

JANUARY–FEBRUARY 2013

ARMY SUSTAINMENT

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ARMY SUSTAINMENT

ON THE COVER



In February 2012, the 331st Transportation Company, 11th Transportation Battalion, 7th Sustainment Brigade, from Fort Eustis, Virginia, conducted cargo operations on the MV *Green Wave* causeway during Operation Deep Freeze 2012 in Antarctica. The story beginning on page 33 describes this mission, which tested the Soldiers' skills operating in extreme weather while providing supplies to scientists stationed in the region. The story beginning on page 29 describes another unique cold weather logistics operation conducted by the 17th Combat Sustainment Support Battalion in Alaska. (Cover photo by CPT Christina Shelton)



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“Operationally, the Army of 2020 will be characterized by the redeployment of the force to a garrison environment while remaining expeditionary in nature and postured to deploy rapidly and win.”

Major General Larry D. Wyche
Commanding General, CASCOM

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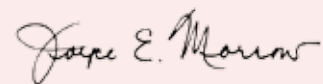
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Sustaining the Army of 2020

By Major General Larry D. Wyche

After a decade of sustained conflict, the U.S. military must reposition itself to engage a world that has substantially changed since the terrorist attacks of 2001. With the conclusion of the Iraq war and a target of 2014 to withdraw from Afghanistan, the U.S. military is focusing on reshaping its force structure and preventing conflicts in other parts of the world, most notably the Far East. The Army must adapt to meet these evolving requirements.

In 2011, Chairman of the Joint Chiefs of Staff General Martin E. Dempsey (then Chief of Staff of the Army) outlined his vision for the Army of 2020. With “Army 2020,” he launched an initiative to transition the Army to address the security challenges for 2020 and beyond. Changes in the structure of the brigade combat team (BCT), its equipment, and training are at the heart of Army 2020. Operationally, the Army of 2020 will be characterized by the redeployment of the force to a continental United States environment while remaining expeditionary in nature and postured to deploy rapidly and win.

Sustainment 2020 Initiatives

The sustainment community has a number of initiatives to develop and implement the Army of 2020 Sustainment Strategy. This article highlights three ongoing key initiatives: sustainment force structure proposals, the rewrite of Department of the Army Pamphlet (DA PAM) 600–3, and the Global Logistics Concept effort.

Sustainment Force Structure

We are redesigning our combat sustainment support battalions (CSSBs) to support pending changes within the BCT designs. The Army 2020 concept is making several changes to the BCT, and our sustainment strategy will likewise evolve. In an era of diminishing resources, and in order to meet the active force end-strength reduction, logistics capabilities may be shifted to echelons above brigade (EAB) in order to balance the BCTs. Capabilities such as water purification, some bulk fuel distribution and storage, and troop movement may migrate to EAB, either in part or completely. These proposed “pass-backs” create tactical-level sustainment gaps that must be addressed while offering an opportunity to provide these capabilities in a more efficient manner.

The Combined Arms Support Command’s Force Development Division is analyzing the pass-backs, conducting gap analyses, and reviewing lessons learned from the past 10 years of war to ensure sustainment forces are

postured to support Army 2020. A key aspect centers on habitually aligning selected logistics capabilities with 3 corps-aligned CSSBs and 10 division-aligned CSSBs in the active force and 8 division-aligned CSSBs in the Army National Guard. Each CSSB would be designed with the same core capabilities—supply, fuel, water, transportation, and maintenance—to support units located in a corps or division.

Using area support, CSSBs would simultaneously support BCTs and division or corps EAB units. This provides agility and economies of force to meet the sustainment requirements of units on the battlefield without compromising the responsiveness or effectiveness of support. In addition to supporting the tactical fight, this approach improves home-station operations by dedicating support assets to major installations and providing a capability set at home station.

We are also addressing other sustainment gaps, including the lack of forward support companies in the Stryker BCTs, duplication of effort in the brigade support battalion of the fires brigade, a need for standard human resources companies in each sustainment brigade, and a lack of habitual relationships between sustainment units and supported units.

The goal is to make most of these changes transparent to the warfighter. By making these organizational and support relationship changes to the current sustainment formations and operating principles, the Army leverages efficiency and flexibility while providing the same—and in some cases, better—support to the maneuver force. These changes are pre-decisional at this point but have the full support of the Training and Doctrine Command (TRADOC) and Army Headquarters staffs.

DA PAM 600–3

As we navigate our way forward to 2020 and beyond, we are rewriting DA PAM 600–3 to provide our logistics officers with a roadmap to guide their careers. We’ve learned from 11 years of war that our logistics warriors must continue to be tactical experts and have detailed knowledge of the entire sustainment operational environment, which includes operations and strategic formations as well as the industrial base. Understanding these organizations, capabilities, and limitations requires a different way of thinking about how we develop our logisticians in support of Army 2020.

Once officers complete their developmental requirements, they will be encouraged to pursue broadening

assignments. These assignments challenge officers mentally and, in many cases, place them outside of their comfort zone to develop adaptive leaders with critical thinking skills. Officers compete for, or are assigned to, broadening experiences as senior captains, majors, and lieutenant colonels. They are encouraged to compete for normative broadening assignments through advanced civilian schooling, training with industry, fellowships, internships, theater logistics planning, red teaming, and the like.

Broadening is linked to talent management, which incorporates, recognizes, develops, and manages each officer's unique skills. Our leaders are expected to identify talents and mentor officers to pursue broadening opportunities in appropriate areas.

The new DA PAM 600-3 will ensure officers know the correct path to gain the training, education, and experiences they need to lead and implement the Army of 2020 Sustainment Strategy. It will also ensure that senior leaders have the information they need to mentor and produce the type of officers needed for 2020 and beyond.

Global Logistics Concept

The Army Materiel Command, the Forces Command, TRADOC, Army Special Operations Forces (ARSOF), and others are working a collaborative effort on the Army 2020 Global Logistics Concept (GLC). The purpose of the GLC is to assess the future operational environment in order to identify doctrine, organization, training, materiel, leadership and education, personnel, and facilities solutions for recognized gaps.

The GLC addresses gaps in five areas: industrial base capability and capacity to meet emerging requirements, unity of effort to optimize support for forces from home station through contingency operations, better integration of ARSOF, integration of the Army into joint logistics capabilities and vice versa, and rapid integration of ready Reserve component (RC) sustainment units in support of future Army requirements.

Dear Sustainers,

I have the privilege of serving as Chairman of the Board of Directors for *Army Sustainment*, our preeminent professional journal.

Over the next several issues of the journal, I will be sharing, in close coordination with Army Materiel Command, Forces Command, and other stakeholders, a series of articles that detail how the sustainment community is putting the pieces in place for a holistic approach to developing a comprehensive sustainment strategy in support of Army 2020.

As we work to tackle these sustainment challenges and opportunities, I encourage your input, discussion,

The GLC sustainment white paper takes a critical look at the gaps listed above and other issues that affect sustainment organizations at all levels. It also outlines a strategy for how the Army can better work with industry, strategic, and joint partners to provide effective and synchronized sustainment for the next conflict.

The sustainment white paper is the prelude to the next Army Functional Concept for Sustainment. The functional concept will allow the TRADOC force modernization processes to fully analyze and understand the impacts on sustainment in the future while identifying sustainment capabilities for Army 2020. Those processes will pave the way for implementing changes to ensure sustainment is postured, prepared, and ready to meet the uncertainties of tomorrow that will allow us to prevent, shape, and win in support of unified land operations.

As sustainers, we have performed tremendously over the last 11 years, but we cannot rest on our laurels. There is work to be done. Collectively, as a logistics community, we are working the sustainment strategy very hard. I am confident that the sustainment strategy that we are developing and employing will yield the dividends to support and sustain our great Army.

I look forward to our continued dialogue in future articles, as we address the details of the Army of 2020 Sustainment Strategy. Future articles will include discussions of professional credentialing programs, skills-based training, Global Combat Support System-Army, force structure changes, leader development, ARSOF integration, joint logistics capabilities, and RC integration, just to name a few. As we further develop our concept, we will leave no doubt that the sustainment community remains laser-focused on supporting the warfighter.

Major General Larry D. Wyche is the commanding general of the Combined Arms Support Command and Sustainment Center of Excellence at Fort Lee, Virginia.

and even debate. As part of the Army's sustainment think tank and premier learning institution, *Army Sustainment* is an appropriate vehicle in which to carry on the discussions that affect our community and Army.

You, along with leaders at all levels, have the knowledge and experience necessary to help us advance and adapt. I encourage you not only to read *Army Sustainment* but also to submit your ideas, thoughts, and suggestions for how we can do things better.

Support Starts Here!

LARRY WYCHE
Major General, U.S. Army
Commanding

Logistics Misconstrued

By Dr. Chris Paparone

For the past few years, U.S. military doctrine developers have been busy refunctionalizing warfare—that is, reorganizing terms and concepts. One of their proclaimed joint functions is sustainment, which is subdivided into two categories: logistics and personnel services. The military definition of logistics is somehow now subordinate to the professed enveloping concept of sustainment. In my view, this change is an institutional mistake with important consequences in communicating how we act or should act in the design of our military and in the design of military interventions. My reasons include the total systems myopia and problems with the externalities and internalities of meaning associated with sustainment.

The Total Systems View

It is hard to categorize our nation's potential to wage war or project and conduct far away military interventions as sustainment. We have a historic basis to describe this as logistics in the national defense (in the tradition of Rear Admiral Henry Eccles' classic book). Logistics has national and, for that matter, international implications such as finding sources of raw materials for industrial conversion, establishing global lines of communications, creating forces, preparing forces, and so forth. Within this definitional scope, I can fathom logistics as being a justification for war. One example is Japan's 1941 decision to obtain raw materials, by force, in French Indochina in order to sustain its military operations to colonize Manchuria.

Externalities of the Meaning of Sustainment

Sustainment is a misnamed concept when it comes to global views of military designs and what we actually do. The word sustainment just does not cut it when we are referring to the conduct of humanitarian relief and support to U.S. civil authorities. In these sorts of operations, the military does not sustain (a verb) civilian populations, we provide logistics (a potential, capacity, and ability) to immediately save lives. We conduct reception, staging, and onward movement as military logistics experts not as sustainers.

Logistics typically becomes the main effort in operations under these circumstances (externalized in paragraph 3 of the unit's operation order). The internal administration of our own forces (to induce sustained operations) is critical, but is properly internalized in paragraph 4 of the plan or order. These new naming conventions may hinder efforts that would benefit from outside

research and development communities. When I go to peer-reviewed journals, for example, I can find thousands of "hits" under concepts of both logistics and administration, indicating these are broad, interdisciplinary subjects that go back hundreds of years. "Sustainment" goes largely unrecognized outside of the military community. For example, one doesn't hear "That's Sustainment" in the UPS commercial's jingle, or refer to Pennsylvania State University's "Public Sustainment" masters or doctoral degree programs.

Internalities of the Meaning of Sustainment

We seem to confuse "sustainment" with what we used to call administration. We administer to our friendly forces in their pursuit of logistics, personnel, and medical readiness—their potential to start, continue, or end operations ideally without interruption (in other words, they are sustained). In this regard, sustainment is better described as one desirable outcome of a nation's logistics capacity—not a capability in and of itself. Sustainment as a capability makes little sense to me; while sustainment as a product or condition of logistics makes more sense. For example, a man eating food (sustainment) he bought from a supermarket supply chain is now in a state of being sustained. If we are looking for a broader concept in force readiness, administration is the better descriptor of the overarching service departments' legal (Title 10, U.S. Code) requirement to train, equip, provide materiel, and so forth. We appropriately call this requirement in operational doctrine, administrative control not sustainment control.

Doctrine developers distorted the meaning when they introduced sustainment as a joint function. Indeed, in doing so we have risked losing important meanings that the concepts of logistics and administration used to bring to bear. These meanings have significant implications for the design of our military and military interventions. We should not inculcate our Soldiers, Sailors, Airmen, and Marines with the inadequacies of the meaning of sustainment.

Dr. Chris Paparone is the Dean of the College of Professional and Continuing Education, Army Logistics University, Fort Lee, VA. He is a retired Army logistics colonel and holds a Ph.D. from Pennsylvania State University. He welcomes comments and counterarguments to his opinion in this essay.

Adaptive Leadership: The Way Ahead for Sustainment Leaders

By Colonel James D. Sharpe, Jr., USA (Ret.), and Lieutenant Colonel Thomas E. Creviston, USA (Ret.)

"We will never predict with any accuracy what the future holds. After more than nine years of conflict the development of adaptive leaders who are comfortable operating in ambiguity and complexity will increasingly be our competitive advantage against future threats to our nation."¹

—General Martin E. Dempsey,
Chairman of the Joint Chiefs of Staff

"For the past decade, our military has proven itself in what I consider to be the most difficult conditions this Nation has ever faced. Our leaders at every level have displayed unparalleled ingenuity, flexibility, and adaptability."²

—General Raymond T. Odierno,
Army Chief of Staff

Persistent conflict, change, global interdependencies, demographic trends, and exponential technological advancements complicate the strategic environment. General Raymond T. Odierno, Army Chief of Staff, cautions that the forthcoming decade will present our Army with a multitude of security challenges ranging from transnational and regional terrorism—described as hybrid threats—to rising military and economic global powers.

Hybrid threats are innovative, adaptive, globally connected, networked, and embedded in the clutter of local populations. They can possess a wide range of old, adapted, and advanced technologies, including the possibility of weapons of mass destruction (WMD). They operate conventionally and unconventionally; employ adaptive and asymmetric combinations of traditional, irregular, and criminal tactics; and use traditional military capabilities in old and new ways.³

In response to this dangerous and unpredictable operational environment, General Martin E. Dempsey, Chairman of the Joint Chiefs of Staff, insists that the Army must embrace a culture of change and that "success in future armed conflicts requires the Army to sustain the expertise we've developed . . . and also develop leaders

who understand and embrace operational adaptability."⁴

History adequately cites examples of American Soldier ingenuity and flexibility before, during, and after war. The success of future unified land operations will be defined by how well Army leaders continue to display the ingenuity and flexibility that served the Army so well throughout the transformation of our force structure and our engagement in two wars during this past decade. But it will be the adaptive leader who successfully minimizes the uncertainties of when, where, and how the Army engages the multitude of security challenges it is certain to encounter in the future. The employment of adaptive, decentralized sustainment capabilities that can rapidly adjust to changing situations requires Army logisticians who can adapt their thinking, their formations, and their functional techniques to the specific situation they face.

This paper will define adaptive leadership, explain its importance to Army logisticians, and outline how senior Army logisticians can better empower subordinates to become adaptive leaders who will succeed in uncertain, complex, and dynamic environments.

Adaptive Leadership

So, what exactly is adaptive leadership? According to management professor and consultant Dr. Charles Albano, a advocate for individual self-growth programs, it is not an passive effort merely to adjust circumstances. Instead, adaptive leadership encourages and builds upon the circular and interactive relationships that exist among the people within an organization. Dr. Albano describes adaptive leaders as those who see organizations as living—not mechanical—systems. Adaptive leaders seek to shape the roles of subordinates by using their ability to tap into human potential to make positive change.⁵

Dr. Gary Yukl and Dr. Ruma Mahsud, professors of management from the University of Albany, state that adaptive leadership involves changing behavior in appropriate ways as the situation changes. Yukl and Mahsud argue that as the pace of change increases, adaptive lead-

¹ General Martin E. Dempsey, "Leader Development," *Army Magazine*, February 2011, pp. 25–28.

² General Raymond T. Odierno, "A Message from The Chief of Staff," *Echoes, The Newsletter for Retired Soldiers, Surviving Spouses and Families*, January–April 2012.

³ Ibid.

⁴ Dempsey, pp. 25–28.

⁵ Dr. Charles Albano, "What is Adaptive Leadership," *Self Growth*, 22 April 2007. <<http://www.selfgrowth.com/articles/calbano.html>>.

ers become more critical to its success. Adaptive leaders succeed because they are able to accurately diagnose the situation and vary their behavior and the behavior of their subordinates accordingly.⁶

Albano, Yukl, and Mahsud define adaptive leadership as it applies to the success in commercial organizations. In these organizations, change is a constant created by external variables such as the Internet, diversity, the environment, and the economy.⁷ Organizations that succeed are led by leaders who recognize that change is occurring, or imminent, and who are willing to adapt. They effectively communicate to their subordinate leaders and workforce the purpose for change, the outcomes of change, and the organizational way ahead. In doing so, the adaptive leader builds the understanding, consensus, and collaboration necessary for a workforce to adapt and embrace the organization's roadmap for what businesses define as success—profit.

Drs. Benjamin Lichtenstein, Mary Uhl-Bien, Russ Marion, Anson Seers, James Orton, and Craig Schreiber, all complexity leadership theorists, define adaptive leadership as an interactive event in which knowledge, action preferences, and behaviors change, thus provoking change within an organization. In their definition, adaptive leaders do not merely get followers to follow their wishes. Instead, the leaders motivate subordinates to seize new opportunities and adapt and adjust to them in order to tackle the tough issues. As situations change, motivated subordinates leverage their different skills and experiences to lead others to adapt and adjust as required for success.⁸

In reality, there is very little difference between the Army's definition of adaptive leadership and that of the corporate-related examples mentioned above. Field Manual 6–22, *Army Leadership*, defines adaptability as “an individual's ability to recognize changes in the environment, identify the critical elements of the new situation, and trigger changes accordingly to meet new requirements.” Simply stated, an adaptive leader is one who is willing to accept risk in rapidly changing situations, has the ability to adjust based on continuous assessment, and can modify his thinking, formations, and employment techniques to the specific situations he encounters.

