clearly saw that relieving one finance unit from deploying and shortening another’s deployment timeline was the right thing to do for this mission. This relieved the finance community of the necessity of deploying a FMCO to Iraq, thus streamlining operations in Iraq and gaining efficiency and effectiveness along the way.

After seeing the transition and the attention the sustainment brigade put into making the finance mission relevant and successful, it is apparent that finance has been embraced by the sustainment brigade and the logistics community. In the 1980s, finance belonged to the division support commands and was integrated into the overall sustainment plan for supported units. Because of this seamless integration, financial support was provided for the sustainment brigades, where finance operations are integrated into the sustainment brigade and the logistics community. In 2010 and 2011, the 3d Sustainment Brigade subsistence section provided bottled water and ice in U.S. Divisions North and South, kosher rations, and unitized group rations, and provided bottled water and ice in U.S. Divisions North and South (USD−N/C). The previous month’s performance work statement agreed on by the contractors was 96-hour forecast. Adjustments and readjustments were made to adequately support units in the IJOA.

The 3d Sustainment Brigade subsistence section primarily processed orders that supported 22 mobile kitchen trailer (MKT) accounts, accounted for operational rations (meals ready-to-eat [MREs]), halal meals, kosher rations, and unitized group rations, and provided bottled water and ice in U.S. Divisions North and South (USD−N/C). The mission seemed easy enough: to support personnel with an accurate quantity of bottled water and operational rations.

Proper execution determined the success of the mission. Planning factors, such as the availability of transportation assets, the frequency of movements to and from forward operating bases (FOBs), and even the performance work statement agreed on by the contractor and the Government, were pieces of the puzzle that could not be ignored. Therefore, if one piece was missing from the sustainment puzzle, the mission would inevitably fail. Preparing for the drawdown forced commodity managers to “step out of the box” and look at the big picture.

Managing MREs

The first challenge encountered was managing MREs. It seemed that, with the existence of dining facilities and MKT accounts, MREs were no longer being used. The 3d Sustainment Brigade processed an average of 150 sets of food orders each week for the MKTs that it managed. In order to accurately predict MRE use, we in the class I section used historical data to identify trends. We formulated a monthly stock objective for the FOBs that we supported across USD−N/C. The previous month’s daily average issue was used to determine a stockage objective based on 25 days of supply. Each month, we analyzed the MRE consumption rate at the FOBs and determined a new stockage objective.

For example, FOBs with large headcounts that averaged a daily consumption of no more than five cases of MREs in 1 month were assigned a stockage objective of 125 cases. However, one concern was justifying a stockage objective of 125 cases of MREs on a FOB that supported a combined headcount of more than 20,000 military and civilian personnel. The headcount was too large for this stockage objective. With one case of MREs holding 12 individual meals, it takes 1,000 cases per day to support 4,000 personnel if each person eats 3 MRES. The analysis we conducted indicated

### The Effect of the Responsible Drawdown of Forces on Class I Sustainment

During the drawdown of troops from Iraq, class I managers found that they had to change the way they conducted business to continue to provide Soldiers with the support they needed.

**MAJOR TERRY SULLIVAN is the executive officer of the Army Financial Management Command’s operational support team. He was the brigade financial management support operations officer-in-charge for the 3d Sustainment Brigade during the brigade’s deployment to Operations Iraqi Freedom and New Dawn in 2010 and 2011. He previously served as commander of E Detachment, 126th Finance Battalion, at Fort Bragg, North Carolina, and as disbursing officer of the 230th Finance Battalion at Forward Operating Base Ironhorse, Iraq.**
that because MREs were not the primary meal source, storing MREs based on headcount did not make sense. A large number of MREs could be needed in case of an emergency, however, and was not practical or efficient to store a large number of cases that in most circumstances would not be needed.

Basing the stockage objective on history was a method, but it was not the only factor. The time and distance from Joint Base Balad to direct support hubs and spokes, the average time required to receive MREs directly from the prime vendor in Kuwait, and the frequency of ground transportation were all factors in determining a stockage objective. Nevertheless, no perfect equation could determine the final stockage objective, so adjustments were made monthly.

The Effects of Communication Gaps
Other factors greatly affected the way MREs were managed in our area of operations. Factors such as the total number of MREs available across USD-N/C, expiration dates, and money lost because of degradation caused by lack of use and the extreme temperatures in Iraq affected decisions on the management of the meals. Throughout the deployment, the method used to forecast MRE requirements was effective approximately 80 percent of the time. It seemed as if once every quarter, there was an MRE “crisis,” where the sustainment brigade forecast showed green status for at least 96 hours and then at red or even black status. These occurrences were not due to a lack of MREs or of transportation assets to move them but to a lack of communication from the unit of issue. It seemed that units had no MRE issue plan and no thought of future MRE consumption, which caused a complete absence of predictability.

The benefit of using ITN to move commodities was that convoy escort teams were not required to escort the movements. ITN had a 6-day movement window to deliver its cargo. It became the primary resource for moving bottled water, even though the contingency plan was to use regularly scheduled sustainment convoys to support the units in our area of operations.

The 6-day movement window forced an increase in the amount of bottled water moved at one time. The theater used a 10-day stockage objective that allowed flexible operations in periods of restricted movement. Increasing the amount moved through ITN was necessary for managing contingencies without degrading support to units. Within 2 months of beginning to use ITN, we were transporting more than 150,000 cases of bottled water weekly to support units.

Prime Vendor Change
As preparations for drawdown were underway, the Iraq theater was also preparing to transition from one subsistence prime vendor, Agility, to a new prime vendor, Anham. We had to guarantee that our customers had all the details correct. Constant communication with the new prime vendor was imperative in understanding changes in the concept of support.

At times, operations were conducted routinely, and at other times, problems seemed to be at every turn. One massive change was the way Anham planned to distribute class I in theater. Agility had supported the theater from warehouses located in Turkey and Kuwait. Locations in northern Iraq from Habur Gate to Contingency Operating Base Speicher primarily received class I arriving from Turkey. Locations from Joint Base Balad south to Tactical Assembly Area Virginia received class I from Kuwait. Anham inherited a huge mission, and it planned to support the JOA’s from only one warehouse in Kuwait.

This new distribution plan caused some concern about the time it would take to move class I from south to north without the goods degrading. Would fresh fruits and vegetables be available for the move from the south? Anham conducted two test runs to the north that originated in Kuwait. The results of the test runs were positive, with the movement to Contingency Operating Base Speicher averaging 4 days.

We researched the shelf life of frequently ordered fresh fruits and vegetables and the temperature that each item required to sustain that shelf life. The 4- to 6-day movement from Kuwait to northern Iraq cut into the shelf life, but it was manageable. The transition of distribution operations from Turkey to Kuwait began in the middle of September and ended in the last week of November.

As the Anham contract began to take shape in the JOA, operations appeared seamless. Required delivery dates were met. Any problems that Anham seemed to encounter did not affect operations. However, that soon changed with the first complaint about the receipt of spoiled fresh fruits and vegetables in the north. Images of rotten tomatoes, cauliflower growing bacteria spores, and nectarines covered in mold set off a red alert to all the units Anham supported.

Would this be the norm for fresh fruits and vegetables coming from Kuwait to the north? That question had to be answered, especially since Anham guaranteed that the support it provided to the units would be equal to that of Agility. The answer certainly had to be no. Commodity managers in the 3d Sustainment Brigade had to simultaneously find a way to resolve the problems with Anham and restore the confidence of supported units.

The drawdown had an enormous effect on class I operations throughout Iraq. Commodity managers were forced to discontinue routine, general ideas to continue to support units on the ground while the gradual reduction of forces and resources was underway. This was not as simple as supporting the shrinking number of personnel with fewer class I rations; it meant factoring in the closures of bases and dining facilities, the reduction of convoy escort teams, and the impact of those events on operations. The drawdown had a domino effect on all support processes. So what does it take to provide class I support to personnel spread across hundreds of miles of land, ranging from the northern Iraq border at Habur Gate down to Victory Base Complex and the surrounding areas in Baghdad? The answer is simple: patience, analysis, and constant communication. At times, operations were conducted routinely, and at other times, problems seemed to be at every turn. The solution was to continue what we did well and improve on what we did not while striving to provide excellent customer service to the units we supported.
Supplying the Forces While Rightsizing Ammunition Storage Activities

The 3d Sustainment Brigade’s class V section improved the management of excess and unserviceable ammunition and completed the retrograde, cross-leveling, and demolition of ammunition while supporting the drawdown of forces in Iraq.

The 3d Sustainment Brigade support operations class V (ammunition) section provided oversight and management and planned the responsible drawdown of ammunition for the corps storage area (CSA), ammunition supply point (ASP), and seven ammunition transfer holding points (ATHPs) in U.S. Division North (USD-N) and U.S. Division Central (USD-C).

During Operation Iraqi Freedom 10–11 and Operation New Dawn, the class V section coordinated and provided oversight of the management of ammunition from the ammunition storage activities (ASAs) throughout the area of operations. The section developed plans, policies, programs, and procedures for the class V wartime mission and future operations. It was responsible for managing retrograde, redistribution operations, and common-item support with the other services.

The class V section was manned with Soldiers with military occupational specialties (e.g., warrant officer, 89B (ammunition specialist), and 89A (ammunition stock control and accounting specialist)). The section also provided support to seven brigade combat teams (BCTs), six advise and assist brigades, and two combat aviation brigades, including air assault, Armor, cavalry, Aviation, and Engineer units. The class V section verified that all subordinate units continuously possessed the proper combat load and ensured that the supporting ASAs maintained a current logistics status report or BCS3 and requiring ammunition managers to submit a monthly expenditure report ensured that the remaining ASAs effectively supported the units’ requirements.

How It Was Done

The class V section’s Soldiers proactively assisted incoming and outgoing units in all facets of ammunition operations. They reviewed, validated, and approved ammunition transfer holding points (ATHPs) in U.S. Division North (USD-N) and U.S. Division Central (USD-C).

Throughout the deployment, the section provided support to assist brigades, and two combat aviation brigades, including air assault, Armor, cavalry, Aviation, and Engineer units. The section also maintained asset visibility of ammunition and track and manage the retrograde of class V ammunition in excess of stockage objectives and in support of Kuwait. The last two phases included retrograde, cross-leveling, and demolition of ammunition not expended in the last 12 months, and retrograding unserviceable ammunition to the demilitarization site in Iraq, retrograding ammunition not expended in the last 12 months, and retrograding ammunition with no current stockage objective to Kuwait. The last two phases included retrograding unserviceable ammunition in excess of stockage objectives and in support of Kuwait.

The 3d Sustainment Brigade’s class V section improved the management of excess and unserviceable ammunition and completed the retrograde, cross-leveling, and demolition of ammunition while supporting the drawdown of forces in Iraq.

The 3d Sustainment Brigade’s class V section improved the management of excess and unserviceable ammunition and completed the retrograde, cross-leveling, and demolition of ammunition while supporting the drawdown of forces in Iraq.

The 3d Sustainment Brigade’s class V section improved the management of excess and unserviceable ammunition and completed the retrograde, cross-leveling, and demolition of ammunition while supporting the drawdown of forces in Iraq.
The Busiest Brigade Support Medical Company on the Battlefield

BY CAPTAIN MICHAEL A. MILLER

A brigade support medical company deployed to Afghanistan exhibited flexibility and durability while providing support to a widely dispersed force.

Aeromedevac helicopter drops off a patient.

After arriving in Logar Province, Afghanistan, C Company, 125th Brigade Support Battalion, 3d Infantry Brigade Combat Team (IBCT), was responsible for providing medical support to more than 3,600 Soldiers spread across 17 operating bases throughout the Wardak and Logar Provinces. Within the first 30 days of the deployment, C Company treated more than 1,400 patients for conditions ranging from urgent surgery to routine sick call.

During this time, C Company established a medical compound that included a forward surgical team (FST), a Jordanian FST, and level II medical assets. The company also established the brigade medical supply office to provide the 3d IBCT with more than $800,000 worth of medical supplies.

Unit Training
C Company’s medics conducted more than 50 blood drives, 2 real-world mass casualty events, and several Afghan-partnered field training exercises. It also conducted the battalion’s first-ever first responder course for all non-medical brigade personnel.

During this training, Soldiers learned how to establish a landing zone, submit a 9-line medevac request, conduct improved first aid kit familiarization, apply a tourniquet properly, recognize the signs and symptoms of mild traumatic brain injuries (mTBIs), and fill out tactical casualty care cards (formerly known as field medical cards). C Company also trained its Afghan National Army partner units on how to execute independent medical support for their supported units.

Capabilities and Missions
Colocating with the FST, Jordanian FST, and mTBI clinic on the battlefield vastly improved C Company’s medical support to the BCT. The company became more robust than a normal level II facility. Radiology and laboratory capabilities were colocated with the FST to ensure more effective and responsive treatment and give the doctors more insight into injuries. The facility lacked only a CT-scan machine to be classified as a level III facility.

Since no Army guidance was available on how to command or operate such a robust outfit, after-action reviews were conducted regularly to ensure that the lessons learned were captured for future operations.

In addition to working with an already high operating tempo, C Company had to support different missions, such as the quick-reaction force, logistics convoys, and detainee screenings, throughout its deployment. The different types of operations forced the company’s leaders to think outside of conventional doctrine to accomplish these missions. This ensured that the unit remained flexible.

To bridge the cultural gap with the Afghan people,
the Army’s new female engagement teams helped relieve male medics from treating or conversing with the local Afghan females unless the situation threatened life, limb, or eyesight. Measures like these made working relationships better and built on the company’s counterinsurgency concept. The trust gained from exhibiting cultural awareness led to fewer attacks on Soldiers, fostered a more welcoming Afghan community, and strengthened the information operations campaign.

Unit Organization

C Company’s mission in Afghanistan was to operate four medical sections—treatment, area support, medical evacuation, and the headquarters—with the intent to run 24-hour operations. The treatment section had 8 to 12 medics working at any given time, along with a medical provider, a patient hold representative, patient administration specialists, a pharmacist, and the mission squad. The area support section was made up of the physical therapy, dental, radiology, lab, combat stress, mTBI, and preventive medicine sections.