In his study “Developing Adaptive Leaders, the Crucible Experience of Operation Iraqi Freedom,” Leonard Wong tells us “adaptive leaders learn to live with unpredictability. They spend less time fretting about the

inability to establish a routine or control the future and focus more on exploiting opportunities.”⁹

In other words, to mix the right formula that successfully builds adaptive leaders, top Army leaders must be flexible and adaptive. They must be willing to risk their status quo of being in charge. As earlier defined by several academic scholars and Army doctrine, adaptive leaders influence behavior in response to change by effectively communicating to their subordinates the purpose for change, the outcomes of change, and the way ahead in order to build the understanding, consensus, and collaboration necessary for subordinates to adapt, embrace, and help guide the organization's roadmap for success. Being “stuck on stupid,” to use a phrase coined by Lieutenant General Russel L. Honore, is no excuse.¹⁰

Army leaders who micromanage, are inflexible, and will not accept failure are not, by any definition, adaptive leaders. Their management habits narrow the collaborative learning environment boundaries and inhibit their subordinates' abilities to engage, understand, adapt, lead, or even exploit opportunities. In the end, these subordinates may not fully develop the confidence needed to neither make the decisions necessary in rapidly changing operational and tactical environments nor be able to operate independently without clear definitive guidance. Their challenge will be to overcome the temporary toxicity of a bad senior leader while continuing to develop their confidence and competencies through a disciplined self-development regimen until a positive role model or mentor is available.

Why We Need Adaptive Leaders

The 2012 Strategic Defense Review suggests that sustainment challenges will increase exponentially as future land operations transition from prolonged stability operations to smaller scale contingency deployments. To meet these unique challenges, Army sustainers must be able to employ adaptive capabilities that can adjust quickly to changing situations. They will be required to be proficient in scaling forces using power projection and enablers like the Army pre-positioned stocks, and in using conventional sustainment basics in order to exploit windows of opportunity.¹¹

To accomplish this, sustainment leaders must re-

⁶ Gary Yukl and Rubina Mahsud, “Why Flexible and Adaptive Leadership is Essential,” *Consulting Psychology Journal: Practice and Research*, Vol. 62, No. 2, 2010, pp. 81–93.

⁷ Ibid.

⁸ Benyamin Lichtenstein et al., “Complexity Leadership Theory: An Interactive Perspective on Leading in Complex Adaptive Systems,” *Emergence: Complexity and Organization*, Vol. 8, No. 4, 2006, pp. 2–12.

⁹ Leonard Wong, “Developing Adaptive Leaders, the Crucible Experience of Operation Iraqi Freedom,” Strategic Studies Institute, U.S. Army War College, Carlisle, Pa., July 2003, p. 11.

¹⁰ Lieutenant General Russel L. Honore, Hurricane Rita press conference statement made to a reporter's question, 20 September 2005.

¹¹ Secretary of the Army John M. McHugh and General Raymond T. Odierno, “2012 Army Strategic Planning Guidance,” Department of the Army, Washington, DC, 19 April 2012, p. 4.

main aware of environmental conditions, have access to a flow of accurate information, be trained in critical skill sets, and be personally engaged to influence the actions of subordinates as they also adapt, plan, and conduct operations. Failure of senior sustainment commanders to adapt sustainment units and capabilities or develop adaptive junior leaders carries a potential death sentence for those for whom the sustainment was intended.¹²

Increasingly complex environments require Army leaders who—

- Are confident, versatile, adaptive, and innovative.
- Understand the context of the military situation and are able to act within that understanding.
- Assess and adapt actions to the environment.
- Consolidate tactical and operational opportunities into strategic aims.
- Transition effectively and rapidly from one operation to another.¹³

Successful Army leaders recognize that they must adapt their thinking, formations, and employment tech-

niques to the specific situations they encounter. General Dempsey suggests “it is always the leaders on point who are able to take what we give them, adapt to the environment in which they are placed and accomplish the mission.”¹⁴

Sustainment in this complex environment requires an adaptive and versatile sustainment framework capable of maintaining the Army land forces’ freedom of action. Major General James L. Hodge, former commander of the Combined Arms Support Command, stated that the sustainment community must do three things to keep up with the constantly changing environment of the future:

- Continue to assess the performances of sustainment units engaged in the current fight and review their lessons’ learned.
- Engage the operational force and supported units in order to stay focused on their needs.
- Participate in the active assessment of the dynamics of our changing world and security environment to best predict doctrine, training and force structure requirements.¹⁵

Soldiers of the Army Reserve’s 311th Expeditionary Sustainment Command look for simulated improvised explosive devices and other threats along a convoy route during training on 2 November 2012. The Soldiers were training for an upcoming deployment to Afghanistan. (Photo by SFC Gail Braymen)



¹² Paul Yingling, “Irregular Warfare and Adaptive Leadership,” *Small Wars Journal*, 2009, <<http://www.smallwarsjournal.com>>

¹³ Field Manual 6–22, Army Leadership, Department of the Army, Washington, DC, October 2006, p. 10-8.

¹⁴ Donna Miles, “Army Chief Discusses Future of Training,” 1 June 2011, <<http://www.defense.gov/news/newsarticle.aspx?id=64141>>

¹⁵ Major General James L. Hodge, “Versatile Trainer: Sustaining the Force While Adapting Doctrine, Training, and Leader Development,” *Military Training Technology Review Q&A*, February 2011, <<http://www.military-training-technology.com/mt2-home/299-mt2-2011-volume-16-issue-1-february/3873-qaa-major-general-james-l-hodge.html>>

To sustain the fight effectively at all times, the Army sustainment community requires innovative subordinate leaders who recognize challenges as they occur, quickly analyze and adjust to those challenges, and operate within the senior commanders' intent. As General Dempsey clearly stated, "There are no crystal balls that can predict the demands of future armed conflict. Our ability to learn and adapt rapidly is an institutional imperative."¹⁶

Training Adaptive Sustainment Leaders

The Army recognizes that it must adapt the way in which it develops leaders in order to stay ahead of the evolving and changing uncertainties and challenges of the operational environment.¹⁷ Perceptive Army leaders train subordinates to adapt to fluid, changing conditions and successfully cope with the ambiguities of complex environments.

Through consistent training and leading by example, adaptive leaders can develop situational and cultural awareness competencies in subordinates, which will improve their abilities to understand the purpose of operations and extend their full capabilities of support. These competencies will help them to not only succeed in the current fight but also prepare for the next one.¹⁸

To accomplish this task, senior Army sustainers must better empower subordinates to become adaptive leaders through leader development programs that focus on critical thinking and unstructured problem solving.

Senior sustainment commanders will soon have available to them the Army Training Concept (ATC) 2020, the Army's vision to maintain operationally adaptive, ready units and Soldiers in a period of reduced resourcing, persistent conflict, and a complex, uncertain operational environment. When fully implemented, ATC 2020 will allow senior sustainment commanders to create unscripted, free play, multi-role player exercises that replicate the complexity and uncertainty of the modern battlefield.¹⁹ The after-action review and retrain processes will help subordinate leaders to better understand the operational environment within which they may have to operate, identify how to act independently within it, and confidently adapt to operational changes as they occur to provide the right sustainment, at the right time, and at the right place.²⁰

As already noted, the Strategic Defense Review suggests that the Army will likely find itself engaged in smaller scale contingency deployments—quick in and quick out. Operations in Southwest Asia have proved that the Army is highly skilled at providing ready and relevant capabilities

in support of deliberate Army Force Generation (ARFORGEN) cyclic deployments. As noted by Rapid Expeditionary Deployment Initiative Implementation Execution Order 250–12, the Army may not be as equally prepared to respond to no-notice, rapid deployments because deployment skills have been allowed to atrophy.²¹

Future operations will challenge Army logisticians to prepare modular sustainment force packages scaled to be rapidly deployed, reinforced by strategic resources, while simultaneously providing the deployment expertise and platforms to project combat capabilities as required. A way to ensure sustainment leaders can rapidly adapt and succeed in future, fast-paced contingencies is to design realistic training that develops them to be tactically and technically competent and confident in force projection development and execution.

Past experiences at the Joint Warfighting Center suggest that units often "wished-away" the requirements to power project from U.S. platforms. Too often, joint task force staff training thoroughly vetted course of action development, skipped critical deployment and reception, staging, onward movement, and integration activities, and then continued with planning and execution at D-Day, ignoring the demands and consequences of building sufficient combat power in a simulated theater of operations.

Balancing live and virtual training can help the Army logistician better understand that effective sustainment during decisive action operations starts with deliberate time-phased force deployment data considerations. Those considerations ensure the right sustainment enablers are deployed and in place to facilitate reception, staging, and onward movement and future integration operations. Failure to do so delays the deployment-to-employment transition, reducing the capabilities of sustainers to keep pace with the warfighters' intent.

The Army's Rapid Expeditionary Deployment Initiative recognizes that the players, processes, and infrastructure requirements to support power projection operations must be carefully coordinated from beginning to end. Logisticians and warfighters must understand TRANSCOM's role in power projection and partner with TRANSCOM to ensure success.

The return to realistic and challenging force projection training exercises, such as no-notice emergency deployment readiness exercises, combined with evolving virtual training venues such as the Army Training Concept and decisive action simulation, ensures Army

¹⁶ General Martin E. Dempsey, "A Campaign of Learning to Achieve Institutional Adaptation," *Army Magazine*, November 2010, pp. 34–35.

¹⁷ "A Leader Development Strategy for a 21st Century Army," Department of the Army, 25 November 2009, p. 2.

¹⁸ Dempsey, "A Campaign of Learning."

¹⁹ Brigadier Generals Richard C. Longo and Paul E. Funk II, "Developing Adaptable Soldiers, Leaders and Units to Meet the Challenge of Persistent Conflict," *Army Magazine*, March 2011, pp. 45–50.

²⁰ *Ibid.*

²¹ All Army Activities (ALARACT) Message 194/2012, Rapid Expeditionary Deployment Initiative (REDI) Implementation Executive Order 250–12, Department of the Army, Washington, DC, 25 July 12.

logisticians will be comfortable adapting to, and keeping up with, the real-world pace of force flow changes.

When today's adaptive leaders are faced with a problem, the combination of realistic training and developed competencies will foster innovative ideas to solve such complex problems.

Adaptive Sustainment Leaders: The Way Ahead

The way ahead for Army sustainers is to learn to adapt.²² A leader's adaptive capacity is defined by his ability to quickly identify change opportunities, respond intelligently to them with limited data and analysis, and then evaluate the results of the response after the action is completed. Operations in Iraq and Afghanistan, characterized by complexity, unpredictability, and uncertainty, have provided the Army with a force of adaptive leaders who have led units in combat, who are skilled in negotiations, and who are comfortable with challenge.

Ten years of combat operations has also substantiated the Army's abilities to project and sustain large formations overseas for prolonged periods albeit at a tremendous cost. The Army is comfortable with the cyclic rotation of available and ready forces in and out of the U.S. Central Command area of operations, more so since the withdrawal of forces and retrograde of equipment from Iraq.

Our nation's dependence on neighboring nations for political, security, and transportation cooperation and assistance keeps sustainment requirements in Afghanistan complex and uncertain. Senior Army logisticians are comfortable with this arrangement and so are their subordinates, who have gained sustainment "know-how" through their experiences in this operational environment. However, comfort does not lead us to adaptability; challenging uncertainty does.

Sustainers must heed Paul Yingling's caution that "officers conditioned to conformity in peacetime cannot be expected to behave boldly and flexibly in combat."²³ General Hodge directed the sustainment community to not only study lessons learned from current operations but also exploit training opportunities with warfighters in all environments, all conditions, and all scenarios to best prepare for the uncertainties and sustainment challenges that future operations will bring.²⁴

The shifting nature of the operational environment demands that we match tactical agility with institutional agility and that we develop leaders who can create an environment of collaboration and trust to promote adaptation and innovation.²⁵ It is critical to build upon the

sustainment know-how learned from the current fight. However, fiscal realities suggest that training opportunities may be limited.

Senior sustainment commanders are tasked to replicate the challenges of complexity at schools, training centers, and home station. In General Dempsey's words, leaders need to make the scrimmage as hard as the game.²⁶ Sustainment commanders must seek creative, realistic, and challenging training opportunities afforded by combined live and virtual training venues to reinforce subordinates' functional expertise and confidence. With such training, Soldiers will be able to operate successfully regardless the threat, environment, conditions, and the availability of information. Failure to do so would be to ignore Confucius's caution "to lead untrained people to war is to throw them away."²⁷

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Editor's Note: In cooperation with the Army Logistics University, Army Sustainment has implemented the practice of a double blind peer review for all articles appearing in its "Spectrum" section. The magazine's goal is to ensure that only well-researched, balanced, and thought-provoking articles are published. Peer review is an objective process at the heart of good scholarly publishing and is carried out by most reputable academic journals. As part of this process, our authors and reviewers both play vital roles in maintaining the high standards of Army Sustainment.

²² Major Harold H. Whiffen, "Becoming an Adaptive Leader," *Military Review*, November–December 2007, pp. 108–114.

²³ Yingling, p. 6.

²⁴ Hodge, *Military Training Technology Q&A*.

²⁵ "A Leader Development Strategy for a 21st Century Army," Department of the Army, 25 November 2009, p. 5.

²⁶ Miles, <<http://www.defense.gov/news/newsarticle.aspx?id=64141>>

²⁷ Confucius, Wikiquote.org, <http://en.wikiquote.org/wiki/Rome:_Total_War>

Airlift in Africa: Building Operational Logistics Capability for the African Standby Force

By Major Jeffrey N. Krulick, USAF

During the past decade, the increasing global competition for resources, access to energy, and terrorist attacks on U.S. embassies in Africa have spurred a renewed focus on U.S. policy toward Africa. The U.S. Africa Command (AFRICOM) was established to address U.S. strategic interests in Africa by building partnerships with African allies and the African Union (AU). The AU has attempted to address the security and stability issues that plague Africa, and in 2004, the AU formally established an African Standby Force

(ASF) to respond rapidly to conflicts and humanitarian emergencies.¹

Unfortunately, the ASF has not yet reached operating capability, and as a result, various members of the international community have provided most of the logistics support for recent peacekeeping operations, including the AU missions to Sudan, Burundi, and Somalia.²

Operational-level logistics is the deployment and sustainment of forces across a theater of operations. That capacity is currently missing from the AU's operational

Cameroon Minister of Defense Edgar Alain Mebe Ngo'o and Lieutenant Commander Bryan McRoberts shake hands at the start of the annual joint military exercise Africa Endeavor on 18 June 2012. Sponsored by U.S. Africa Command, Africa Endeavor is an annual exercise that focuses on the interoperability of equipment and information sharing among military representatives throughout the African Union. (Photo by SSG Michelle Gonzalez)



¹ Mashood Issaka and Elijah Mushemeza, "Operationalizing the African Standby Force," meeting notes from an International Peace Institute retreat in Kigali, Rwanda, January 2010, p. 6.

² Cecilia Hull and Emma Svensson, "African Union Mission in Somalia (AMISOM) Exemplifying African Union Peacekeeping Challenges," Swedish Defence Research Agency, Stockholm, Sweden, October 2008, p. 4.

capability.³ The heart of humanitarian and peacekeeping operations lies in the ability to conduct operational logistics to sustain assigned forces. Africa's austere environment presents difficult logistics challenges. Limited transportation infrastructure requires that airlift be present to augment ground and sea transportation assets responding to crises and conflict situations. The AU and most of its member states have very limited airlift capability and rely on external assistance to deploy and sustain AU forces.

Rather than simply continuing to be a provider of the AU's logistics capability, the United States is transforming its relationship with the AU. This transformation focuses on developing Africa's capacity to provide its own security and stability and increases emphasis on AFRICOM's partnerships with regional organizations such as the ASF. To foster progress toward preventing conflict through regional stability, AFRICOM should establish a joint initiative with the ASF brigades to assemble a regionally-based airlift capability to bridge the crucial gap in operational logistics.

Partnership Challenges

A military-to-military partnership between the AU's burgeoning ASF and AFRICOM is a likely fit since both organizations share the mission of promoting stability in Africa. However, a number of African states mistrust U.S. involvement in African security affairs. They connect AFRICOM to memories of European colonialism and view the command as militarization of the U.S. relationship with Africa.