The medical evacuation section was needed to provide responsive force protection health care to U.S. and coalition Soldiers and Afghan partners. The headquarters section consisted of the brigade medical supply and company supply sections. Together, they supported over 10,000 coalition force and Afghan National Army soldiers and contractors serving in the area of operations (AO).

One of the most important sections was patient administration. To ensure 100-percent accuracy in tracking patients, all patients came through this section to be screened before seeing any provider. Two patient administration specialists were responsible for tracking all brigade personnel; they quickly became a very valuable asset. They worked 12-hour shifts, 24 hours a day, 7 days a week, and they were called in for every medical evacuation that involved a coalition Soldier, contractor, or local national. All information they gathered was sent to the brigade surgeon cell and disseminated to all units within the AO.

Operations

Along with providing care on a daily basis, C Company was tasked with providing medical care for logistics convoys to offloading forward operating bases. The convoy teams were made up of two medics: one dismounted medic who could exit the vehicle to provide care at a moment’s notice and a second medic who was on standby. With the unit averaging two to three convoy missions per week, the mission squad was often left with only two medics to conduct day-to-day tasks.

The physical therapist assigned to C Company often conducted a battlefield circulation, visiting every location in the AO over a period of 3 weeks. The need for physical therapy was so great at some locations that the therapist often stayed for extended periods. To maintain continuous care, the physical therapy technician, a cross-trained Soldier in military occupational specialty 68W (healthcare specialist), remained at the aid station to ensure that all patients received the highest level of care.

The personnel in the preventive medicine section spent most of their time on the road making monthly visits to each major forward operating base. They also traveled to each combat outpost to ensure that all Soldiers were living and working in healthy conditions. In addition to providing care to U.S. Soldiers, they conducted assessments in local villages and Afghan National Army compounds.

Because of the large amount of equipment required to provide dental services and the mobility issues and power requirements associated with that equipment, the dental team was primarily assigned to the aid station. This team traveled only on a limited basis with limited tools, mainly to provide basic dental services and dental care classes.

Valued Attachments

Four sections that normally are not part of C Company’s modified table of organization and equipment—mTBI, FST, Jordanian FST, and aeromedevac—made the company unique. These sections were combat multipliers for C Company and the 3d IBCT. After C Company’s relief in place, the mTBI clinic treated 961 patients, 349 of whom returned to duty.

The mTBI section was an important commodity in the forward fight. Being colocated with a combat stress team enabled the unit to provide oversight for suicidal and depressed patients around the clock. Without this capability, Soldiers would have had to be evacuated to a location with a higher level of care, taking them out of the fight for at least a week because of travel time and reducing their units’ efficiency.

The mTBI team was a mobile commodity that could be at any location within 24 hours of an event. The standard operating procedure specified that all Soldiers exposed to a blast must be cleared by the mTBI team. This not only protected the Soldiers’ near-term health but also protected them from possible future complications.

Having the aeromedevac capabilities colocated increased communication, created better working relationships, and aided in training. Patient loads can be a major issue for rotary-wing aircraft. Having both units located in the same AO created an advantage for cold-start training events, which improved load times and simplified patient-weight distribution.

The C Company tactical operations center serves as the central point for all battlefield tracking.
How to Choose and Use Seals

by Dr. Roger G. Johnston and Dr. Jon S. Warner

Seals are designed to show if a container has been opened. But research demonstrates that seals are vulnerable to attack and require careful selection, use, and inspection.

Tamper-indicating seals have been in use for well over 7,000 years.1–3 Today, seals are widely used for a variety of applications, including cargo security, nuclear safeguards, counterintelligence, theft detection, loss prevention, records security, employee drug testing, and election integrity.4–9 They protect money, transportation containers, footlockers, courier bags, filing cabinets, utility meters, hazardous materials, instrument calibrations, drugs, weapons, computer media, warehoused goods, and other critical items.

Despite their antiquity and widespread modern use, quite a few misconceptions, poor practices, and misleading terminology remain when it comes to seals and seal use.10–14 This article is a brief primer on how to choose and use seals. It is based on two decades of research by the Vulnerability Assessment Team at Argonne National Laboratory in Illinois.15–22

What Is, and Is Not, a Seal

First off, it is important to be clear on what a seal is and what it is not. (See the photo at right for examples of seals.) Unlike a lock, a seal is not intended to delay or discourage unauthorized entry (except possibly in a vague psychological sense). Instead, a seal is meant to leave behind unambiguous, nonerasable evidence of unauthorized access. Complicating the issue is the fact that there are “barrier” seals, which are devices that are part lock and part seal. Barrier seals have their uses, but the downside is that they cause a lot of confusion for users and tend to be a compromise, being neither the optimal lock nor the optimal seal for a given application.

Barri er seals are sometimes misleadingly called “security seals” in contrast to “indicative seals,” but this is sloppy terminology. Other terms to avoid include “tamper-proof seal” and “tamper-resistant seal.” There is no such thing as a seal that cannot be spoofed, and the idea of “tamper resistance” applies more properly to locks, not seals.

Defeating a Seal

Unlike a lock, cutting a seal off a container is not defeating it because the fact that the seal is damaged or missing will be noted at the time of inspection. “Defeating” or “spoofing” a seal means to open the seal and then reseal the container it is used on without being detected by the inspection process being used.18–20 “Attacking” a seal means undertaking a sequence of actions intended to try to defeat the seal.

Seal manufacturers, vendors, and users typically overestimate the difficulty of defeating their seals. At least 105 different generic methods are available for potentially defeating a seal.20 Those include, for example, piercing the seal open without leaving evidence, counterfeiting the seal, replicating the seal at the factory, changing the serial number, tampering with the database of seal serial numbers, drilling into the seal to allow interior manipulation and then repairing the hole, cutting the seal and repairing the damage, and not installing the correct seal in the first place and then later replacing it with the correct seal. Full counterfeiting is usually the most likely attack on a seal unless the adversary is perhaps attacking a large number of seals or has very limited time to access the seal and its container.

A fundamental fact about tamper detection is that a seal is no better than its “seal use protocol.”1–4, 10–13 The protocol comprises the official and unofficial procedures for seal procurement, shipping, storage, checkout, installation, inspection, training, reporting, disposal, securing of seal data (such as the recorded seal serial numbers), and securing of the seal reader, if there is one. (Typically, 15 seconds of access to either the seal database or the seal reader allows an adversary to defeat one or many seals in one quick effort.) Modest seals used with a good seal use protocol can potentially provide good tamper detection. Sophisticated seals used poorly will not.10, 12, 19, 20

Choosing and Procuring Seals

In choosing a seal, it is important to realize that no seal is unspoofable (just as no lock is undefeatable). There is also no one “best” seal. The optimal choice of a seal depends on the details of your security goals, threats, and adversaries and your personnel and their training; it also depends on the nature of your containers, doors, hasps, physical facilities, and time and budget constraints.

Generally, seals that are complex, difficult to use, or present significant ergonomic problems will be resisted by seal installers and inspectors and will not provide good security.

Every seal needs a unique identifier, such as a serial number, so that an adversary cannot easily swap one seal for another. Independent parts of a seal should have the same serial number if at all possible. Serial numbers should not be easy to erase, dissolve, or buff out (although they often are). Seal vendors and manufacturers ideally should agree contractually not to sell duplicate serial numbers or replicate logos for anybody (even within your organization) who is not on your organization’s short list of authorized seal buyers. Seal users should test if this agreement is honored. Often it is not.

If the seal is fragile [easily broken], be sure to consider environmental conditions and any rough handling the seal may receive. Also bear in mind that robust seals on moving containers can be a safety hazard in that they can gouge eyes or skin or entrap clothing.

Seals should not be chosen based solely on cost per unit. Much higher costs often are associated with seal installation, inspection, removal, and training. With reusable (typically electronic) seals, be sure to factor in the cost of unit failures, battery replacement, and theft, loss, or vandalism of the seal, as well as the costs of protecting and returning the seals for possible reuse.

Seal Inspection and Removal

Unused seals must be carefully protected before they are used, not, for example, just left lying around a loading dock. Seals should be assigned to specific individuals who are responsible for protecting and returning unused seals. Unused seals are potentially very useful to an adversary during an attack or for practicing attacks.

Before a seal is installed, it should be checked for manufacturing defects and for evidence of pre-installation tampering (a “backdoor attack”), which can make it easier for an adversary to open the seal later without leaving evidence.

The door, hasp, or locking mechanism and all sides (including the top and bottom) of the container must be inspected. It makes little sense to seal a container with gaping holes in it or to apply a seal to a door, hasp, or locking mechanism that is faulty. (It is surprising how often people do this.)

Seal Inspection and Removal

The common misconception that unless a seal is either missing or blatantly smashed open, no unauthorized access or tampering has occurred could not be more wrong.14, 19 In fact, even amates can attack seals in a way that leaves little (and sometimes no) evidence.14, 20 Seal inspectors can detect tampering with full reliability.

The views expressed here are those of the authors and should not necessarily be ascribed to Argonne National Laboratory or the U.S. Department of Energy.

© 2012 UChicago Argonne, LLC, Operator of Argonne National Laboratory. Reproduction for personal and educational purposes is authorized.
At inspection time, a seal should be compared side with a similar, unused seal that has been protected from tampering.

Only if they have some idea of the most likely attack scenarios and know what specifically to look for on a given seal. Simply checking to see if the seal is intact and has the right serial number is of limited usefulness unless you are sure no tampering has occurred.

Seals should be inspected carefully both before and after it is removed. Before removing the seal, the seal inspector should also check to see if the seal displays the right serial number.

They are designed this way.

Seal inspectors should always compare a seal side by side with a protected, unused (“control”) seal of the same kind.

(See the photo above.) This is true even for seals that have been repaired.

After a seal is removed, used seal parts must be protected or destroyed so that they cannot be used by an adversary for practicing or executing seal attacks. Ideally, the used seals and seal parts should be saved for some period of time to support a forensic examination if questions arise.

The best seal inspectors seem to have an uncanny sense that something is suspicious about a seal without necessarily knowing what. Such intuition should never be discounted. Security managers should also make sure that seal inspectors are not hesitant to report their concerns.

Sometimes the constellation and delays that a suspicious seal creates for superiors, security personnel, and logistics managers makes front-line employees reluctant to raise their concerns.

Seal inspectors should be tested occasionally with deliberately attacked seals and then heartily rewarded if they detect them. The tests should include both seals that have been blantly attacked and seals that have been attacked with more subtle methods.

Seal inspectors should be tested occasionally with deliberately attacked seals and then heartily rewarded if they detect them. The tests should include both seals that have been blantly attacked and seals that have been attacked with more subtle methods.

Pressure-Sensitive Adhesive Label Seals

After having studied hundreds of pressure-sensitive adhesive label seals, we have concluded that they do not generally provide reliable tamper detection. People like using these “sticky labels” because they are inexpensive and appear to be easy to install and inspect. However, they typically are easy even for amateurs to defeat. If you insist on using adhesive label seals anyway, here are some suggestions.

1. Match the type of adhesive to the surface. The best adhesive for bare metal is not necessarily the best for painted metal, plastic, wood, cardboard, paper, or glass.

2. Feel the surface to which the seal will be applied so that you can detect any substances an adversary might have used to reduce adhesion. Precleaning of the surface with a solvent or detergent water is strongly recommended. Residue from previous adhesive label seals must be fully removed.

3. The surface should not be cold, wet, corroded, or peeling.

4. Full adhesion requires a wait of more than 48 hours. This often makes it easy for someone to lift the seal during the first 2 days without causing damage or evidence of tampering. Heat can help speed up the adhesion process for safety reasons, but be careful not to heat any cleaning solvent that has not yet fully evaporated.

5. Ideally, the adhesive, substrate, and ink should be made of the same material, or at least they should dissolve in exactly the same solvent. However, few, if any, adhesive label seals are designed this way.

6. Consider covering the label seal with a plastic protective sheet or clear protective spray while it is in use.

7. During seal inspection, carefully examine the surface area outside of the perimeter of the seal to look for evidence of attack.

8. The best way to detect tampering with an adhesive label seal is to observe (and smell) as the seal is being removed. The seal inspector, however, must understand how the seal is ordinarily supposed to behave and smell.

9. A blink comparator used with a kinematic mount (to exactly reposition the camera without any necessary adjustment) is an excellent way to compare before and after images of seals to look for tampering. (Contact us for more information.)

10. Manufacturers and vendors often emphasize the unique features of adhesive label seals that they claim are difficult or impossible to replicate. In our experience, these claims usually are quite untrue. However, it usually is not the matter since most adhesive label seals will be attacked by reusing the original seal, perhaps with some artistic, cosmetic, or repair work.

Seals that reveal words like “OPENED” or “VOID” when removed from a surface are largely gimmicks that do not represent serious challenges to an adversary. On the other hand, this feature can be quite effective for flag seals.

ISO 17712

In our view, existing standards for tamper-indicating seals are not very helpful. We believe that ISO [International Organization for Standardization] 17712, the new international standard for freight seals, does a particularly serious disservice to effective tamper detection. ISO 17712 formalizes flawed concepts, encourages misunderstandings, and perpetuates the idea that adhesive label seals are so inexpensive that they can be used to solve international seal issues, and compromises cargo and homeland security. We are preparing a detailed critique of this standard, but our advice in the meantime is not to be overly confident about seals that meet the ISO 17712 standard.

Better Seal Training

Because of the shortage of good training materials on how to use seals effectively, we are in the process of preparing a training video that discusses and demonstrates good seal use protocols in general. This video was scheduled to be available on the Internet in June. (See endnote 17.) The best advice and training for tamper detection, however, is always specific to the relevant seals and the security application of interest. We are available to provide seal and cargo security advice for legitimate organizations that face security and tampering issues.

If used effectively (that is, with a good use protocol) and with a realistic understanding of their capabilities and vulnerabilities, seals can provide fairly reliable tamper detection. But they are not a simple-minded, silver bullet for tamper detection or logistics security. We believe that much better seal designs are possible.\textsuperscript{2, 5, 11, 17}
1015−1028. nrc.gov/docs/ML1018/ML101800504.pdf.

INTRO.

Ancient Seals Secure?


The Race to 1 September

While deployed to Iraq, the 1st Armored Division was tasked with training, mentoring, and assisting Government of Iraq security forces while simultaneously executing a large-scale drawdown.