In addition, many Africans are cautious of U.S. intentions since its policy essentially abandoned Africa following the Cold War. They feel that only the threats of violent extremism and China's growing influence in the region have caused the United States to make Africa a policy priority.⁴

This skepticism is readily apparent in AFRICOM's struggle to find a permanent location on the continent. Although a few countries have offered to host the command, the United States has been unsuccessful in getting broad African support for basing the AFRICOM headquarters on the continent.⁵ African leaders are also wary of AFRICOM's mixed military and diplomatic structure, fearing that the U.S. military will direct diplomatic efforts

to develop democracy and fight government corruption in Africa.⁶

Concerns about AFRICOM's intentions also influence U.S. funding and resources. The challenges of funding regional security organization are always significant, and the lack of financial support for the ASF regional brigades impedes their ability to build logistics and operations capability.⁷

The AU and its member states must be judicious in deciding which resources and capabilities will provide the most return on investment toward the goal of building an operational ASF. For example, organic military airlift is particularly expensive. The Airbus A400M, a medium airlifter being purchased by European Union (EU) militaries, costs about \$1.3 million.⁸ The challenges of funding military transport aircraft procurement are shown by South Africa's 2009 decision to cancel its A400M program because of cost.⁹

The U.S. side of any AFRICOM-ASF partnership faces the same funding challenges. Current debates over U.S. Department of Defense (DOD) budgets will significantly affect ASF funding. Foreign aid is always a budget-cut target, especially in the current fiscal environment. Therefore, any program to develop ASF operational logistics will face intimidating funding challenges and must prove its merits unequivocally to all decisionmakers.

The African Union Requirement

The arguments against building a long-term relationship with the ASF are valid but must be weighed against U.S. and AU interests in bolstering Africa's ability to address its own security and stability problems. The AU has taken assertive steps toward a regional security capability, and in 2003, the AU established the Peace and Security Council (PSC) to address conflict prevention and mitigation. The council's operational arm is the ASF, which has five standby brigades, one in each of Africa's five regions: central, southern, eastern, northern, and western.¹⁰

The primary function of a regional brigade is security crisis response under the umbrella of six mandates identified in the AU's common defense and security policy. The first three mandates call for observer missions. The second three involve escalating crises, and the brigade's response could range from deploying peacekeeping forces

³ Milan Vego, *Joint Operational Warfare: Theory and Practice*, U.S. Naval War College, Newport, R.I., Vol. 3, 2009, p. 76.

⁴ José de Arimatéia da Cruz and Laura K. Stephens, "The U.S. Africa Command (AFRICOM): Building Partnership or Neo-Colonialism," *Journal of Third World Studies*, Vol. 27, No. 2, Fall 2010, p. 204, <<http://www.proquest.com/>>, accessed 10 April 2011.

⁵ Nico Colombant, "Battle Begins for Hosting U.S. Africa Command," *voanews.com*, 12 April 2011, <<http://www.voanews.com/english/news/africa/Battle-Begins-for-Hosting-U.S.-Africa-Command-119714109.html>>, accessed 14 April 2011.

⁶ Michael Mihalka, Moussa Diop Mboup, and Douglas Lathrop, "Misguided Intentions: Resisting AFRICOM," *Military Review*, Vol. 89, No. 4, July–August 2009, p. 89, <<http://www.proquest.com/>>, accessed 10 April 2011.

⁷ Issaka and Mushemeza, p. 2.

⁸ *Airbus Military A400M*, Jane's All the World's Aircraft, <<http://search.janes.com/>>, accessed 10 April 2011.

⁹ *South Africa - Air Force*, Jane's World Air Forces, <<http://search.janes.com/>>, accessed 10 April 2011.

¹⁰ Jakkie Cilliers, "The African Standby Force: An Update on Progress," Institute for Security Studies Paper 160, Pretoria, South Africa, 2008, p. 2.

to directly intervening in a regional conflict.¹¹

Each ASF brigade is made up of about 4,300 personnel, 175 vehicles, and 4 helicopters.¹² The brigade's size requires a significant logistics footprint and complex transportation plans for deployment and sustainment. The ASF is tasked to deploy forces rapidly to interdict or deter conflict as outlined in the AU mandate. The ASF rapid-response concept calls for deploying an initial response force of 1,000 personnel within 14 days and an additional 1,500 within 30 days.¹³ This deployment timeline requires robust transportation to respond quickly in remote African regions.

Yet, in recent peacekeeping operations, the AU has been unable to achieve effective operational reach, which is defined by Professor Milan Vego as "the distance over which one's military power can be massed and employed decisively."¹⁴ Extending ASF operational reach requires transportation capability. Because the austere nature of Africa places limits on the ASF's transportation options, airlift must be a primary player in the AU's plans to respond effectively to a security or humanitarian crisis.

Unfortunately, Africa's internal transportation infrastructure is very limited. Africa's logistics network comprises numerous seaports along the coastline, but options are limited in the massive interior of the continent that accounts for one-fifth of the earth's land.¹⁵ Rail transport is available along a few corridors, but the railways are frequently out of service because of a lack of resources needed to keep them functioning properly or because the routes pass through unstable regions.

The rail network does not provide coverage across the continent because most routes were built during the colonial era to deliver resources to the coast for external trade rather than for intra-African trade.¹⁶ In addition, railway distribution is unequal. Of an estimated 45,000 miles of track, 30 percent is located solely in South Africa while 12 African countries have no railway systems.¹⁷

The primary alternative to rail is trucking, which constitutes 90 percent of all interurban transport on the

continent. However, the road system is considered one of the worst in the world because of poor surface conditions and significant delays at border crossings.¹⁸ Africa's slow, unreliable ground transportation network does not provide the responsive logistics capability that the ASF requires to meet its deployment and sustainment benchmarks for a successful mission.

Africa's air transportation infrastructure is limited, with airfields that suffer from deteriorating runways, outdated air traffic control equipment, and minimal cargo and passenger handling equipment. Even so, each country has at least one international airport and countless dirt strips, which can accommodate smaller airlifters to complement ground transport.¹⁹

Peace Support Operations

African transportation limitations, combined with the AU's lack of logistics capability, have inhibited the operational effectiveness of AU peace support operations (PSOs). The AU has conducted three significant PSOs since its formation in 2002, and each operation faced major challenges to deploy, employ, and sustain forces effectively.²⁰

The 2003 African Mission in Burundi (AMIB) deployed to enforce ceasefire agreements between the Burundi Government and rebel groups. AMIB eventually deployed more than 3,000 peacekeepers and stabilized Burundi enough for United Nations (UN) forces to take over.²¹ However, the mission revealed significant deficiencies in the ability of AU member country to deploy and sustain PSOs.²² This was noted by Kofi Annan, the UN Secretary-General, who reported, "The financial and logistic constraints under which the AMIB is operating prevents the force from fully implementing its mandate."²³

The limited success of AMIB was only possible because the United States, EU, and UN provided resources to deploy and sustain the AMIB peacekeeping forces.²⁴ The well-documented AMIB logistics problems resulted in the development of the Burundi Model for PSOs that would

¹¹ Theo Neethling, "Pursuing an Effective African Peace-keeping Capability: What Could be Learned from Burundi and Darfur," *Strategic Review for Southern Africa*, November 2007, p. 54, <<http://www.proquest.com/>>, accessed 10 April 2011.

¹² Cilliers, p. 11

¹³ *Ibid.*, 10.

¹⁴ Vego, Vol. 1, p. 78.

¹⁵ "Africa," *Worldatlas.com*, <<http://www.worldatlas.com/webimage/countrys/af.htm>>, accessed 10 April 2011.

¹⁶ Afeikhena Jerome, "Infrastructure in Africa: The Record," *African Development Bank Economic Research Papers*, 1999, No. 46, p. 29.

¹⁷ *Ibid.*

¹⁸ Anver Versi, "The Science and Art of Logistics in Africa," *African Business*, Issue 333, July 2007, pp. 17–18, <http://findarticles.com/p/articles/mi_qa5327/is_333/ai_n29363012/>, accessed 10 April 2011.

¹⁹ Jerome, p. 31.

²⁰ Hull and Svensson, p. 4.

²¹ Emma Svensson, "The African Mission in Burundi, Lessons Learned from the African Union's First Peace Operation," *Swedish Defence Research Agency*, Stockholm, Sweden, p. 13.

²² *Ibid.*, p. 4.

²³ Kofi Annan, "Report of the Secretary-General on Burundi. U.N. Security Council Report S/2004/210," United Nations, New York, 2004, p. 13.

²⁴ Svensson, p. 17.



A U.S. Marine speaks to a Burundi National Defense Force soldier using an interpreter on 26 June 2012. U.S. Marines and Sailors trained with the Burundi soldiers to prepare the unit for deployment in support of the African Union Mission in Somalia. (Photo by LCpl Adwin Esters)

require AU countries to provide their own logistics and sustainment.²⁵ This is a practical approach to the logistics problems since the AU does not have the organizational capacity to deploy or sustain PSOs. But the result of the Burundi Model has been that AU countries largely depend on logistics support from states and organizations outside Africa.

African dependence on external logistics assistance continued with the AU's second major PSO, the African Mission in Sudan (AMIS). AMIS was established to monitor the ceasefire agreement between North and South Sudan and bring security to the province of Darfur. AU peacekeeper deployments began in May 2005 and reached 7,000 by the middle of 2006—double the number in AMIB.²⁶ However, AMIS relied exclusively on NATO to provide airlift to deploy peacekeepers into Darfur because most contributing AU countries possessed few or no airlift assets.²⁷ The logistics limitations caused by the AU's lack of airlift negatively affected operations and decreased the

velocity of the AMIS response.²⁸

The most recent major PSO led by AU peacekeeping forces was the African Union Mission in Somalia (AMISOM). Established in January 2007, it supports the Transitional Federal Government in Somalia to provide security for humanitarian assistance, stabilization, and reconstruction efforts. The original mandate from the AU PSC called for 8,000 troops, but the number actually deployed was closer to 3,000.²⁹ Although two brigades from Burundi were prepared to deploy, AMISOM was unable to move them because of insufficient transportation and sustainment capacity.

AMISOM logistics support was based on the Burundi Model, and thus the primary troop contributing countries relied on external sources to deploy and sustain their forces.³⁰ The consequence, in AMISOM as well as AMIB and AMIS, was that the lack of operational logistics capability altered the operational mission objectives.

The inherent risk to any AU plan based on the Burundi

²⁵ Hull and Svensson, p. 8.

²⁶ Neethling, p. 62.

²⁷ *Ibid.*, p. 61.

²⁸ Catherine Guicherd, "The AU in Sudan: Lessons for the African Standby Force," International Peace Academy, New York, 2007, p. 4.

²⁹ Hull and Svensson, p. 8.

³⁰ *Ibid.*, p. 29.



Burundi National Defense Force soldiers hike up a hillside with alongside a U.S. Marine during a joint military exercise on 27 June 2012. U.S. Marines and Sailors trained with the Burundi soldiers to prepare the unit for deployment in support of the African Union Mission in Somalia. (Photo by LCpl Adwin Esters)

Model is the over reliance on external sources to supply the initial critical airlift. Although these external sources may have the required airlift capacity, there is no guarantee that they will make resources available in a responsive manner. If the AU is truly to operationalize the ASF regional brigades, a dedicated, responsive, and robust airlift capability must be part of the solution to ASF operational logistics challenges.

U.S. Interests

The AU and ASF ability to conduct peacekeeping and humanitarian operations is hampered by the lack of operational logistics, specifically airlift capability. The United States is capable of partnering with the ASF to mitigate this limitation, but the efforts to improve ASF operational reach must coincide with U.S. interests in Africa. In addition, the AU, ASF regional brigades, and individual African states must have compelling reasons to support an airlift partnership between AFRICOM and the ASF.

The early 1990s marked a U.S. exit from direct engagement on the African continent because U.S. policymakers assigned limited strategic value to Africa as the Cold War battle of ideologies ended.³¹ This began to change in 1998

after attacks on U.S. embassies in Africa, and energy access competition, global trade agreements, armed conflict, and terrorism have renewed Africa as a U.S. strategic priority in the past decade.³² This renewal prompted the establishment of AFRICOM and an increasingly vocal U.S. interest in Africa's long-term stability and prosperity.

The emphasis on African stability is a thread articulated at each level of executive authority in the U.S. Government. The 2010 National Security Strategy discusses strategic involvement to improve African security through external investment in regional capabilities.³³ The 2011 National Military Strategy identifies the U.S. commitment to develop AU regional partnerships and specifically ASF military capacity.³⁴ Finally, AFRICOM's posture statement highlights the combatant commander's intent to deter and resolve conflict through building African-led security capacity.³⁵

The AU's desire to address security and humanitarian challenges is exemplified by the peace support operations in Burundi, Sudan, and Somalia. In addition, the AU's commitment to the ASF concept of a regional security force is further evidence that its members are committed to resolving Africa's internal conflicts with African solutions.

³¹ Lauren Ploch, "Africa Command: U.S. Strategic Interests and the Role of the U.S. Military in Africa," Congressional Research Service, Washington, DC, April 2010, p. 14.

³² *Ibid.*, p. 15.

³³ "The National Security Strategy of the United States," The White House, Washington, DC, May 2010, pp. 45–46.

³⁴ Chairman of the Joint Chiefs of Staff, "The National Military Strategy of the United States of America," Washington, DC, February 2011, p. 12.

³⁵ General Carter Ham, "United States Africa Command 2012 Posture Statement," Washington, DC, February 2012, p. 15.

Building the ASF into a self-sufficient security force requires external assistance, but Africans are justifiably suspicious of U.S. intentions. Most of the relationships between the United States and Africa have been bilateral engagements, but African leaders have clearly stated they would prefer AFRICOM to work primarily through the AU and regional organizations.³⁶

The concerns are driven by the reluctance to accept U.S. military influence in planning, executing, and leading AU missions. Though vital to success in peacekeeping operations, logistics assistance generally does not impinge on the operational control and decisionmaking of a military mission. Rather, with a long-term goal of ASF logistics autonomy, building logistics capability will go a long way toward enabling the ASF to operate independently.

There is a distinct connection between the U.S. interest of promoting stability and security throughout Africa and a U.S. partnership to develop the ASF's airlift capability. The integration of responsive airlift with ground and sea transportation will enable continued access to areas of contention while sustaining humanitarian and peacekeeping forces.

Providing security and stability in order to enable energy resource production and trade requires a persistent presence in affected regions. In the same manner, regional conflicts require an approach that can provide extensive access to protect and sustain the civilian populations caught up in the fight. Access to areas of contention can also create conditions to defeat insurgent and terrorist groups by co-opting the population from which they draw sustainment and support.

Airlift in Austere Environments

The mutual strategic interests and operational advantages of an AFRICOM-ASF partnership are supported by extensive U.S. experience in employing airlift in austere environments and training allies to conduct airlift. Relevant examples include extensive tactical airlift throughout South Vietnam, U.S. airlift in support of the 1960 UN Security Resolution to restore order to the Congo, and the ongoing effort to rebuild the Afghan Air Force (AAF). The common thread of these examples is the development and application of air transport in geographically challenging environments while working with partners who have significant resource limitations.

U.S. airlift in Southeast Asia during the Vietnam War was one of the first examples of air mobility being widely employed to support unconventional methods against

enemy guerillas. It gave the United States and South Vietnam a significant force multiplier that permitted rapid deployment and sustainment of operations in otherwise inaccessible remote areas.³⁷ An example of this unique capability was the resupply of U.S. special operations forces operating with the CIA's Civilian Irregular Defense Groups (CIDGs). These missions used short, unimproved airfields with minimal parking space. Many of the landing strips were less than 2,000 feet long and required rugged aircraft such as the C-7 Caribou because of its unique ability to land and launch in remote regions.³⁸

These airlift aircraft in Vietnam defined a capability known as assault airlift, filling the gap between heavy-lift helicopters and larger fixed-wing airlifters. The lower-cost assault aircraft filled the requirement for access to remote airfields that were beyond helicopter range but too short for larger tactical airlifters.

By comparison, modern-day ASF logistics challenges are similar since the ASF mission requires the capability to project forces and support over moderate distances. Much of Africa is defined by an austere landscape with the same short-airfield characteristics encountered in Vietnam. Though not the single solution, Vietnam-style assault airlift should play an important part in plans to establish an ASF airlift capability.³⁹

Although airlift operations in Vietnam were crucial to U.S. force sustainment in remote areas, the ability of the South Vietnamese to conduct air transport after U.S. withdrawal in 1973 was vital to their long-term ability to continue counterinsurgency operations and post war reconstruction.⁴⁰ In the early 1960s, the United States began an advisory program that provided training, personnel, and material resources to develop the South Vietnamese air transport force. The program provided training and instruction across multiple aspects of air transportation, including flight operations, maintenance, and aerial port operations (aircraft loading/unloading).

The core of the U.S. adviser program was a partnership to achieve autonomous South Vietnamese airlift operations. For example, the aerial port personnel program started with the direct training of the South Vietnamese in 1967. By 1970, a South Vietnamese-run school for aerial port operations was opened, which allowed U.S. forces to relinquish the instructor role.⁴¹ Although it took the better part of a decade, the sustained partnership paid off because the airlift arm of the South Vietnamese Air Force was essentially self-sufficient by 1973.⁴²

This partnership model is especially relevant to the

³⁶ Mihalka, Mboup, pp. 91–92.

³⁷ Ray Bowers, *Tactical Airlift*, Office of Air Force History and Museum Programs, Washington, DC, 1983, p. vii.

³⁸ *Ibid.*, p. 154.