O n 27 February 2009, President Barack Obama directed the Department of Defense to reduce the total number of military personnel deployed in Iraq to 50,000 by 1 September 2010. The directed cut of 50,000 troops in Iraq required the 1st Armored Division, U.S. Division–Center (USD–C), to reduce its footprint from 5 brigade combat teams (BCTs) and 1 combat aviation brigade (CAB) to 2 BCTs without a dedicated CAB. This reduction took USD–C from about 19,000 troops to about 7,000.

The purpose of this article is to provide an example of a successful retrograde of forces from a combat theater. The techniques that the 1st Armored Division used in Iraq can possibly be replicated as the drawdown in Afghanistan is being planned. The challenge that must be met is how to maintain focus on partnership operations while building and executing a drawdown plan and providing the division command group the flexibility required to react to the ever-changing operational environment (OE). This article focuses on how USD–C built operational flexibility into the plan and how the division used that flexibility to react to change in the OE.

The Background

The drawdown plan executed in Iraq can be understood only within the strategic context of time. President Obama had decided to increase the focus of wartime operations in Afghanistan, resulting in additional forces being deployed to Afghanistan from home station locations. The timing of the surge deployment coincided with drawdown operations that were already planned in Iraq, as directed in the Iraqi Security Agreement approved by the Iraqi Presidential Council on 4 December 2008. This agreement required that all U.S. forces exit the country no later than 31 December 2011. President Obama added the further requirement that no more than 50,000 U.S. troops would remain in Iraq after 1 September 2010. Consequently, the strategic defense transportation system had to be prepared to support the drawdown operations in Iraq while simultaneously surging troops and supplies into Afghanistan.

The OE and mission in Iraq also required that U.S. forces remain involved in training, mentoring, and assisting Government of Iraq (GOI) security forces up until the last possible moment. These operations served two goals in support of one end state. The first goal was to help the GOI security forces for as long as possible until the final drawdown took place. This was done to increase the likelihood that the security forces would be able to deal with the internal security situation in Iraq and deter possible aggressive action from external actors after the U.S. troops’ departure. The second goal was to increase U.S. situational awareness of the OE during operations. Without having troops partnered with the GOI security forces, U.S. commanders would have a severely degraded understanding of the security situation on the ground. The lack of understanding would hinder their ability to direct the drawdown in a manner that simultaneously achieved the directed benchmarks and reduced risk to the force.

The Waterfall

The drawdown was frequently described as a waterfall because, when it was depicted in a bar graph, the precipitous drop in troop numbers over time resembled a waterfall. From the high of about 19,000 troops, the division shed about 12,000 troops in 6 months. This had to be done in a way that avoided gaps in partnering operations and maintained pressure on the enemy. Some transportation assets had to be shared with the two other divisions in theater and the separate corps units, which were all going through similar personnel and equipment reductions.

The primary USD–C focus was on elements in the Al Anbar Province and it would remain in place until sometime in 2011. Although it would lose many “below-the-line units” (units that are smaller than a brigade), the mission for an advise and assist brigade (AAB) would remain until well into 2011. When the plan was first developed, USD–C leaders decided that brigades would be pulled from the area of operations in two ways. The first way was to sim-
Directly by the division.

were direct-support assets, which could not be tasked.

CAB executed the work of three CABs and the assets.

control as the theater CAB. This was significant because,

from USD–C control to U.S. Forces–Iraq (USF–I) control.

Province. The 1st Air Cavalry Brigade conducted a

shifted their battlespaces to cover the rest of Baghdad

Division, while the remaining BCTs in the USD–C OE

ater, it essentially conducted a relief in place with both

4th Stryker Brigade Combat Team, 2d Infantry Divi-

sion (4–2 SBCT), and the 2d Infantry Brigade Combat

Team, 10th Mountain Division (2–10 IBCT), would

sion (4–2 SBCT), and the 2d Infantry Brigade Combat

Base Control Group, the expeditionary sustainment

command, 1st CAB, Army rotary-wing assets, particularly

the CH–47 Chinooks, would be severely taxed.

Opening up Taji as a permanent fixed-wing hub had
two effects. The first was that it reduced the require-
manship being placed on CH–47s, allowing them to be
dedicated to other actions. The second was that it al-

owed the redeploying units stationed at Taji to bypass

and backscatter screening and only a 10-percent hands-on

Central Command area of responsibility.

By changing the customs clearance process from a
100-percent hands-on examination to a 90-percent
backscatter and on-site electronic examination, the
throughput level was dramatically increased.

The technology was in place, throughput could be increased by decreasing the overall process
timeline. USF–I sent out a Lean Six Sigma expert to
study the process and develop a more efficient process.

When the new process was coupled with the technolo-
gical improvements, it reduced the time it took to process
an item from 50,000 persons per day to 0 persons per hour.

The second way operability was created was by using commercial carriers, including local-
national-owned carriers and multinational corporation

The 4–2 SBCT's Last Patrol provided USD–C with multiple first-order benefits. The first was that, since
the patrol required a large portion of its combat power to
safely move to Kuwait over the roads, the bridge
maintained its combat power until the last possible mo-
moment. This increased USD–C's combat power during
the political stalemate while still meeting the 50,000
quota and having the troops out of Iraq by 1 September.

The second effect was that it allowed the

Embarrassing the logistics effort required in order to support the
redeployment. The patrol essentially halved the number of Air Force flights required, reduced the number of
required rotary-wing flights to near zero, and allowed the expeditionary
sustainment command to provide lift capability to other units redeploying.

When 1 September arrived, USD–C had accompli-
sed its tasks to reduce its footprint from about
19,000 to 7,000 troops and redeploy or turn in over
10,000 pieces of equipment. It did so while main-
taining its focus on partnering operations, supporting
the Iraqi national elections, and providing operational
flexibility to senior commanders to respond to situa-
tions as they arose. This accomplishment laid the
ground work for the next drawdown that took USF–I from
50,000 to 0 troops by 31 December 2011.

The 4th Stryker Brigade Combat Team, 2d Infantry Division
had been opened intermittently to allow for Air Force
rotary-wing flights to near zero, and allowed the logistics effort required within Iraq to support the
redeployment. The patrol essentially halved the number of Air Force flights required, reduced the number of
required rotary-wing flights to near zero, and allowed the
expeditionary sustainment command to provide lift
capability to other units redeploying.

On 7 March 2010, the Iraqi people went to the polls
to elect a new national government. Although the elec-
tion itself was successful (the population was able to
safely exercise its right to vote), it resulted in a near-tie
among the leading parties and months of deadlock.

The political deadlock changed the strategic environ-
mant that USD–C needed to support. The senior
commanders came to the understanding that the
basic construct of the force was no longer appropri-
ate. Instead, they decided to delay the redeployment of
certain units in order to assist the GOI security forces
in providing security during the political stalemate.

Two USD–C BCTs had to delay their redeploy-
ment plans. The 2–10 IBCT (from 19,000 to 7,000
soldiers) was to leave at the end of the month. The
2–10 IBCT maintained its mission, and a revised, condensed
flow of forces out of the theater was planned. The 4–2 SBCT
offered to make use of the enhanced mobility that
USD–C had with the remaining five logistics battalions
out of Iraq to support the Baghdad area and then return
instead of by fly. This extended the amount of time that
the BCT had to conduct partnership operations. The
operation became known as “the Last Patrol,” and the
4–2 SBCT was the last combat unit to leave Iraq. All
remaining troops would be there to advise and assist.

The plan to redeploy 2–10 IBCT out of theater was
already underway, with the turn of occupied and real estate
in Baghdad to the GOI, and the requirement to
develop the airfield until it reached 365 days in
theater. The operational flexibility that USD–C had
built into the initial plan allowed for a change like this to
take place at the last minute.

With the 4–2 SBCT conducting the Last Patrol, the
overall requirement for units to fly out of Al Asad
and Baghdad was substantially decreased. This increased
the availability of both Air Force tactical fixed-wing
assets and commercial airlift assets out of Al Asad. In
the end, it essentially conducted a relief in place with both
the Iraqi and coalition partners.

The 2–10 IBCT's redeployment was shifted to a
later date and the amount of time it needed to leave
the theater was condensed, meeting the commander’s intent.

The 4–2 SBCT's Last Patrol provided USD–C with multiple first-order benefits. The first was that, since
the patrol required a large portion of its combat power to
safely move to Kuwait over the roads, the bridge
maintained its combat power until the last possible mo-
moment. This increased USD–C's combat power during
the political stalemate while still meeting the 50,000
quota and having the troops out of Iraq by 1 September.

The second effect was that it allowed the

Embarrassing the logistics effort required in order to support the
redeployment. The patrol essentially halved the number of Air Force flights required, reduced the number of
required rotary-wing flights to near zero, and allowed the expeditionary
sustainment command to provide lift
capability to other units redeploying.

When 1 September arrived, USD–C had accompli-
sed its tasks to reduce its footprint from about
19,000 to 7,000 troops and redeploy or turn in over
10,000 pieces of equipment. It did so while main-
taining its focus on partnering operations, supporting
the Iraqi national elections, and providing operational
flexibility to senior commanders to respond to situa-
tions as they arose. This accomplishment laid the
ground work for the next drawdown that took USF–I from
50,000 to 0 troops by 31 December 2011.

Lieutenant Colonel Robert King is currently attending the Army War College. He served as the 1st Armored Divi-
sion’s G–4 and U.S. Division–Center G–4 in Baghdad in 2010. He holds a bachelor’s degree in business management from the University of Florida, and a master’s degree in armored command and control from Florida Institute of Technology. He is a gradu-
ate of the Quartermaster Officer Basic Course, Combined Logistics Operations Advanced Course, and Command and General Staff Officer’s Course.

Captain Leonard B. Della-Moretta III was the assistant division transportation officer for the 1st Armored Division and U.S. Division–Center. A trans-
former from the Armor Center to Infantry, he holds a B.A. degree in political science and international relations from the University of Kansas.
What “Right” Looks Like

Soldiers learn procedures by watching and imitating their leaders. Therefore, leaders should ensure they are setting a good example by following correct procedures and focusing on doing things right.

The commander of a company, troop, or battery has many responsibilities, but none is more important than ensuring that the members of his unit know what “right” looks like. If you are preparing to assume the duties and responsibilities of command, or if you have recently assumed command, you may be wondering if you really know what right looks like.

The answer to this question will depend a great deal on the battalion and company commanders you have served under or observed before you took command. If your own commanders set the right example, you probably do know. This article outlines several actions to assist you in making sure that your own Soldiers (both officers and enlisted) know what right looks like.

Chain of Command

First, never miss an opportunity to reinforce the chain of command. Your unit’s chain of command will be no stronger in combat than you make it in garrison and during training events. Does your first sergeant personally bring the deficient weapons to standard. The unit armorer should receive weapons into the arms room when the platoon sergeant says they are ready. The unit armorer should inspect weapons for cleanliness after they are in the arms room and report unsatisfactory weapons to the first sergeant and executive officer. One or both of these individuals should then inspect the weapons identified by the unit armorer.

When weapons are inspected by the first sergeant or executive officer and found to be unsatisfactory, the appropriate platoon sergeant and squad leader should personally bring the deficient weapons to standard. The platoon sergeant and squad leader, not the Soldier, should clean the deficient weapons to standard. Experience tells me you will need to do this only once before weapons not being cleaned to standard ceases to be an issue. To set the conditions for success, ensure sufficient weapon cleaning supplies are on hand and available to the Soldiers.

Licensing Procedures

Third, inspect licensing procedures in your unit. Specifically, who says a Soldier can operate the equipment you have entrusted to the platoon’s leaders? Whether operator training and licensing are performed within your unit or centralized at another level, the platoon leader and platoon sergeant are the individuals you should hold accountable for ensuring that the unit’s equipment is operated correctly and safely. This being the case, these two individuals should also be the approving authority for who operates equipment.

Who should operate equipment is different than who should be licensed. Licensing is an administrative requirement to ensure that a Soldier receives appropriate operator training and demonstrates appropriate equipment operating skills in front of an individual who is authorized to issue operator licenses. The platoon’s leaders should determine who will operate the platoon’s equipment and ensure that all Soldiers are knowledgeable and skilled in operating that equipment.

Unit Formations

Fourth, conduct all unit formations according to Field Manual (FM) 3–21.5, Drill and Ceremony. Junior rank- ing Soldiers (both enlisted and officer) will learn what is right by watching how you and your first sergeant execute formations. If you operate your formation according to FM 3–21.5, you will ensure your Soldiers know what right looks like in the eyes of professionals.

Maintenance

Fifth, pay attention to maintenance. A great number of areas can and should be checked to determine if your unit knows what right looks like when it comes to maintenance. Start by learning what your vehicle operators know about their vehicles and maintenance shop operations.

If your unit operates high-mobility multipurpose wheeled vehicles, ask if checking for water in the fuel is a “before” or “after” preventive maintenance check. Does each vehicle have a rubber hose attached to the fuel drain valve? Has the unit provided operators with transparent containers for fuel samples? Where do they dispose of samples containing water?

If an operator does not say that checking for water in the fuel is an after-operations check, ask for the reference in the operator’s manual. This action will do two things for you: It will let you know if the operator has an operator’s manual, and you will be able to show the operator where to find the correct information in the manual.

If the operator says he has a rubber hose attached to the fuel drain valve, have the operator show it to you so you can judge whether or not the hose is of sufficient length to allow fuel to be drained without spillage. If an operator lacks this item, have the operator show you how he drains fuel to check for water without spillage. The unit should have issued the operator a transparent container to collect the draining fuel. If the unit has not issued such containers, have the operator show what he uses to collect a fuel sample and how he inspects it for water at the bottom of the container.

The unit is responsible for providing a location for operators to deposit contaminated fuel samples. If these contaminated fuel sample collection stations are not convenient, some operators will dispose of their contaminated samples in an environmentally unfriendly manner.

Duty Rosters

Finally, pay attention to duty rosters. Are they posted a minimum of 10 days before the date the duty will be performed? I suggest 10 days since this will generally give Soldiers sufficient time to cancel prepaid activities and receive refunds. Does your unit maintain a weekend duty roster for unscheduled tasks, or are the personnel who happen to be in the barracks tasked? If such a duty roster exists, does it include all unit personnel or just those in the barracks?