³⁹ Robert Owen and Karl Mueller, "Airlift Capabilities for U.S. Counterinsurgency Operations: RAND Report MG-565-AF," RAND, Santa Monica, 2007, p. xii.

⁴⁰ Bowers, p. 581.

⁴¹ *Ibid.*, p. 599.

⁴² *Ibid.*, p. 581.

ASF's current inability to deploy and sustain its forces. An integrated approach to providing equipment and training across the continuum of operational logistics could maximize the effectiveness of an AFRICOM-ASF partnership.

During the same timeframe as the U.S. airlift efforts in Vietnam, the United States conducted significant airlift operations in the Congo to support a UN resolution to restore order. The Congo mission primarily used C-130s to deploy UN troops and evacuate U.S. citizens. The many remote regions in Africa required a complex network of staging and refueling bases that included 52 airfields in 33 countries to deploy 10,000 UN troops and provide for their sustainment.⁴³

Challenges of Peacekeeping Operations

Although today's U.S. and EU airlift capabilities could move similar loads within the continent more efficiently, the African airport infrastructure still does not permit large aircraft access to the vast interior regions. The Congo operations were of the largest airlift operations in Africa and revealed many challenges that the AU has also faced in recent peacekeeping operations.

First, self-sustainment of basic needs such as food, water, and fuel, is a mission requirement for military operations in Africa.⁴⁴ Airlift operations must be prepared to provide these needs throughout the duration of the operation.

Second, mission command of airlift operations necessitates a remote area communications capability.⁴⁵ ASF airlift programs must include training to manage and integrate airlift mission command with the related operational logistics needs of the mission.

Finally, austere or remote operations require aircraft dedicated to air transport operations.⁴⁶ Just as the United States has placed great emphasis on building and sustaining its airlift fleet over the years, the AU must view the development of a regional air transport capability as vital to operational reach in future AU and ASF missions.

Since 2002, the U.S. has been committed to developing the AAF, specifically its airlift arm. Afghanistan has many of the same remote geographical challenges as Africa, and feedback from the ongoing U.S. effort to build Afghan airlift capability is pertinent to efforts aimed at establishing an ASF air transport capability.

The first step of the U.S. effort in Afghanistan was an extensive planning and assessment phase to identify cur-

rent capabilities and define the future needs of the Afghan forces.⁴⁷ This planning phase was critical to presenting Afghan military leaders with an accurate picture of their situation so that they could make informed decisions about training and equipping Afghan forces to employ airlifters.

Another conclusion was that primary reliance on light (or assault) airlift capability was the correct match to support counterinsurgency efforts, given the limited resources and infrastructure throughout Afghanistan.⁴⁸ Finally, an effective program to build capability had to be resourced and sustained over the long term. The United States initially estimated a 6-year timetable to bring the AAF to self-sufficiency in 2012. However, funding and resource constraints plagued the effort and maintenance problems have grounded the older C-27A airlifters.⁴⁹

The funding available for the AAF program has primarily come from the formerly titled Global War on Terrorism funds, but these funds were supplemental and not automatically renewed annually.⁵⁰ To support Africa's ASF, a steady funding source is needed for the extended time period that a program of this type requires.

Recommendations: A Joint Solution

The framework for a successful effort to achieve regional ASF operational logistics self-sufficiency first requires trusted partnerships with the lead states in which the program is to be implemented. The next step is a comprehensive assessment to determine how to meet specific regional ASF needs within resource constraints. Finally, the implementation program must be a joint approach that addresses the full spectrum of transportation options. Airlift capability must be a part of this joint solution because it will enable the ASF to respond promptly to emerging crisis situations. However, airlift alone will not provide a cure-all to ASF logistics shortfalls. Rather, the solution requires a comprehensive approach that starts with airlift and integrates operational logistics efforts across all forms of transportation.

Establish a Partnership in the Right Place

The five ASF regions are at different stages of progress toward an operational ASF capability. Initially developing a relationship with one ASF will establish a precedent of trust that can be a foundation on which to build partnerships in the other regions. The Economic Community

⁴³ Gilles K. Van Nederveen, *USAF Airlift Into the Heart of Darkness, the Congo 1960-1978: Implications for Modern Air Mobility Planners*, Air University Press, Maxwell Air Force Base, 2001, p. 21.

⁴⁴ *Ibid.*, p. 57.

⁴⁵ *Ibid.*

⁴⁶ *Ibid.*

⁴⁷ Jennifer D. Moroney et al., "International Cooperation with Partner Air Forces: RAND Report MG-790-AF," RAND, Santa Monica, January 2009, p. 49.

⁴⁸ *Ibid.*, p. 50.

⁴⁹ Joshua Partlow, "Afghan Air Force Hobbled by Safety and Maintenance Problems," *Washington Post*, 3 July 2012.

⁵⁰ Moroney et al., p. 50.



Burundi National Defense Forces soldiers walk down a dirt road to an assembly point in the countryside during a combined arms exercise on 26 June 2012. U.S. Marines and Sailors trained with the Burundi soldiers to prepare the unit for deployment in support of the African Union Mission in Somalia. (Photo by LCpl Adwin Esters)

of West African States (ECOWAS) Standby Force is an example of the initial potential necessary to establish a program. AFRICOM is already working with ECOWAS and has established U.S.-taught logistics training classes under AFRICOM's Partnership for Integrated Logistics Operations and Tactics (PILOT) program.⁵¹ Additionally, ECOWAS has plans to develop logistics capacity at the Kofi Annan International Peace Training Center in Accra, Ghana, and at one of the few functional African logistics depots in Freetown, Sierra Leone.⁵²

Perform a Needs-Based Assessment

Once a region has been selected, an assessment of operational logistics and transportation should be conducted to determine how to increase the ASF's capability to meet the mandate to deploy 1,000 personnel within 14 days to a regional location and sustain them. The assessment must account for all forms of transportation to determine how best to integrate multiple modes to meet deployment and sustainment timelines.

The U.S. Transportation Command (TRANSCOM) Joint Assessment Team (JAT) model could be employed to conduct this comprehensive assessment. The JAT comprises joint cross-functional experts in mobility, transportation, and logistics with the ability to assess

distribution network capability. Since its inception in 2006, the JAT has been successfully employed multiple times in the U.S. Central Command to assess mobility operations.

Choose Transportation Hardware

Based on a capability assessment matched to requirements and resources available, identify the right types of transportation assets to procure. Although this decision is situational in nature, it is a good assumption that resource and funding constraints will not allow the purchase of military airlifters such as the C-27J Spartan, C-130J Hercules, or A400M, which range in cost from \$25 million to \$100 million each.⁵³ Rather, the choices for aircraft should be geared toward choosing the correct light or assault airlifter that can be efficiently integrated with ground transportation to meet deployment and sustainment requirements.

There are a number of off-the-shelf options for light airlifters. One example is the Basler BT-67, a converted DC-3 that can carry 36 passengers or 11,000 pounds of cargo over a range of 1,000 nautical miles and land on short airfields of less than 1,500 feet. Each BT-67 costs between \$7 million to \$10 million.⁵⁴ Purchasing 5 BT-67s, instead of a single C-130J, would exceed the

⁵¹ "Fact Sheet: Partnership for Integrated Logistics Operations and Tactics (PILOT)," 20 February 2009, <<http://www.africom.mil/getArticle.asp?art=2696&lang=0>>, accessed 17 March 2011.

⁵² Daniel Kolva, "The ASF and AFRICOM: Partnering for Peace in Africa," *Peace and Stability Operations Journal Online*, February 2011, p. 5, <<http://pksoi.army.mil/>>, accessed 10 April 2011.

⁵³ *Airbus Military A400M*, Jane's All the Worlds Aircraft, <<http://search.janes.com>>, accessed 10 April 2011

⁵⁴ *Boeing (Douglas) DC-3 Basler Turbo-67 (BT-67) Conversion*, Jane's Aircraft Upgrades, <<http://search.janes.com>>, accessed 10 April 2011.

ASF metric of 1,000 personnel in 14 days, estimating conservatively 3 to 5 aircraft running just 3 missions daily over 10 days.

Implement Joint Logistics Training

Acquiring aircraft is only one aspect of developing an effective operational logistics program. Significant training and resources must be dedicated to crew training, mission command, aircraft maintenance, aerial port operations, airfield operations, ground and sea transport integration, and logistics management. Funding and resourcing for this training must be long-term and established in a program of record.

Programs such as PILOT and AFRICOM's Africa Partnership Flight leverage air logistics training capabilities in the U.S. Air Force's mobility support advisory squadrons.⁵⁵ They already have the expertise and capability to address many of these training issues, but they need to be resourced and integrated to support the goal of ASF logistics self-sufficiency.

A light airlift capability can transport personnel and basic sustainment commodities, but vehicles and oversized cargo must be transported by larger airlift or ground or sea transport. Thus, a joint integration plan for the ASF with U.S. Army, Navy and Air Force personnel could help improve the velocity and efficiency of deployment and sustainment efforts.

TRANSCOM's follow-on capability to the JAT, the Joint Task Force–Port Opening (JTF–PO) element, is also a relevant model for developing a training program for the ASF. JTF–PO comprises U.S. military personnel with the capacity to establish and conduct air, ground, and sea deployment operations. This specialized team reduces the seams between the change-over from air to ground or sea to ground transportation and vice versa.

This capability was proven in 2010 when the JTF–PO opened and operated the Port-au-Prince airport and seaport for the first 45 days following the massive earthquake in Haiti. The JTF–PO effectively managed logistics distribution nodes during one of the largest disaster relief responses in recent history.⁵⁶

It has taken decades for the U.S. military to achieve effective joint operations. However, an ASF program that emphasizes a joint approach to operational logistics has the potential to allow the ASF to reap the benefits of joint operations much sooner, offering the AU a real chance at fielding a self-sufficient, self-sustaining security force.

The United States and the AU have shown a commitment to fostering security and stability on the Af-

rican continent through regional engagement. A fully functional ASF is an important step toward achieving that goal.

The primary ASF missions of crisis response, conflict resolution, and humanitarian assistance depend on the ASF's capability to deploy, sustain, and project logistics support. The lack of operational logistics and the resulting inadequate operational reach is the Achilles' heel that keeps the ASF from taking the next step to a becoming a fully functioning force. And the AU's regional security concept will lose momentum if the ASF cannot deploy or sustain its troops.

An innovative AFRICOM partnership with the ASF to develop airlift capability and improve integration of air, land, and sea transport can keep this momentum alive through judicious use of limited resources and funding. The implementation of an initial airlift program for the ASF will not solve all of its operational logistics challenges. However, AU member states will begin to have better control over their ability to respond to a regional crisis.

Success will be measured in years rather than weeks or months, but the process and the result will cultivate U.S. strategic partnerships in Africa and preserve access to an increasingly important region of the world.

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Editor's Note: In cooperation with the Army Logistics University, Army Sustainment has implemented the practice of a double blind peer review policy for all articles appearing in its "Spectrum" section. The magazine's goal is to ensure that only well-researched, balanced, and thought-provoking articles are published. Peer review is an objective process at the heart of good scholarly publishing and is carried out by most reputable academic journals. As part of this process, our authors and reviewers both play vital roles in maintaining the high standards of Army Sustainment.

⁵⁵ Captain Brooke Brzozowska, "Week One of Africa Partnership Flight Wraps up," 23 May 2012, <<http://www.africom.mil/getArticle.asp?art=7729&lang=0>>, accessed 25 October 2012.

⁵⁶ Matthew Jones, "CRG Experience in Haiti," *Air Land Sea Bulletin*, January 2011, p. 5.

Unit-Maintained Equipment Lessons Learned

Leaders of a unit-maintained equipment pilot program for an armored brigade combat team describe what is needed and lessons learned.

By Lieutenant Colonel J. Bradley Swift, Chief Warrant Officer 2 Luis V. Cartagena, and Captain Sabrina A. Gibson

The unit-maintained equipment (UME) pilot program is probably best understood as a necessary transition between the left-behind equipment program (LBE), in which the Army Materiel Command (AMC) maintains equipment that does not deploy with the unit, and steady-state maintenance operations at home station. The goal of the UME program is to reduce home-station maintenance costs while improving equipment readiness immediately following redeployment.

This article outlines what was needed to conduct a UME program in the 1st Armored Brigade Combat Team (ABCT), 1st Cavalry Division, and provides lessons learned from the experience.

The UME program in the 1st ABCT was administered through a memorandum of agreement among the key shareholders: the Army Forces Command G-4, the III Corps G-4, the Directorate of Logistics at Fort Hood, Texas, the 1st Cavalry Division commanding general, the Army field support brigade commander, and the 1st ABCT commander. This degree of governance is sufficient under the current construct because these agencies are the ones that will conduct and fund the UME effort. Involvement outside these shareholders, from a policy perspective, would unnecessarily complicate the UME program. Should the need to make refinements arise, the memorandum of agreement could be modified to include performance outcomes and standards for UME operations.

Five distinct phases can be identified within the UME program: resource preparation, joint technical inspection and inventory, induction, steady-state operations, and return to unit. Bear in mind that the UME phases must account for “road to war” activities, including block leave, gunneries, and rear-detachment inventories.

UME Program Manning

Developing a unit’s UME manning, which happens during the resource preparation phase, is the first critical step in establishing the program. Commanders must identify the right number of personnel with the correct skill sets and skill levels no later than 90 days prior to

deployment. This planning helps commanders establish a rear-detachment chain of responsibility that facilitates maintenance of the nondeployed fleet throughout the deployment.

In recent contingency operations, commanders typically deployed with a portion of their home-station equipment and signed for various theater-provided equipment (TPE) fleets. Commanders must split their supply and maintenance assets to handle the competing requirements of servicing large amounts of deployed TPE and nondeployed equipment.

UME supply operations. The rear detachment brigade S-4 oversees the property book officer (PBO) and all UME supply operations. The rear detachment unit commanders are hand receipt holders for all of the companies within their battalions.

Each company commander should assign a property team consisting of one noncommissioned officer (NCO) and three Soldiers. (These numbers can be adjusted depending on the density of equipment.) The primary functions of the property team are to ensure the security and storage of all property and to conduct monthly sensitive item and cyclic inventories. Normal functions of command supply discipline, such as lateral transfers, turn-in of excess equipment, and maintaining shortage annexes, must still be completed as part of the UME program. (See chart on page 20 for a sample UME task organization.)

UME maintenance operations. The UME maintenance program should consist of the unit maintenance team, the brigade maintenance support team, and access to direct support-level maintenance.

The unit maintenance team should consist of one NCO and a number of Soldiers proportionate to—and in military occupational specialties (MOSs) corresponding with—the equipment in each battalion. This team is responsible for all preventive maintenance checks and services (PMCS); hanging parts; test, measurement, and diagnostic equipment (TMDE) calibrations; Army Oil Analysis Program (AOAP) sampling; and pre- and post-service road tests.

The brigade maintenance support team is led by the brigade maintenance officer, one sergeant first class as the brigade maintenance sergeant (BMS), and one warrant officer as the brigade maintenance technician (BMT). For ABCT operations, one of these three leaders should have a background in a heavy combined arms battalion.

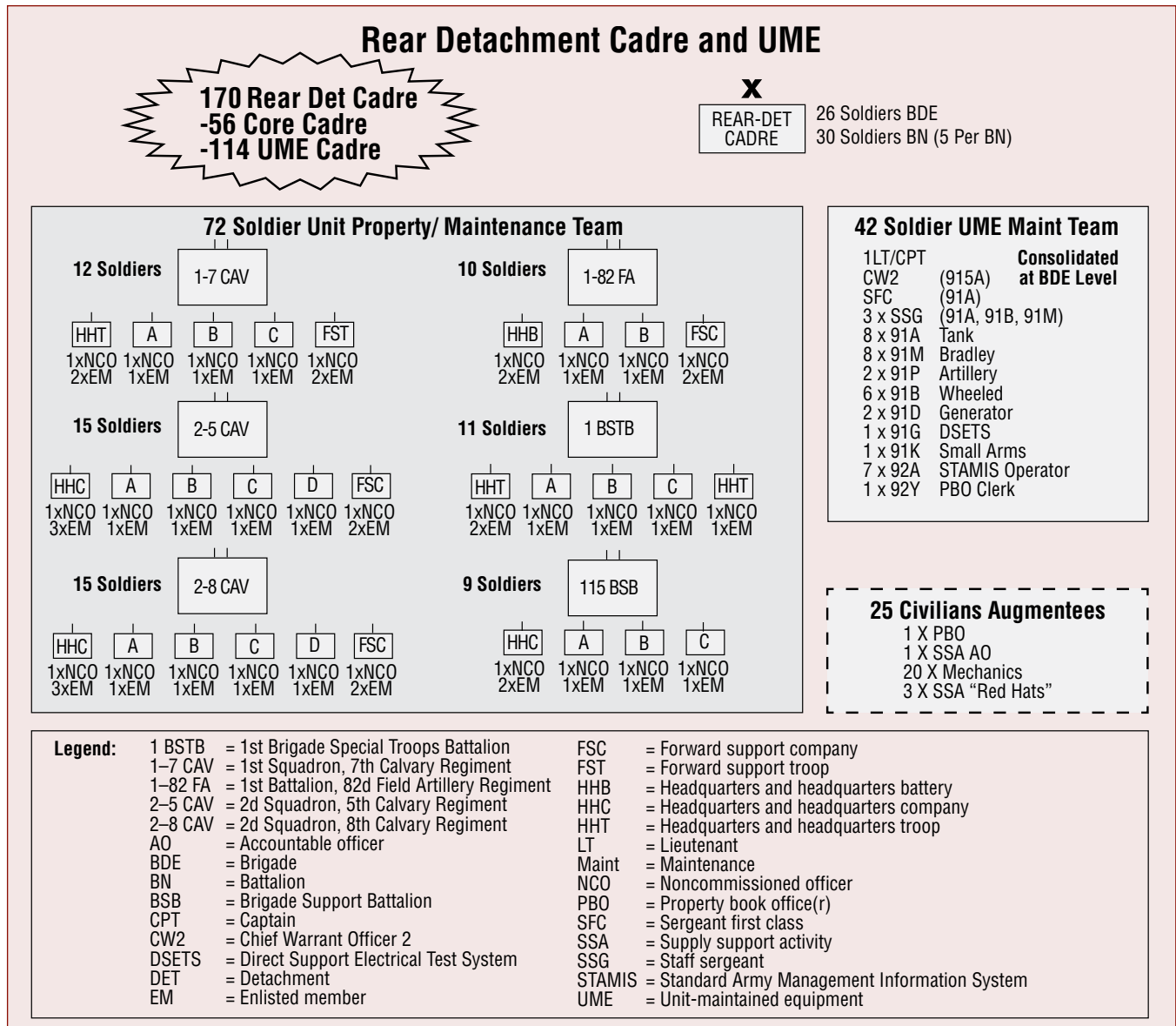
The brigade maintenance support team will troubleshoot and install all parts, conduct tracked and wheeled vehicle services, and assist with all combat vehicle services. The Soldiers assigned to the team should again be MOS proportionate to the amount of equipment inducted into the UME program.

The UME maintenance program should also be able to provide additional –30-level maintenance assets in order to further reduce the cost of the UME program and

increase throughput for all services and unscheduled maintenance. Direct Support Electrical Test System and armament shops are critical to servicing M1A2 Abrams main battle tanks and M2 and M3 Bradley fighting vehicles. Ground support equipment and service and recovery shops for generators, batteries, recovery, and welding are also necessary to support scheduled and unscheduled maintenance on low-density equipment.

Civilian augmentation. Civilian augmentation is necessary to provide low-density skill sets required on both the UME property team and maintenance team. The rear detachment must have civilians acting as the property book officer, the supply support activity accountability officer, and mechanics to conduct UME operations. All civilian augmentees should be governed by a specific memorandum of agreement that clearly defines the

This chart depicts a sample task organization for an armored brigade combat team unit-maintained equipment program.



number of personnel to be provided and the beginning and ending dates for work.

The UME program is ultimately a brigade-level operation. The planning of UME operations will coincide with various predeployment activities, including block leave, Soldier Readiness Program activities, and qualification gunneries. Therefore, brigade leaders must ensure that sufficient time and resources are allocated to ensure the successful setup of the UME operations.

Phase I: Resource Preparation

Resource preparation is conducted from 120 days before deployment until 75 days before deployment. During this time, it is essential to identify the personnel that will be manning the UME program after the brigade deploys. Those selected to man the UME program should focus solely on UME preparation. Civilian augmentees should be requested no later 110 days prior to deployment and should be available for planning operations as soon as possible. All Soldiers selected as a part of the UME maintenance team must be vetted by either the BMS or the BMT.

The logistics information system (LIS) architecture for the UME program should be developed and exercised to ensure connectivity no later than 75 days before deployment. During the same timeframe, all special tools needed by the UME program should be identified, inventoried, and assigned to the UME maintenance and property teams.

For the maintenance assets, special attention should be given to the very small aperture terminal, Standard Army Maintenance Systems, Direct Support Electrical Test System, Automated Reset Management Tool, service and recovery shop equipment, and vehicle ground hop kits and test stands. [A hop kit includes the vehicle components needed to inspect an engine for malfunctions while the engine is outside the vehicle.]

The units should begin to conduct initial technical inspections of equipment in order to bring all equipment to a -10/-20 standard. All services conducted by the unit before deployment should be biennial services for wheeled vehicles to facilitate a more realistic workload for the UME maintenance team.

Phase II: Joint Technical Inspection and Inventory

Joint technical inspection and inventory is intended to bring all equipment to -10/-20 standard before handing it over to the UME maintenance and property teams. Not-mission-capable equipment left to UME assets will ultimately reduce readiness rates during the UME program and delay the return of usable equipment after deployment. As the joint technical inspections are conducted, all equipment should be transferred from the battalion LIS to the UME LIS. The BMO or BMT should review and correct all LIS data before it is accepted.

During this phase, unit commanders should set priorities for work within their formations and the UME maintenance team should set a service schedule for the deployment period.

Phase III: Induction

Induction is the period where all equipment is transferred from forward to rear detachment unit identification codes. The joint technical inspections should be validated by a team of senior mechanics. Department of the Army Form 2404, Equipment Inspection and Maintenance Worksheet, forms that are generated as a final record of the inspections should be validated and filed by UME maintenance leaders. The brigade leaders must also determine the extent to which the UME program will use the low usage program and the expectations and policies they will put in place regarding the conduct or suspension of semi-annual services for systems not eligible for low usage.

Phase IV: Steady-State Operations

Steady-state operations begin 15 days before deployment and continue for the length of the deployment. It is essential to have the service schedule finalized before steady state operations begin. The schedule must be based on the realistic man-hours available and required for each service to be conducted to standard. (The goal of the 1st ABCT was to service all pacing items within the brigade formation and to create a combat service support package of 50 percent of the remaining fleet. Pacing items are the most important pieces of equipment in the unit, as noted on its modified table of equipment.)

The unit also must develop a PMCS plan to be conducted throughout UME. Because of personnel shortages, weekly PMCS of the entire fleet is not sustainable. However, monthly PMCS is more than possible with the caveat that all pacing items are started and run for at least 2 hours weekly.

Phase V: Return to Unit

The return to the unit should begin 45 days after redeployment and be complete no more than 15 days later. In order to facilitate this, all LISs should be hand-carried back to home station. The brigade S-4 and support operations officer should develop a written and explicit timeline for the deactivation of UME unit identification codes and Department of Defense activity address codes, and the return of LIS data. The S-4 will also determine who will provide data for Logistics Support Activity reports and accept vehicles handed over by the returning unit commanders.

Lessons Learned

The UME pilot at the 1st ABCT, 1st Cavalry Division, has provided a number of lessons learned that can be

applied to future UME programs Army wide.

Setting the conditions for the UME program is just as important as conducting it. Planning must begin with a thorough mission analysis. The following factors will drive the composition and workload of the UME team: baseline equipment readiness prior to deployment, the unit's forward mission, the unit's rear-detachment mission, funding constraints, equipment and personnel densities, and the availability of UME Soldiers. A cookie-cutter approach is unlikely to succeed, given the range of variables across the factors mentioned.

For example, a brigade combat team that is scheduled to conduct a security forces assistance team mission will typically deploy with much less than the entire brigade's strength, leaving substantial manpower behind. This could create a false impression of the rear-detachment's ability to conduct and supervise a UME effort when one considers that a typical security forces assistance team composition requires a disproportionate percentage of the unit's NCOs, the very leaders necessary to supervise maintenance. The addition of regionally aligned units to geographic combatant commands and units with prepare-to-deploy orders can further constrain the rear-detachment personnel.

Choose the appropriate UME method. There are at least two UME methods for prioritizing maintenance efforts: "training sets" and "pacers first." The approach selected in the planning phase will dictate which vehicles are serviced and with what priority. Vehicles not inducted to the UME service forecast will, by default, have to be inducted to the low usage program or the administrative storage program.

The "pacers first" approach focuses on the unit's pacing items. The "training sets" approach focuses on complete company training sets, including supporting wheeled vehicles to allow for collective training earlier in the recovery phase. Risks and benefits are associated with each approach. Unit commanders must decide where to assume risk and where to provide emphasis based on their unique conditions.

Start joint technical inspections early. Joint technical inspections between the unit's UME personnel and the parent unit must begin no later than 90 days before deployment. Both parties must include experienced leaders to monitor the technical inspection process and ensure candid reporting of the vehicle's deficiencies. Many units require an increased operating tempo and a corresponding equipment usage rate in the last 120 days before deployment. This makes joint technical inspections critical because handing over a vehicle in poor condition simply shifts the burden to the UME program. The standard needs to be that all -10/-20 deficiencies are captured during the joint technical inspections and all parts are ordered.

Understand the difference between readiness reporting and -10/-20 standards. The technical manual (TM)

for each piece of equipment outlines the Army -10/-20 standard maintaining it. The challenge is not in understanding the standard but rather knowing the difference between readiness reporting and the -10/-20 standard. Most units define fully mission capable (FMC) as the positive result of completing the PMCS checklist in the TM. Most units further define this as "FMC + safety," which means a positive PMCS checklist result plus no safety deficiencies that deadline the vehicle. For example, an inoperative brake light, turn signal, or windshield wiper does not deadline a vehicle per the TM but would usually deadline a vehicle for safety reasons.

Army leaders at the enterprise level attempt to re-source equipment and vehicle maintenance to the -10/-20 standard, but unit leaders often observe a disconnect between the resources available at the unit level and the expectation. Funding constraints have driven sustainment managers to cancel select non-mission-essential parts even though they are required in order to meet -10/-20 standards. It is understandable for a unit to lose interest in identifying -10/-20 faults that do not deadline a vehicle per the PMCS checklist when the parts are either not placed on order or are canceled from the manager review file. This is why units often use the PMCS checklist FMC standards to gauge readiness instead of -10/-20 standards.

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Garrison and Facilities Management Advising and Mentoring

A logistics officer offers a survival guide for helping the Afghan National Army improve its garrison organizations and assume the management of its facilities.

By Captain Brian R. Knutson

Why is there no water pressure in the barracks? Why are the floor drains in the dining facility blocked? What is the status of the security upgrades to the entry control points? Why can't we change the contract for the electrical conduit in the barracks?

I commonly received these and many other questions during my first few weeks as the adviser to the Kabul Military Training Center (KMTC) garrison commander in Afghanistan. I am a logistics officer by trade, so my experience and skills in engineering and facilities management were a bit lacking.

What follows is a summary of my observations, experiences, and recommendations that others can use if they find themselves in a similar role in a deployed environment. I do not intend to discuss the differences between the U.S. Army and

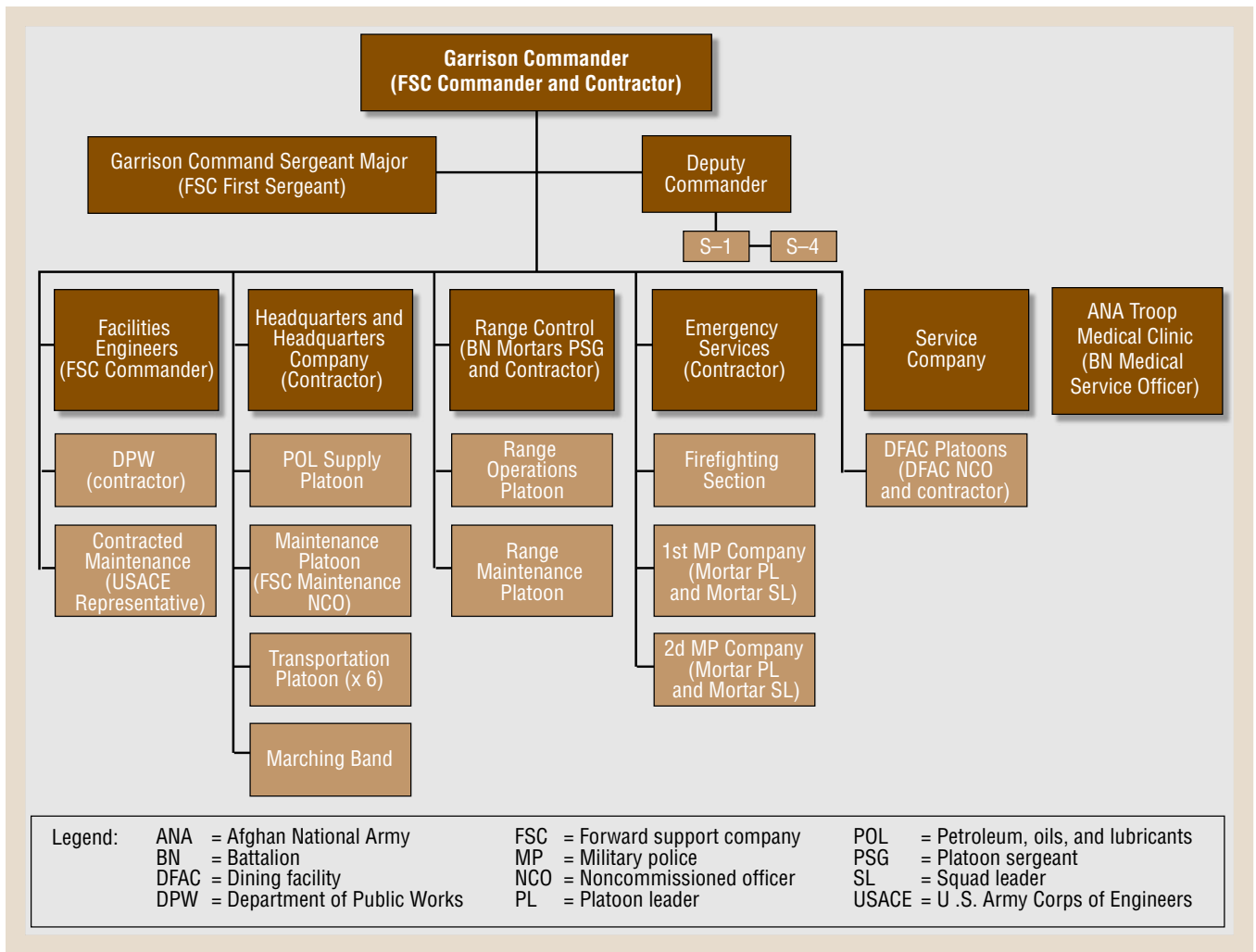
the Afghan National Army (ANA) or which operates better. As coalition leaders, we do not always agree with our coalition counterparts on how to accomplish a mission, but we must work together to find common ground and improve conditions for our allies. My goal is to inform potential advisers about the tactics and techniques we used and make several recommendations for how we can assist our Afghan counterparts in assuming the lead role in garrison and facilities management.

The KMTC Garrison Staff

My unit, the 2d Battalion, 22d Infantry Regiment, 1st Brigade Combat Team, 10th Mountain Division (Light Infantry), was assigned as advisers to the ANA's primary initial-entry-training facility in Kabul (equivalent to our Fort Benning, Georgia). The KMTC installation hosted more than 10,000

Soldiers and their ANA counterparts work together at the Kabul Military Training Center to construct tents to be used for literacy training.





This chart depicts the chain of command of the Kabul Military Training Center garrison. U.S. advisers are shown in parentheses.

ANA soldiers daily and trained personnel at all levels from initial-entry training to branch-specific schools (such as food service personnel and mechanics).

We advised and mentored Afghan Army leaders, from the KMTC installation commander to initial-entry training instructors. Included in this group were garrison leaders, facilities engineers, maintenance personnel, and military police.

The KMTC garrison staff structure was minimal. However, a good support network was in place to support the installation. In a fashion similar to our Army, the ANA's personnel strength is drawn from a modified table of organization and equipment document called the tashkil. The tashkil lists the rank and number of civilian and military personnel authorized by location.

KMTC was authorized more garrison personnel than a smaller training center or operating base, such as in Khowst, because of its vast training responsibilities. Without discussing specific ranks and number of personnel authorized, the chart above illustrates the garrison command structure according to the tashkil and where our unit was able to supply advisers and

mentors to ANA personnel. It shows where the garrison command needs a significant improvement: the garrison staff.

The ANA garrison staff consisted of two lieutenants, an S-1 and an S-4. This was hardly adequate to support a facility that can train more than 10,000 ANA soldiers at a time. A garrison staff was responsible for all permanent party and trainees on KMTC, so a robust staff (to include an S-2, an S-6, and others) was not required in the garrison headquarters. However, a more robust garrison staff could prioritize garrison responsibilities and projects and support permanent party personnel, who often are the lowest priority for competing resources.

Security and the Military Police

Before making recommendations for changes to the garrison staff and personnel, I should note where the ANA and the current garrison and facilities structure are working well. The KMTC garrison placed significant emphasis and energy on its military police units and security. The entire chain of command understood the importance of security in allowing the ANA and its coalition partners to continue training recruits.

Our unit further emphasized the role of the military police by appointing several officers and NCOs to advise and mentor military police leaders. With advisers working with the military police, the garrison command team, and installation S-2 shops, we were able to demonstrate to the ANA the value of communication and teamwork in accomplishing a mission.

One significant challenge in working with the Afghan military police was giving contracted access to the installation. The military police were very wary about allowing contracted personnel onto the installation. Obviously, this apprehension stemmed from wanting to keep the ANA soldiers at KMTC safe from the enemy.