Unscheduled weekend tasks are assigned to the unit, not just to the personnel who happen to be in the barracks. The weekend roster for unscheduled tasks should include all nonexempt personnel within the unit, and these individuals should be required to meet a recall time standard to perform the duty.

These six actions provide a starting point for evaluating your unit’s understanding of what right looks like. As you execute the duties and responsibilities of command, remember that the junior Soldiers in your unit, both officer and enlisted, will depart your unit thinking they have seen what right looks like. Your responsibility is to ensure that they have.

MAJOR GENERAL LARRY J. LUST, USA (Ret.), is an associate professor at the Army Command and General Staff College. His previous duty positions include Assistant Chief of Staff for Installation Management, Headquarters, Department of the Army (HODA); Assistant Deputy Chief of Staff, G–4, HODA; J–4/7, Headquarters, U.S. European Command; Deputy Chief of Staff, G–4, Headquarters, U.S. Army Europe; and Commanding General, 4th Corps Support Command, V Corps. He has a master’s degree in logistics management from Florida Institute of Technology.

Army Sustainment
General O'Connor, noting the return to a tiered readiness, the mission force pool, the rotational force pool, and the right level and of course at the right time. "

Our Army, so we need to have the right force ready at the time. We know there's a significant fiscal constraint imposed on our Army, so we need to have the right force ready at the right level and at the right time."

The Army Chief of Staff approved a new ARFORGEN model on 28 April. This model includes three force pools: the mission force pool, the rotational force pool, and the operational sustainment pool. "The old model attempted to manage the entire force in one pool, and the new model again has three," said General O’Connor, noting the return to a tiered readiness model. The mission force pool distributes forces to a high-
demand requirement and to theater-assigned forces that do not have sufficient force structure to be progressive. Units in this pool, including those in Korea and other forward-deployed locations and any "low density unit that must be at a high state of readiness at all times," will be required to attain progressive readiness and stay sustained.

The rotational force pool includes units in and ready to enter Operation Enduring Freedom, Kosovo Force, and other rotational missions. The operational sustainment pool is made up of National Guard divisions, the 21st Armored Division, the 11th armored Cavalry Regiment, and other units that are required to meet operational requirements and to maintain a level of readiness in a "modified progressive" status. General O’Connor noted that these units can be pulled up into the available pool at any time but will be maintained at a lower state of operational readiness. "You’re starting to hear the word ‘rotational Army force,’" said General O’Connor. "We’re going to align brigades to reach into CENTCOM [the U.S. Central Command] to Southeast Asia to the Pacific, and then it will be the XVIII Airborne Corps expeditionary forces. So you’re going to be aligned, and that’s how you’re going to set your conditions for future training."

While the old ARFORGEN model was based on a supply base by default (generating a set amount of capability and capacity every year unless it is required to produce more), the new model is demand based. It activates only the forces needed to meet operational requirements.

### Operational Energy Panel Outlines Initiatives for Greater Flexibility on the Battlefield

The Army Sustainment Symposium panel on operation-
al energy outlined the challenges energy creates and the many options operational energy initiatives provide commanders in the warfight.

Colonel Paul E. Roege, chief of the Army’s new Operation Energy Office under the Deputy Chief of Staff, G–4, Department of the Army, chaired the panel and noted that operational energy is a fundamental operational capability and makes the FM–4–30–1, Army Operational Energy, pervasive in our energy management systems. That’s going to be sort of pervasive in our energy management approach," said Colonel Roege. "Today on the battlefield, our commanders don’t have that situational awareness in terms of operational energy, so we’ve got to give them the ability to just see where do I stand, when do I need to refuel, what kind of alternatives do I have available and just blend that into their operational activities, planning, and execution."

Fielding of new technologies, including solar panels, water reuse systems, and new advanced medium-size mobile power sources (which have saved a fifth of a gallon of fuel per hour of use and 4,800 gallons over the life of a 10-kilowatt generator), to FOBs have been the focus of initial operational energy initiatives. But changes to major systems, including the M1 Abrams tank and helicopters, are also coming. "We’ve got an improved turbine engine program that we are going to build into our Black Hawks and Apache aircraft that’s going to save 20 percent on fuel consump-
tion,” said Colonel Roege. He noted that the system change will also provide greater coverage of more terrain and better system performance. The Bradley fighting vehicle also will receive drive train improvements to reduce fuel consumption and make it more maneuverable.

Anyone interested in more information on Army Operational Energy projects can visit the Army Capabilities Integration Center webpage on operational energy located at www.arcc.army.mil/operational-energy.html.
Logistics Leaders Outline Force Design Changes

During the Symposium, held in Richmond, Virginia, this May, key Army sustainment leaders laid out how Army units will change to become the Army of 2020. Brigadier General John R. O’Connor, the Deputy Chief of Staff, G-4, for the Army Forces Command (FORSCOM), said that no later than fiscal year (FY) 2015, force structure reductions and equipment retrograde are expected to facilitate increased readiness and the ability to conduct home-station training. In the years that follow, FORSCOM’s predominant readiness focus will be contingency mission sets.

“Not later than FY 16, sufficient joint, intergovernmental, multinational, and interagency capabilities will be available to corps and divisions,” said General O’Connor. “Not later than [FY] 17, end strength decreases for the Active component will be at 490,000, Army National Guard 450,000, and USAR [the Army Reserve] at 205,000.”

To support Army structure changes, the “Army 2020” effort shapes the force to meet the operational environment with this smaller end strength. Major General James L. Hodge, the commanding general of the Army Combined Arms Support Command, explained that under this design all brigade combat teams (BCTs) will include a third maneuver battalion. According to General Hodge, maneuver commanders also want a brigade engineer battalion (BEB) in each Stryker, infantry, and heavy BCT.

“So we’re looking at converting special troops battalions into BEBs for those formations,” said General Hodge. He noted that reductions in engineer vertical and horizontal capabilities inside of the BCT are being considered. So are eliminating military police and combat observation/lasing teams from the BCTs and migrating those capabilities to echelons above brigade.

Within the sustainment community, moving capabilities out of the brigade support battalion formations is being considered for water production, infantry troop transport, bulk fuel, and some distribution provided by heavy expanded-mobility tactical trucks.

“We’ll migrate that out of the BCT in order to help keep the force size where we want it,” said General Hodge. “And we’ll move those capabilities to echelons above brigade.”

In regard to fuel distribution, General Hodge noted that there is concern that so much echelons-above-brigade capability resides in the Reserve component, including petroleum, oils, and lubricants (POL) planning at the expeditionary sustainment command and theater sustainment command levels.

“Some of the specific gaps associated with it are early-entry tactical receipt distribution, mission command, POL liaison, quality assurance and quality supervision, the engineer oversight that you need when you put in the IPDS (the inland petroleum distribution system), and of course, some technical expertise at all echelons,” said General Hodge.

This is why a force design update (FDU) is currently underway for POL. Also undergoing review is the military occupational specialty 92Y (unit supply specialist) force design, which is expected to improve property accountability as units return to the unit maintained equipment program.

“We’ve identified through our processes that we have a significant gap in terms of something as simple as the basic number of Soldiers who are in company-level supply rooms,” said General Hodge. “This FDU gets at a phased approach of getting the right numbers of our Soldiers to work in the supply rooms to handle the tremendously significant number of transactions that they have to handle.”