However, a problem arose because KMTC contractors were hired by a contracting office located on a different coalition installation. When laborers and supervisors showed up at the gates of KMTC, the military police did not always allow them access.

The most efficient way to fix this problem was to have the supervisors from the local company (who usually spoke English) and their U.S. supervisor (if they had one) meet the ANA garrison commander. This allowed the garrison commander to meet the contractor leaders and discuss their work in further detail. This was much easier than using my interpreter to describe the work to be done, and it avoided the problem of trying to provide access for personnel whom the garrison commander did not know.

Contractors and U.S. supervisors who meet with their ANA counterparts often can accomplish much more. This practice also recognizes the importance of personal relationships when dealing with coalition partners. Keep in mind that conversation in a social setting is very important in a culture such as Afghanistan, and much more will be accomplished if this is conducted up front before any work begins. If you have participated in any type of key leader engagement train-

ing, you understand the type of relationship and trust that must be built with your ANA counterpart.

Training Afghan Civilian Employees

With more than 10,000 personnel and more than 60 buildings, KMTC has a significant system of facilities that must be managed and maintained in order to continue training new ANA recruits. To accomplish this, an Army Corps of Engineers civilian played a critical role as the operation and maintenance (O&M) supervisor. One of his key tasks involved supervising the contracted company that performed O&M on the installation.

As you can see from the tashkil, KMTC had an authorized civilian Department of Public Works (DPW) workforce. However, at that time, the civilian workforce did not possess the technical skills and training required to operate an installation of this size. More specifically, KMTC had a power plant, wastewater treatment facility, and water-storage facility that required technical expertise to maintain and operate. Managing all of these facilities and the constant work order requests was too much for an unskilled labor force to handle.

Many Afghan civilian employees shadowed the contracted workers and learned some of their skills. An adviser-mentor or contracting officer's representative must be careful not to ask a contractor to do anything outside the scope of his contract. If shadowing was not specifically stated in the contract, the contractor could forbid the Afghan civilian employees from shadowing his workers.

Our higher headquarters, the Combined Security Transition Command-Afghanistan (CSTC-A), and the Army Corps of Engineers recognized the limited timeline we had to establish and train a DPW civilian workforce. Several programs were established to remedy this problem. CSTC-A created the Installation Transition Advisory Group (ITAG) to train the garrison and facilities management teams for the ANA.

B-huts under construction at Kabul Military Training Center.



ITAG focused primarily on some of the smaller ANA installations that did not have robust or adequate garrison facilities management teams in place. This team made vast contributions toward the eventual handover of garrison command and facilities management responsibilities. The Army Corps of Engineers also addressed this problem by establishing a skilled labor training program for Afghan civilians. This program taught everything from concrete and masonry work to electrical wiring and plumbing. These programs allowed us to begin to hand over the maintenance and construction responsibilities of ANA installations to our Afghan partners.

Changing the Garrison Organization

Updating or changing the tashkil was not an easy task, and many changes are still required to have a successful and effective garrison command. A review board was conducted twice a year, and recommendations were not always accepted. The tashkil review and approval process was several pay grades above my own, and it was most likely regulated and somewhat influenced by politics. Nevertheless, I believe that a garrison command structure for an ANA installation of this size requires authorized personnel similar to what the chart below shows. I believe this would be a much healthier staff with three additional areas of responsibility: S-3 (future operations), housing (current operations), and safety.

The S-3 section would plan for upcoming construction projects, school moves, and facility responsibilities. During my time as an adviser, the growth in quantity and quality of the ANA was a top priority for our higher headquarters. Since KMTC was such a large installation and capable of training thousands of ANA soldiers, significant emphasis was placed on increasing the number of training courses on the installation. This often became

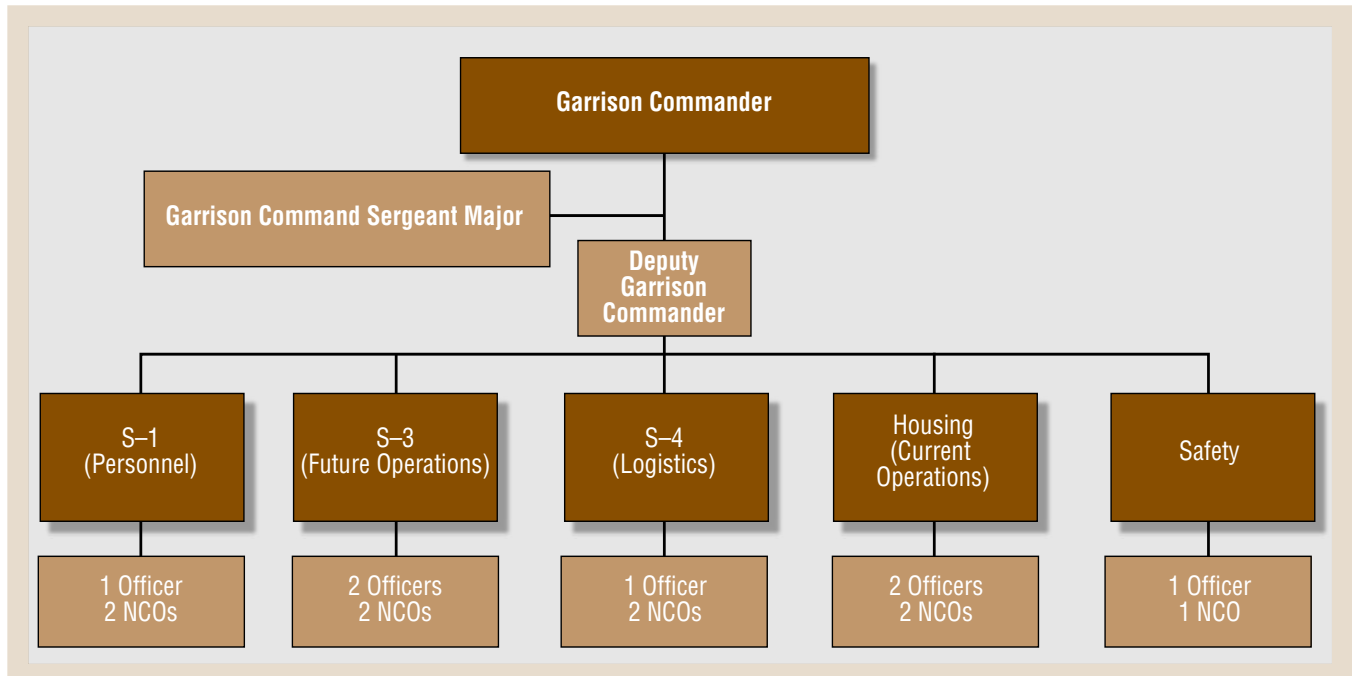
a source of great frustration since only a finite number of facilities were available to support the ever-increasing number of trainees.

New facilities also take a long time to build and require a significant amount of time and money to complete. A garrison S-3 shop could work with the installation S-3 to plan for upcoming changes to courses, personnel numbers, and facility allocations. At the time, no future planning was conducted, and the garrison commander was left to figure out and fulfill these needs, usually with little notice before a new training course started and living space was needed. A staff section that receives guidance from the garrison commander could accomplish the task much better.

Adding a staff section to concentrate on current housing needs (such as current building allocation, offices, and maintenance problems) would greatly benefit the ANA garrison staff. Work orders generated by the ANA training staff (such as initial-entry training NCOs and officers) were given directly to DPW with no oversight or guidance from the garrison commander. This was not a problem when dealing with simple leaky faucets, but many outlandish requests detracted from DPW's ability to organize and prioritize its work. If work orders go through a garrison staff member with oversight exercised by the garrison commander or deputy commander, the leaders could provide guidance, set priorities, and act as a filter for unwarranted or unneeded requests.

The final staff section I recommend is an ANA garrison safety officer and NCO. In the U.S. Army, safety teams are assigned to each installation to ensure that safety is incorporated into all levels of training and operations. If we can convince our coalition partners that they need to devote the same level of attention to safety, we would create an additional way for the

This chart describes the author's proposed garrison staff for the Kabul Military Training Center.





The foundation for a b-hut under construction at Kabul Military Training Center.

ANA to take charge of its roles and responsibilities while looking out for the welfare of its soldiers.

Using U.S. Army Expertise

Another way that U.S. forces can more easily transfer garrison responsibilities to our Afghan partners is to use our Army's garrison experts from the Installation Management Command (IMCOM). If IMCOM could assemble several teams to act as advisers to the Afghan garrison leaders, we would emphasize garrison management as an important aspect of the transition of responsibilities. Each team would require several key personnel to effectively advise or mentor the Afghan leaders, including the garrison commander and sergeant major, military police, DPW, construction engineer, and food service advisers.

However, IMCOM could not assemble a team for each ANA installation. Some Afghan bases are just too small for an IMCOM advisory team to be necessary. In these cases, it makes more sense to work with a larger Afghan garrison team to conduct a garrison or facilities management conference. Smaller Afghan garrison teams then could visit a larger installation, learn different techniques, and compare strategies as transition occurs.

As we transition Afghanistan security from coalition to ANA responsibility and control, many areas require the U.S.

Army's attention, effort, planning, and resources. Many of us understand that in order to effectively meet the commander's intent, the organization must devote significant manning and resources toward that goal.

Garrison and facilities management may not seem like an area that the U.S. Army should be concerned about during this transition period. However, imagine if funding were removed from Fort Benning or Fort Jackson, South Carolina. That would have a significant effect on our ability to sustain our Army with new recruits and train other Army units to prepare to execute combat operations.

The same holds true for the ANA as it grows and trains its fighting force. The U.S. Army can continue to use the same garrison strategies and principles that it has employed in Iraq and Afghanistan during future operations or while working to assist other allies. Garrison and facilities management is a vital area we must continue to emphasize to ensure a smooth transition of responsibilities and foster success and mission accomplishment for our allies.

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Soldiers from the 109th Transportation Company transport ammunition containers from the Port of Valdez to Fort Wainwright, Alaska.



Operation Midnight Sun: Multifunctional Logistics in the Last Frontier

The 17th Combat Sustainment Support Battalion worked with several Department of Defense organizations to transport ammunition across Alaska and deliver it to Army ammunition supply points.

By Major Timothy J. Barrett

Twice a year, an ammunition barge arrives at the Port of Valdez to resupply all Department of Defense forces stationed in Alaska, including the U.S. Coast Guard (USCG). The first arrives in early spring, the second in early fall. The spring ammunition barge is typically the smaller of the two. This has traditionally been a “port-to-door” contracted move from the contiguous United States (what Alaskans call “the lower 48”) to the ammunition supply points (ASPs) in Fort Wainwright, Alaska (FWA), and the Fort Richardson side of Joint Base Elmendorf-Richardson, Alaska (JBER).

The 17th CSSB’s Mission

The commander of my unit, the 17th Combat Sustain-

ment Support Battalion (CSSB), believed that taking on this mission would be a great training opportunity and would engage multiple capabilities within the battalion. As time would show, this event also provided a great opportunity for the CSSB to work with multiple DOD entities, including the U.S. Air Force, Alaska Army National Guard, and USCG.

Because of the 17th CSSB’s many deployments in recent years, the battalion headquarters and the 109th Transportation Company (established in Alaska in 2006 and 2009 respectively) had never before been available at the same time to conduct this mission. This operation included the recently formed 205th Ordnance Platoon to support ASP operations.

Because of our location, we conducted our coordina-



tion and planning through the U.S. Army Alaska (US-ARAK) G-4 rather than through the battalion's nominal headquarters, the 45th Sustainment Brigade.

We realized early in the planning process that the mission included a requirement to retrograde ammunition from FWA and JBER to the Port of Valdez (in addition to delivering the ammunition). We were eager to take on this portion of the mission, but the USARAK G-4 gave us some sage advice: It was preferable to get our foot in the door and do the small things well, build our reputation as a premiere support battalion, and then increase missions in the future. The point was well taken.

Reconnaissance

The reconnaissance for this operation was conducted in February. The reconnaissance team included the support operations officer (SPO) and members of the 109th Transportation Company. Before our departure, we contacted the Surface Deployment and Distribution Center-Alaska (SDDC-AK) commander to plan our itinerary. Our first stop was to the Alaska Army National Guard's armory in Valdez, where we would stage and conduct our operations.

We made a few quick observations. First, the snowfall in Alaska that year broke records. More than 8 feet of snow had accumulated throughout the city and at the Port of Valdez. This would affect the execution of our operations in May. We also observed a significant lack of space within the armory to support both a sleeping area and a maintenance area. Another venue to support maintenance operations had to be found.

We later met with the director of the Port of Valdez, who gave us a tour of the port and an overview of how it

operated. During our reconnaissance, we noted a Coast Guard maintenance bay just east of the port director's office. We then met with the Coast Guard warrant officer, who directed us to his colleague's motor shop on the far side of Valdez. The USCG kindly offered not only its maintenance bay for backup support but also its galley to feed the permanent party.

Preparing for the Mission

When we returned to JBER, we continued with the planning process. Since the consolidation of Elmendorf Air Force Base and Fort Richardson into JBER in the summer of 2010, JBER has been an Air Force-led installation. The 17th CSSB used this as an opportunity to continue building our relationship with our Air Force counterpart, the 773d Logistics Readiness Squadron (LRS). We invited representatives from the 773d LRS to our battalion field training exercise in March 2011. They actively participated in convoy training, convoy operations, and staff planning for the operation, which would be called Operation Midnight Sun (OMS).

The staff followed a deliberate planning process. The SPO presented the facts, planning factors, and support requirements, and the 773d LRS offered to provide support, including assets from their transportation motor pool. Over time, additional in-progress reviews were conducted to discuss topics such as communication requirements, quality assurance specialist-ammunition surveillance (QASAS) requirements, and physical security, including armed escorts.

According to USARAK Regulation 190-1, Military Police Physical Security, two forms of communication are required on all convoys moving ammunition throughout

Port workers load an ammunition container onto a flatbed trailer at the Port of Valdez.





Sergeant Jose Barada, 109th Transportation Company, uses a hammer to lock the mechanism that holds the container to the trailer at the Port of Valdez. (Photo by SSG Brian Ferguson)

Alaska. We met this requirement using Government-issued cellphones and the Alaska Land Mobile Radio System (ALMRS). ALMRS is an excellent communication option that is very useful in the vast open space of Alaska.

During the in-progress reviews, three stages of QASAS were planned for the execution of this mission. The first stage would be conducted at JBER before the 109th Transportation Company's departure. The last two would be conducted at the Port of Valdez. The results of the last two QASAS stages were executed without major incident.

We planned the armed escort requirements according to USARAK Regulation 190-1, Appendix G. One Soldier carrying force protection ammunition was required to be present during the transport of ammunition. The US-ARAK commander confirmed the additional requirement that each Soldier who would be handling force protection ammunition would receive a briefing from the USARAK legal office about the rules of engagement.

We also used this event as an opportunity to integrate the 205th Ordnance Platoon with the civilians that run the FWA and JBER ASPs. While continuing to work with the civilians at JBER, the 205th Ordnance Platoon sent a detachment to FWA to bolster the ongoing working relationship. This relationship would be critical in preparing for the increased workload required during the fall ammunition barge operation.

Another critical piece that came into effect before the execution of OMS was the use of fuel purchase cards. Three weeks before mission execution, the SPO section

received six fuel cards to divide between the 109th and 539th Transportation Companies. The cards were for purchasing civilian-rated fuel and reducing the support footprint both for this operation and for Operation Polar Express, the weekly supply mission between FWA and JBER.

One week before the execution of OMS, the 17th CSSB conducted a battalion rehearsal of concept drill. During the briefing, it was noted that the representatives from the SDDC-AK, civilians from the ASPs at FWA and JBER, and the QASAS office should have had a more active role. This was corrected before the fall barge operation.

Mission Execution

The operation was executed upon notification of the barge's arrival on 27 April. Two convoys consisting of 32 vehicles in 8 serials departed JBER and headed to Valdez. Although plenty of snow covered the treacherous Thompson Pass into Valdez, the movement to the port proceeded without incident. Our original plan to stage all of our vehicles at the National Guard armory had to change because the ground was still covered in more than 4 feet of snow.

After a joint briefing among the USCG, SDDC-AK, and 17th CSSB, we coordinated with the SDDC-AK to walk through the port and identify a space for the entire convoy. With SDDC-AK's help, we were able to stage every M915 line-haul tractor with trailer at the port without incident.

The second and third stages of the QASAS inspection



Soldiers from the 109th Transportation Company receive a safety briefing before departing the Port of Valdez for Fort Wainwright. (Photo by SSG Brian Ferguson)

were executed smoothly, as 14 containers were loaded and sent to FWA and 13 containers were sent to JBER. Because of the hauling capacity of the M915s, only one container was loaded on each flatbed.

More than 317 tons of ammunition were moved, traveling a combined total of 38,000 miles. The US-ARAK G-4's initial guidance to focus on just hauling ammunition to the ASPs was prudent, since we were also responsible for returning the empty containers to Valdez. Our 205th Ordnance Platoon supported both the packing and unpacking of containers at both the JBER and FWA ASPs.