Armed Services/Army

Army Acquisition Corps Continues to Grow

Despite the overall downsizing trend the Army will see in coming years, the Army Acquisition Corps is expected to double its workforce by the end of fiscal year 2013. The corps continues to seek qualified officers and noncommissioned officers (NCOs) to be part of its ranks. Officers should be in their 6th or 7th year of service and be a captain who is branch qualified in another specialty in order to transfer to functional area 51. On the NCO side, the Acquisition Corps is seeking sergeants and staff sergeants with less than 10 years of service who are in balanced or overstrength military occupational specialties (MOSs) to transfer to MOS 51C (acquisition NCO).

Interested Soldiers should send a reclassification packet through their appropriate human resources channels. The Army Acquisition Support Center at Huntsville, Alabama, holds quarterly boards to select the best-qualified Soldiers.

Tropic Drawdown Turns Sustainment Leaders’ Focus to Property Accountability

As units prepare to leave Afghanistan and budgetary constraints tighten, sustainment leaders are placing more emphasis on property accountability. During the Army Sustainment Symposium, Lieutenant General Raymond V. Mason, the Deputy Chief of Staff, G-4, Department of the Army, told attendees that a task force led by Major General Timothy P. McHale has returned a report on the

PROFESSIONAL DEVELOPMENT

New Commander’s Emergency Response Program Course Launched by the Army Financial Management School

A new and extensive distance learning course has been developed to support the Commander’s Emergency Response Program (CERP). Authorized by Congress, CERP has allowed deployed military commanders to determine how U.S. tax dollars will be used to meet rising humanitarian relief and reconstruction requirements for local populations in Iraq and Afghanistan.

During development, the new CERP course was under the management of the Army Financial Management School and the Training Development Directorate of the Army Soldier Support Institute. Although the initial CERP courseware launched in 2009 was only a 16-hour distributed learning course, the new course contains 62.5 hours of interactive multimedia instruction.

The CERP course consists of six tracks:

☑ Track 1, CERP Foundation
☑ Track 2, CERP for Commanders.
☑ Track 3, CERP for Resource Managers.
☑ Track 4 CERP for Project Managers.
☑ Track 5, CERP for Purchase Officers.
☑ Track 6, Paying Agent Operations.

Once the first track is completed, students can enroll in any of the follow-on tracks, and they can be taken in any order. Having the option to opt-out of tracks will alleviate redundant training for students who have previous training and experience in CERP.

CERP training is designed for Active Army, Army National Guard, Army Reserve, and sister services supporting CERP in predeployment training environments and theater missions. The new CERP training can be accessed through the Army Learning Management System.

The Training Development Directorate’s point of contact for CERP training is A.D. Denson, who is available by telephone at (803) 751–8295 and by email at a.d.denson.civ@mail.mil.

Last Mine-Resistant Ambush-Protected Vehicle Out of Iraq Moves to Fort Hood

The last mine-resistant ambush-protected vehicle driven out of Iraq was loaded onto the Ocean Crescent on 24 March at the sea port of debarkation in Kuwait. The vehicle was en route to Fort Hood, Texas, to be put on display at the 1st Cavalry Division Museum.
General Mason. “We want to really leverage the skill sets in taking care of equipment too. Maintenance, deployment, and contracting will play major roles in building the capability where we’re going to put it back into the hands of our units, so you can see the steep decline in having a contract in FY 10 to a now projected $91 million in FY 11.”

“Under the UME contract, costs have been reduced $600 million in FY 10 to $414 million in FY 11, and the macrolevel. “The readiness of our fleets is actually up to 124,000 radio-frequency identification tags a month.”

One area the G–4 is focusing on to improve property accountability is a move back to the unit maintained equipment program (UME). General Mason said that while letting the Army Materiel Command and contractors manage equipment made sense in the short term, it came with unintended consequences, including a lack of individual responsibility for equipment.

One positive that has resulted from the Army’s years at war is the state of readiness of its vehicle fleet. General Mason noted that before 9/11 the Army’s vehicle fleet was only at 70 percent capacity. It is now at 90 percent at the macrolevel. “The readiness of our fleets is actually up to 124,000 radio-frequency identification tags a month.”

According to Brigadier General John R. O’Connor, the Deputy Chief of Staff, G–4, for the Army Forces Command, 93 percent of deployed units will be executing UME by the end of fiscal year (FY) 2012. By FY 2013, 100 percent of units will be inducted into the program. “[The] Army Sustainment Command will continue to offer contract maintenance and accountability augmentation to those forces as required,” said General O’Connor. “Under the UME contract, costs have been reduced $600 million in FY 10 to $414 million in FY 11, and the macrolevel. “The readiness of our fleets is actually up to 124,000 radio-frequency identification tags a month.”

MC4 partnered with the Logistics Exercise and Simulation Directorate, the material developer for the Joint Deployment Logistics Module (JDLM), to integrate SMDS into JDLM. This integration has brought medical personnel deeper into training scenarios by making it possible for clinicians to track patient flow from role 1 to role 3 units during training. The integration also let medical leaders determine if a nuclear-enhanced conventional weapon has been employed or if a chemical, biological, radiological event has taken place. SMDS also allows senior medical staff officers and medical mission command units to participate in large joint simulation training exercises using their go-to-war system.

In-Transit Visibility Equipment Recovered From Iraq

Along with the departure of troops and equipment from Iraq came the removal of fixed radio-frequency in-transit visibility readers throughout the country. Product Manager, Joint Automatic Identification Technology has recovered and redistributed the readers to meet requirements in Afghanistan and other locations and reassigned the supporting field service engineers who were stationed in Iraq.

At the peak of operations, 118 fixed reader sites throughout Iraq were reading and reporting information on up to 124,000 radio-frequency identification tags a month.

New MC4 Training Tool Simulates Medical System Used During Deployment

Medical Communications for Combat Casualty Care (MC4) has developed a simulation tool called the Simulation Medical Data Server (SMDS) that provides simulated data to the mission command application used by the medical community during deployments, the Medical Situational Awareness in the Theater (MSAT) portal. MSAT is the joint automated solution that serves as the joint medical community’s mission command system.

SMDS has the capability to provide operations and clinical operations sections with real-time information about casualties during simulation exercises. It has also been successfully integrated and synchronized with the casualty information resident within current battlefield simulators.

MC4 partnered with the Logistics Exercise and Simulation Directorate, the material developer for the Joint Deployment Logistics Module (JDLM), to integrate SMDS into JDLM. This integration has brought medical personnel deeper into training scenarios by making it possible for clinicians to track patient flow from role 1 to role 3 units during training. The integration also let medical leaders determine if a nuclear-enhanced conventional weapon has been employed or if a chemical, biological, radiological event has taken place. SMDS also allows senior medical staff officers and medical mission command units to participate in large joint simulation training exercises using their go-to-war system.

Correction

In the May–June 2012 issue of Army Sustainment, the caption for the cover included an incorrect date. The Ordnance Corps Bicentennial was 14 May 2012, not 24 May 2012 as stated in the caption.

Also, the captions of the photos on pages 53 and 54 are reversed. The photo on page 53 shows an M1 Abrams tank being loaded onto a flatbed trailer. The photo on page 54 shows a piece of engineer equipment being loaded onto a trailer.