Lessons Learned

After the operation was complete, we conducted an after-action review. One critical problem that was identified concerned the creation of proper travel orders through the Defense Travel System. Since this was a training exercise, there was no "single" solution because multiple elements moved through various areas. In the future, time and energy will be saved by creating a travel orders roll-up for each of the five distinct groups of Soldiers that support the operation. These groups include the advance party, the two original convoy groups that haul ammunition from Valdez, and the two consolidated groups that return the empty containers from FWA and JBER to Valdez.

We also identified problems with the feeding plan. It was our original intent for all personnel to eat at the USCG galley. We later realized that the galley could support only the advance party and not the personnel from the main body. This resulted in an increased cost of the

operation because each Soldier received per diem meal rates for the town of Valdez.

In preparation for the fall barge, we brought a mobile kitchen trailer to the National Guard's armory in Valdez to feed the Soldiers supporting the operation. This reduced costs and increased the mission's training value, especially for our food service specialist Soldiers.

Through OMS, the 17th CSSB established its reputation as a premiere support battalion in Alaska. Later in the year, we offered our available transportation assets to prepare for the fall barge. These assets included the 486th Movement Control Team and the 539th Transportation Company, both of which had recently returned from deployments.

Since OMS, we have increased the integration of the 205th Ordnance Platoon with the FWA and JBER ASPs. The 17th CSSB has also taken steps, in conjunction with USARAK G-4, to expand the involvement of the 773d LRS and the Alaska Army National Guard in the planning process. This effort included the formation of a joint movement control board that serves as a forum to effectively identify all Department of Defense movement requirements throughout Alaska.

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Operation Deep Freeze 2012

For the first time, the Army and its only modular causeway system company provided logistics-over-the-shore support to resupply research stations in Antarctica.

By Captain Christina C. Shelton and Second Lieutenant Bill Battles

The mission of the 331st Transportation Company, 11th Transportation Battalion, 7th Sustainment Brigade, located at Fort Eustis, Virginia, is to provide a mobile pier powered by small Army vessels for the discharge of cargo and equipment from watercraft to an unimproved shoreline or degraded fixed-port facility. It also provides floating facilities for the rapid discharge of rolling stock from roll-on-roll-off cargo ships and other vessels.

The 331st Transportation Company has a long history in the Transportation Corps and a very unique place in the Department of Defense (DOD) inventory. It carries the DOD's only modular causeway system

(MCS). Its Soldiers train year round for worldwide deployment in support of wartime and humanitarian aid missions.

Operation Deep Freeze

In 2012, the 331st Transportation Company displayed its capabilities during Operation Deep Freeze 2012 in Antarctica. Operation Deep Freeze is the annual resupply mission to research stations on the continent of Antarctica, including McMurdo Station, Palmer Station, and Amundsen-Scott South Pole Station.

The Army had not participated in Operation Deep Freeze in nearly 20 years, and this was the first time

Warping tugs and crews wait below for causeway pieces to be lowered into the water, where they will then zip pieces together with locking pins during Operation Deep Freeze 2012 in Antarctica. (Photos by CPT Christina Shelton)



Army watercraft were used for the mission. Regular participants in this mission are the National Science Foundation (NSF), the parent organization of the U.S. Antarctic Program; the U.S. Air Force; the U.S. Navy; the Military Sealift Command (MSC); the New Zealand Defense Forces; and Raytheon Polar Services, a civilian agency contracted by the NSF.

Army Watercraft Support

In the past, a large man-made ice pier was used to discharge the resupply vessel, but an unusually warm winter prevented the pier from reaching the structural integrity required for the operation. A suitable alternative was needed. The NSF discovered the capabilities of the MCS, requested MCS support, and entered into discussion with



the Army to determine its feasibility.

Since the 331st Transportation Company trains for logistics-over-the-shore missions year round and employs its mobile piers in various environments, Operation Deep Freeze was exactly the type of real-world mission for which the MCS was designed.

Operation Deep Freeze required a pier able to sustain

Cargo operations are conducted on the MV Green Wave causeway during Operation Deep Freeze 2012.



24-hour crane and truck operations and a crew to build and maintain the pier. After a thorough analysis of the problem set, a T-shaped pier measuring 160 feet long (from ship to shore) and 144 feet wide was designed and a crew of 41 Soldiers was designated to build and maintain the pier.

Getting to Antarctica

Fifty-three trucks transported the cargo, which included two modular warping tugs and auxiliary gear, to Port Hueneme, California. [A modular warping tug is a section of causeway powered by two diesel motors and manned by a five-person crew.] In California, the cargo was loaded onto the Merchant Vessel (MV) *Green Wave*, which MSC contracted to deliver both the causeway and the supplies for McMurdo Station. A crew of eight Soldiers flew out to California to assist in the upload of equipment onto MV *Green Wave*.

In early February, 331st Transportation Company Soldiers flew to Christchurch, New Zealand (a U.S. Antarctic Program launch point for Antarctic missions). There the crew received specialized cold-weather gear designed for manual labor during the ship offload in Antarctica. Once outfitted, the Soldiers boarded a Boeing 757 operated by the Royal New Zealand Air Force and flew to McMurdo Station, landing on the Ross Ice Shelf runway atop 1,000 feet of solid ice.

The first few days in Antarctica were consumed by in-processing, site surveys, moving into dormitories, and getting familiar with the area.

Winter Quarters Bay, where the operation was going to take place, is the site where the first Antarctic expeditions to the South Pole began more than 100 years ago. MSC contracted a Russian ice-breaker vessel, the *Vladimir Ignatuk*, to break up ice within the channel so that MV *Green Wave* could gain access to the bay. The old, unstable ice pier was disconnected, with the help of a few hundred pounds of dynamite, and moved to a temporary location south of the offload site.

The Mission Begins

The mission began in earnest on 14 February, when MV *Green Wave* arrived and was moored to the old ice pier. With MV *Green Wave* in position, the first step was to offload the two warping tugs. Once the tugs were in the water and fully operational, Navy Cargo Handling Battalion 1 (NCHB-1) and the pier crew from the 331st Transportation Company began assembling causeway sections off the side of MV *Green Wave*.

Within 72 hours, the pier was fully assembled and secured to the ice wharf, where two bulldozers held it in place with steel cables and winches. In addition, several lines were tied to bollards (strong posts on the wharf), and the tugs were positioned on either side to provide support.

Logistics Over the Shore Operations

Once the pier was in place, the offload began. Over the next 8 days, NCHB-1, Raytheon Polar Services, and drivers from the New Zealand Defense Force unloaded across the causeway more than 8 million pounds of cargo to be used by research stations and field camps across the continent.

Drivers returned to the ship with 7 million pounds of ice, rock, trash, recycling, and unneeded equipment that was then back-loaded onto the vessel. This effort involved every major organization at McMurdo Station, including the fire marshal, the maintenance facility, ground operations, port operations, and supply operations. It was truly a joint and multinational effort.

The Return Mission

Breaking down the causeway took only 36 hours. As soon as the last warping tug was loaded onto MV *Green Wave*, the ship departed for California. The Operation Deep Freeze crew out-processed McMurdo Station and boarded a U.S. Air Force C-17 for New Zealand a day later.

By 5 March, all personnel were back at Fort Eustis. A crew was sent to California to meet MV *Green Wave* and facilitate the return of equipment to Virginia by rail using

22 DOD-owned railcars. The cargo was delivered on 25 April.

Soldiers from the causeway crew were recognized on 10 April by U.S. Air Force General William Fraser, the Transportation Command commanding general, who visited Fort Eustis and presented crewmembers with Joint Service Achievement Medals for their historic efforts.

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Second Lieutenant Bill Battles is the executive officer of the 331st Transportation Company. He holds a bachelor's degree in finance and accounting from Oklahoma State University and is a graduate of the Transportation Basic Officer Leader Course.

Second Lieutenant Bill Battles administers the oath of enlistment to Staff Sergeant Joe Burke and Sergeant Brandi Manuel at the Ceremonial South Pole.



Commanding a Modular Battalion

By Lieutenant Colonel Douglas A. LeVien, Major Robert B. Rochon, and Command Sergeant Major Herbert M. Hill

Units from the 593d Special Troops Battalion (STB), 593d Sustainment Brigade, located at Joint Base Lewis-McChord (JBLM), Washington, have been deployed for more than 1,500 consecutive days in support of Operation Iraqi Freedom, Operation Enduring Freedom, and Operation New Dawn.

The 593d STB consists of the 112th Military Mail Terminal, the 9th Financial Management Company (FMCO), the 22d Human Resources Company (HRC), the 140th Movement Control Team (MCT), the 265th MCT, and the 593d Headquarters and Headquarters Company (HHC). These 6 units, totaling 750 Soldiers, are capable of deploying as 22 separate detachments ranging in size from a 5-Soldier personnel accountability team to a 276-Soldier sustainment brigade headquarters. These 22 detachments include postal plans and operations units, postal platoons, casualty liaison teams from the 22d HRC, and finance detachments from the 9th FMCO.

Since June 2010, the battalion has deployed 263 Soldiers from 15 separate detachments and redeployed 245 Soldiers from 13 separate detachments. The battalion currently has 5 units (just less than 200 Soldiers) deployed, and it is projected to deploy 4 additional units of less than 100 Soldiers during the next 6 months. At one time, the 22d HRC had Soldiers deployed to Afghanistan, Iraq, Kuwait, and Qatar. Because commanding HRCs and FMCOs is so challenging, they are commanded by majors instead of captains.

The STB's deployments and exercises have spanned simultaneously across three continents in the countries of Iraq, Kuwait, Afghanistan, Qatar, Australia, and Japan. Multiple deployments add difficulty and stress to a battalion's mission command, training requirements, families, family readiness groups (FRGs), and career progression. In addition to these deployments, the 593d STB still has the garrison support requirements of finance, postal service, and Soldier in-processing and out-processing in support of more than 38,000 Soldiers and family members at JBLM, the Army's third largest installation.

Short-Notice Deployment Preparedness

In addition to regular deployments and garrison support requirements, the 593d STB supports other short-notice deployable missions. The 22d HRC is responsible for supporting the global response force mission with a 21-Soldier postal platoon. The STB has mission command responsibilities for the 593d Sustainment Brigade's deployable sustainment task force, which supports disaster

relief efforts throughout North America. The 593d STB recently assumed the Ranger ready force mission supporting the 2d Ranger Battalion, 75th Ranger Regiment.

These two missions are no-notice, "wheels up" deployments that occur within 18 to 96 hours of notification. They require key leaders to follow the military decision-making process and conduct emergency deployment readiness exercises and rock drills to ensure the readiness and proficiency of the unit and its ability to conduct the missions.

Post Office

The 593d STB established a military-run post office on 1 December 2011. This is one of only two all-military-run post offices in the Forces Command. The purpose of this post office is not only to provide postal support to Soldiers and family members on a growing installation but also to train Soldiers on postal operations. This training enhances the skills of the human resources specialist Soldiers within the STB and prepares them for future deployments.

Training

In order to support all the requirements both in garrison and while deployed, the 593d STB has an aggressive and deliberate training schedule. The battalion S-3 continually schedules human resources technical training at the Silver Scimitar exercise at Fort Devens, Massachusetts, or the Diamond Saber exercise at Fort McCoy, Wisconsin, for finance Soldiers.

The S-3 office schedules and oversees tactical training and weapons qualification at JBLM. It also schedules and oversees convoy live-fire exercises, mine-resistant ambush-protected vehicle driver and egress training, training for drivers using night-vision devices, 9-line medevac training, and improvised explosive device recognition training at the Yakima Training Center (YTC) in Yakima, Washington.

The battalion conducts predeployment training at YTC quarterly. The greatest advantage to training at YTC is that it provides commanders with an opportunity to conduct tactical training without the day-to-day distractions associated with garrison operations. These training events receive full participation from all units and result in well-trained and confident Soldiers who are prepared to deploy for any contingency operation.

Using the eight-step training model and lessons learned from deployments to develop well-resourced and realistic home-station training has led to two Soldiers being rec-



A 593d Special Troops Battalion Soldier is greeted by family members at a redeployment ceremony.

ognized as distinguished honor graduates at the Henry H. Lind Noncommissioned Officer Academy Warrior Leader Course.

Manning

The current 593d STB modified table of organization and equipment (MTOE) authorizes only one major as the battalion executive officer and one captain as the training officer-in-charge in the S-3. However, the battalion added an additional major to the S-3 shop to increase the shop's experience level, provide oversight of all training and missions, and meet the additional mission requirements resulting from the 57th Transportation Battalion's inactivation. The additional major has proven invaluable to the organization. The 593d STB recommends this as a permanent change to the MTOE; many other battalions throughout the Army have also added a major to their S-3 shops.

The 593d STB added an S-6 to support all tactical communications and typical battalion communication issues that quickly overwhelm the HHC communications shop. The battalion also added a battalion motor technician to enhance its ability to support the additional missions it adopted from the 57th Transportation Battalion. Lastly, to support its operating tempo, the battalion added a human resources officer and a financial manager to the battalion S-3 shop.

These additional officers allow the battalion to plan more realistic training that includes not only tactical training but also MOS-specific technical training. Such training

events provide the best of both worlds by including tactical and technical training in the same event. To support these training events, the STB added 4 platoon leaders and platoon sergeants to the 276-person HHC. These leaders are authorized on the brigade staff but conduct platoon leader and platoon sergeant duties on a full-time basis.

Lines of Communication

The transformation to a modular Army led these teams and detachments to deploy in a constant rotation. In nearly 4 years, the STB as a whole battalion has not been located in the same place, or even on the same continent, at any given time. The detachments' leaders have likely worked, either deployed or in garrison, for many different commands. Because of this lack of continuity, battalion leaders must work diligently with deployed leaders, FRGs, and rear detachment commanders.

One of the keys to success is the relationship the battalion staff has with the rear detachments and the forward deployed units. The battalion staff and the rear detachments schedule periodic teleconferences with all deployed units. These teleconferences allow the command team to identify issues early, before they grow into significant problems that will affect unit readiness.

Some of the topics discussed during teleconferences are property book issues, rest and relaxation issues, emergency leave, and future assignments of unit leaders and Soldiers. Many times the battalion staff has invited FRG leaders to discuss FRG topics.

Family Readiness

The FRGs within the 593d STB, for both deployed and garrison units, are very active. The FRGs have planned many events, including a Halloween costume fun run, a harvest festival, a barracks Super Bowl party, an Easter egg hunt, intramural sporting event tailgates, overnight spouse team-building events, and summer picnics on American Lake.

The FRGs not only plan social events but also focus on training family members and providing them with resources and life skills that will increase the readiness of the families. The STB incorporated its Better Opportunities for Single Soldiers representatives into FRG functions to ensure all Soldiers participate in social events. The aim for these events is to build cohesion, open lines of communication with the FRGs and unit leaders, develop relationships that are long lasting, and simply have fun, all of which directly support the battalion commander's leadership philosophy.

The brigade's family readiness support adviser works diligently with FRG leaders and unit commanders to create an enjoyable atmosphere. The STB's FRG functions are supported by partnerships with local organizations. Some of these relationships have been built through the JBLM Community Connector Program, which encourages city officials and business leaders to embrace Soldiers and their families, especially during deployments.

Partnering organizations, such as the Captain Meriwether Lewis Chapter of the Association of the United States Army, the Puget Sound United Service Organization, and the West Olympia Rotary Club, add resources to the events to make them possible. These groups have supported Soldiers by coordinating care packages for deployed units, donating Thanksgiving turkeys, and playing the bagpipes during welcome home celebrations.

Morale, Welfare, and Recreation

The 593d STB is not all work and no play. The unit participates in all JBLM intramural sporting events, including flag football, basketball, bowling, swimming, golf, and volleyball. The 593d STB's HHC won the JBLM Commander's Cup for the Tacoma Narrows 7.2-Mile Run. These sporting events build team cohesion, improve fitness, and keep Soldiers occupied with productive activities during off-duty hours. Winning competitions builds the Soldiers' morale and reinforces their decision to reenlist. In fact, after winning the JBLM Commander's Cup, the 593d STB met its reenlistment mission in just 2 months, the fastest within the brigade and among the fastest on JBLM.

Redeployments

It is always great to see Soldiers return home. All 593d STB units have returned home without a loss of life or injury; however, several Soldiers have received the Combat Action Badge from these deployments. Units

also return home with some lingering issues that require time and resources to resolve. The battalion is very active in identifying high-risk Soldiers and has put systems in place to assist the Soldiers and their families and ensure the commanders have the proper tools to assist their Soldiers as well.

The 593d STB makes good use of its military family life consultant (MFLC) and the battalion chaplain. The battalion conducts a welcome home ceremony for every unit, regardless of size, at any time, day or night—even on Christmas Day. Before the unit conducts these redeployment ceremonies, the MFLC and battalion chaplain give reintegration briefings to the Soldiers and their family members. The intent is to let them know that the battalion cares and that help is readily available if needed.

The 593d STB has had Soldiers deployed for nearly 4 consecutive years, maintained a garrison support mission, and participated in joint and coalition exercises. The battalion staff and unit commanders work very hard to accomplish their missions and are committed to training their Soldiers technically and tactically so that they have a successful deployment. The battalion's leaders try to identify issues before they cause frustration, maintain a realistic and deliberate training plan, and keep lines of communication open with the FRGs, rear detachments, and deployed commanders.

The key to keeping up with training and maintaining this operating tempo is to successfully use all resources available within the battalion, brigade staffs, and the installation. The result is not only having a successful mission but, more importantly, having all Soldiers return home safely with an appreciation of their accomplishments and the sacrifices made by their family members.

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Command Sergeant Major Herbert M. Hill was the command sergeant major of the 593d STB from July 2010 to July 2012. He has a bachelor's degree from Excelsior College.

The Role of the Financial Management Company at End of Mission

When the U.S. military mission in Iraq concluded, the 9th Financial Management Company shifted its focus to auditing, reconciling, and closing the financial books in preparation for the new phase of operations.

By Major Cody W. Koerwitz

During Operation Iraqi Freedom, the 9th Financial Management Company (FMCO) carried out its traditional missions: providing disbursement, commercial vendor service (CVS) support, military pay, and e-commerce support. The unit provided mission command to eight financial management detachments spread throughout Iraq.

After nearly 9 years of combat operations in Iraq, the colors of U.S. Forces–Iraq (USF–I) were cased on 15 December 2011, marking the end of the U.S. military mission in Iraq. At that time, the 9th FMCO assumed the mission to close down a disbursing station symbol number (DSSN) that had been operational since the beginning of combat operations in Iraq. A DSSN is a disbursing account authorized by and tied directly to the U.S. Treasury.

The closure of a disbursing account is not a typical mission of the FMCO. The DSSN assigned to the 9th FMCO, DSSN 5579, was the last operational disbursing account in Iraq. It had previously been used to absorb other accounts that were closed at the start of the drawdown in Iraq. DSSN 5579 was different because no other account would ever absorb it. The 9th FMCO was responsible for the complete audit and reconciliation of the account and for ensuring that every last penny was balanced and returned to the Defense Finance and Accounting Service (DFAS) and the U.S. Treasury.

Mission Analysis

Closing DSSN 5579 started with conducting a mission analysis and identifying external agencies to provide assistance, specifically from the members of the fiscal triad: resource management (U.S. Army Central [ARCENT]/USF–I G–8), financial operations (18th Financial Management Center [FMC]), and contracting.

Internally, the company conducted several mission

analysis sessions to determine the scope of the work, identify specified and implied tasks by section, and develop a tentative timeline from which to operate. Developing a timeline was important because time was an identified constraint.

Initially, the company was slated to redeploy along with the other USF–I forces departing theater as the mission closed at the end of December 2011. Understanding that the closure of the disbursing account would take time, the FMCO enlisted the assistance of the theater FMC and the ARCENT G–8 to be reassigned from USF–I to ARCENT so that it could stay an additional 90 days to close out operations.

The major tasks necessary to close down the account were divided into four categories based on the mission analysis. The four categories centered on the four main technical functions of the company: disbursing, CVS, military pay, and e-commerce.

For disbursing, the FMCO had to—

- ❑ Clear and balance the unmatched transactions report—essentially, ensuring that all debits and credits were balanced.
- ❑ Transfer local bank accounts remaining open in Iraq to the FMC.
- ❑ Close out all financial management detachment disbursing operations.
- ❑ Clear all remaining paying agents.
- ❑ Return all physical currency to the U.S. Treasury or the local bank accounts in Iraq.
- ❑ Turn in all remaining U.S. Treasury checks.
- ❑ Mail off final disbursement records to DFAS and the Federal records center.

For CVS, the FMCO had to—

- ❑ Coordinate with G–8 to ensure all open lines of accounting involving contracts owned by the 9th FMCO were closed.

- ❑ Close out all open files in the Commercial Accounts Payable System database.
- ❑ Prepare series 1099 tax statements for all payments issued to U.S. corporations.
- ❑ Complete the certification of funds for all contracts transferred to DFAS for payment.
- ❑ Ensure all open contracts were modified to reflect DFAS Rome as the paying office.
- ❑ Mail all contract files to the Federal records center. For military pay, the FMCO had to—
- ❑ Ensure the Merged Accountability Fund Report was in balance and all casual pays and advances in pays were collected.
- ❑ Ensure all Case Management System cases were closed. (The Case Management System is used to transfer military pay cases to DFAS for intervention.)
- ❑ Ensure all military pay transactions had cleared.
- ❑ Mail records to the Federal records center. For e-commerce, the FMCO had to—
- ❑ Mail all EagleCash cards back to the Federal Reserve Bank of Boston.
- ❑ Retrograde all EagleCash card equipment to either Kuwait or the Federal Reserve Bank of Boston.

Developing Benchmarks and Metrics

Having identified the major specified and implied tasks required to close the account, the FMCO then focused on establishing timelines and benchmarks for evaluating progress. Developing benchmarks and metrics to measure performance was a useful tool for managing the closure mission. However, developing metrics proved to be a continuous challenge because no doctrine exists to measure the performance of closure operations.

Through trial and error and through discovery learning, the metrics used to measure performance continuously evolved. Few of the metrics used at mission completion resembled the metrics used at the start. However, at all times they proved useful and provided a tool that the company used to brief the sustainment and financial management leaders.

The Fiscal Triad and National Providers

The fiscal triad comprises resource management, financial management operations, and contracting, which share a common focus of supporting the battlefield commander. All three members of the triad have common functionality and rely on each other to complete their missions.

Second Lieutenant Ted Wynne, a financial management officer, and Sergeant First Class Carlos Andrews, a financial management technician, review finance reports during Exercise Diamond Saber 2012. (Photo by SSG Daniel Balda)



Contracting requires the resource manager to provide funding for a contract and finance operations to pay for the contract. Resource management requires feedback from contracting and finance to balance its ledger and ensure that obligations have been disbursed. Finance requires feedback from contracting when contracts have been closed and from resource management to ensure no further obligations remain open.

THE ABILITY TO HAVE
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AND CONTRACTING PROVED
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SCHEDULE.

At the conclusion of Operation New Dawn, the fiscal triad supporting USF-I began to focus on mission closure. The triad created an atmosphere in which each responsible section could make use of the other members' resources to enhance its own efforts and close its books on USF-I.

Held at Camp Arifjan, Kuwait, the first fiscal triad synchronization meeting was used to provide guidance and to develop goals, benchmarks, and metrics to measure progression and performance. The meeting was hosted by the ARCENT G-8, Brigadier General Thomas Horlander. Attendees included members of the G-8 financial operations staff, the 18th FMC, the Senior Contracting Official-Iraq, and the 9th FMCO.

At each weekly session, members of the triad could refine their goals and metrics and share information and points of contact. The meetings eventually evolved to include representatives from DFAS Rome and the Army Contracting Command at Rock Island Arsenal, Illinois.

The fiscal triad synchronization meeting proved to be the 9th FMCO's most useful tool for closing the disbursing account. The ability to have unabated access to resource management and contracting proved invaluable and allowed the company to close its account ahead of schedule.

National providers, such as DFAS, the U.S. Treasury, and the U.S. Army Financial Management Command, also were stakeholders in the disbursing account. Their assistance through weekly teleconferences was critical in ensuring that issues and discrepancies were resolved and that best practices were noted.

The Scope of Work and Accomplishments

The 9th FMCO successfully closed down DSSN

5579 inside of the 90-day timeline. In closing down the account, the FMCO executed innovative transactions and learned some valuable lessons that will be of assistance in supporting the eventual Afghanistan mission reduction. The following is a summary of the scope of work and accomplishments.

Disbursing. The company retrograded more than \$49 million off the battlefield to the FMC. The money was later returned to the U.S. Treasury. It also returned more than \$10 million in Iraqi dinars back to the Bank of Baghdad. The company then executed the first-ever electronic funds transfer of Iraqi dinars using the SWIFT [Society for Worldwide Interbank Financial Telecommunication] system and returned the money to the U.S. Treasury. The company also closed down 14 disbursing sites in a 6-week period.

CVS. The 9th FMCO reconciled and audited more than 15,000 contracting files, cleared more than 2,000 lines out of the database used to manage contracts, and reconciled more than 800 unliquidated obligations. The company also completed 23 series 1099 tax forms for payments issued to U.S. corporations.

Military pay and e-commerce. Little action was required out of the military pay section at mission closure because the section led the theater in sustained performance. The section ensured the military pay accounts of the company were balanced every month. The e-commerce section assisted with the retrograde of more than 60 pieces of equipment, including kiosks and laptops.

At end of mission, the 9th FMCO successfully closed its DSSN and safely redeployed to Joint Base Lewis-McChord. The success of the company can be attributed to two factors. First, having quality Soldiers who are professional and technically competent made all the difference in the world.

Second, the role of the fiscal triad and support from the FMC were absolutely critical to ensuring the company had open access to resources and assistance when needed. The role of the fiscal triad was validated by the synergy developed among its three members. Closing down a DSSN is not only a FMCO responsibility; it is also the responsibility of the other members of the triad since all actions among the three entities are directly linked.

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The Cost of Cash

By Captain Henian J. Newsome

Bringing U.S. cash—bills and coins—into Afghanistan can be extremely expensive. The most noticeable cost is physically transporting cash. Cash is typically transported by a military aircraft, diverting it from its intended mission of transporting troops and supplies. The Government must pay for fuel to fly the aircraft and the labor to secure the money and take it from a Federal reserve bank to Germany, then to Kuwait, and finally into Afghanistan. Then the funds still have to make it to the front lines.

During its most recent deployment to Jalalabad, Afghanistan, C Detachment, 9th Financial Management Company (C/9th FMCO), was responsible for reducing the demand for bringing cash into the country by limiting the amount of cash used in the Nuristan, Nangarhar, Kunar, and Laghman provinces of Afghanistan.

The EagleCash Card

The C/9th FMCO's first step was to limit cash transactions by instead using the EagleCash card (ECC), also referred to as the stored-value card, to conduct both personal and official business. The ECC is a cash management tool designed to support U.S. military personnel deployed in combat zones.

The card's interface with automated kiosks and point-of-sale devices allows cardholders to access money. The kiosks are similar to automated teller machines, but they place the amount of money requested onto the ECC instead of dispensing cash to the servicemember. U.S. dollars that are spent electronically by servicemembers are converted into the local currency when the vendors bring their devices into the local finance office to be cashed out.

Electronic Payments

The C/9th FMCO's commercial vendor services (CVS) noncommissioned officer-in-charge was selected to convert all of the CVS contracts that were being paid in cash into electronic payments for more than 10 finance offices in Afghanistan.

To ensure that no payments were incorrect or delayed, all of the finance offices had to be kept informed and the contracting offices that were tied to vendor payment offices had to be included in the process. Incorporating the contracting offices with the finance standard operating procedures made the transition seamless and increased efficiency.

Local Resistance

Using electronic transactions was difficult for many locals. Corruption has led to a lack of trust in banking systems within the country. Many local residents would rather put money into a shoebox than into a financial institution. They take whatever wages they have earned and secure the funds the best way that they know how—without a bank. Understandably, introducing a new concept such as electronic payments was not well received.

Access to local banks was another barrier that influenced the resistance to the new e-commerce transactions. Many of the locals working on U.S. camps and bases were located in very remote locations. A lack of transportation to the more developed areas, where banking institutions could be found, made the transition nearly impossible, even for those who were interested in the change.

The idea of loaning money to a financial institution in order to gain interest on funds borrowed is not widely understood in Afghanistan, nor is the value of currency. Far too often, the local Afghans would rather have the value of their currency decrease in order to receive more physical cash during an exchange from U.S. dollars to afghani.

For instance, many Afghans preferred an exchange rate of 100 afghani to 1 U.S. dollar over an exchange rate of 10 afghani to 1 U.S. dollar. With the former, they would receive more physical cash even though that meant that the Afghan economy was worsening.

When payments are made accurately and quickly, Soldiers can continue their missions without worrying that their workers will not show up because they have not been paid. The C/9th FMCO began with a cash holding authority of \$10 million. At the end of the deployment, the amount was lowered to \$4 million and the disbursing agent held a little more than \$2 million on hand. The C/9th FMCO ensured that every outlet that would normally use cash was able to use the ECC or had a bank account for electronic funds transfers and paying agent services.

Captain Henian J. Newsome is assigned to the 593d Special Troops Battalion at Joint Base Lewis-McChord, Washington. He has a bachelor's degree in political science from Morgan State University and is a graduate of the Finance Officer Basic Course.

Finance Detachment Operations During Operation New Dawn

A financial management detachment faced unusual challenges as they provided services to Soldiers in Iraq and prepared for troop withdrawal from the country.

By Captain Jeremy R. Eckel

On 18 November 2011, 21 finance Soldiers carrying tuff boxes filled with money boarded a C-130 Hercules airplane. The Soldiers' unit, A Detachment, 9th Financial Management Company (A/9th FMD), 593d Special Troops Battalion, 593d Sustainment Brigade, from Joint Base Lewis-McChord, Washington, was among the last financial management units in Iraq. The detachment successfully closed three fixed finance offices, disbursed Iraqi dinar, and turned in 10 years worth of accumulated equipment.

A/9th FMD provided finance support for 3 major forward operating bases (FOBs), 3 combat outposts, and more than 18,000 personnel while deployed to Iraq. The detachment occupied preestablished buildings on Al Asad Air Base, FOB Ramadi, and FOB Taji. Al Asad Air Base and FOB Taji contained vaults that each held up to \$4 million in currency. Because of geographical separation of the FOBs, the finance Soldiers were divided among the bases and key leaders were assigned responsibility for maintaining the two vaults containing currency.

Dinar Disbursement

One of A/9th FMD's major goals was to reduce U.S. currency and disburse Iraqi dinar. The use of U.S. dollars in Iraq can devalue the local Iraqi currency. Disbursing Iraqi dinar increases the legitimacy of the Iraqi Government and can have a positive impact on the local economy. Policies were implemented that limited the disbursement of U.S. currency, and finance Soldiers encouraged troops to make purchases using EagleCash cards (ECCs), prepaid debit cards connected to Soldiers' bank accounts.

A/9th FMD was responsible for disbursing currency to FOB foreign vendors. It issued point-of-sale devices to vendors so that they could accept ECCs as payment. The local vendors went to the finance office twice a week and received Iraqi dinar for the ECC transaction amount recorded on their point-of-sale devices. Detachment Soldiers also disbursed Iraqi dinar to U.S.

Soldiers during mobile support missions to smaller bases. A/9th FMD disbursed more than \$1.5 million worth of Iraqi currency in less than 7 months.

Equipment Turn-In

When it arrived in Iraq, A/9th FMD replaced another detachment and enjoyed the amenities of a mature deployed environment. The buildings, with an abundance of computer workstations and reliable Internet connectivity, were more than adequate for conducting deployed finance operations. Military units had occupied these buildings for up to 10 years, and redeploying Soldiers had generously left behind furniture, televisions, and other appliances. However, entire rooms also were filled with broken and unserviceable equipment ranging from machinegun mounts to 800-pound safes.

In October 2011, the detachment received orders to account for and turn in all equipment and to prepare for departure to Kuwait. The military established sites on each FOB for units to turn in equipment. In addition to executing finance support operations, A/9th FMD Soldiers inventoried, documented, and transported a significant amount of equipment to the turn-in sites on their FOBs. It was a grueling process that took careful planning and several weeks to complete.

Challenges Caused by the Drawdown

Several challenges were associated with the drawdown of military equipment, such as degraded communications and Internet connectivity. Military finance operations typically require Internet connectivity to process transactions and to maintain fiscal accountability. A/9th FMD was responsible for supporting an area of operations but did not have a higher headquarters located nearby, so the FMD commander needed to use secure emails and phone calls to communicate with his higher headquarters. FOBs across Iraq were reducing their communication capabilities, and each FOB had a different timeline for equipment turn in and base closure.

By November 2011, A/9th FMD Soldiers were operating with limited equipment and could not effectively communicate with their higher headquarters. To complete the mission, the Soldiers printed and prepared finance documents and recorded all transactions manually. The detachment relied on transportation and support from the bases where they were assigned. A/9th FMD Soldiers built relationships with their host FOB leaders and ensured that they were integrated into FOB closure planning.

Moving Soldiers, equipment, and currency during a period of mass exodus was difficult. The money was counted, documented, and locked into several tuff boxes. Certain tuff boxes were reserved for coins and weighed more than 200 pounds. To protect the money, Soldiers guarded the tuff boxes.

As each FOB closed out, the A/9th FMD elements attached to the FOB departed and headed for Kuwait. The movements from the closed FOBs to Kuwait proved challenging because FMD elements moved independently of each other. After arriving in Kuwait, all FMD elements consolidated under the detachment headquarters and pulled consolidated guard duty on the money. The 9th Finance Company's headquarters transported the detachment disbursing agents to another base in Kuwait to account for and turn in their funds.

During this time, tens of thousands of U.S. troops were funneling through Kuwait and waiting their turn to redeploy. Since it was a small unit, the detachment redeployed within a week of arriving in Kuwait and returned home on the night before Thanksgiving.

When a finance detachment deploys independently of its company headquarters, it can face many unique challenges. As a dispersed and small unit, A/9th FMD's success was contingent on receiving support from military units assigned within the area of operations. The detachment built relationships with those units and joined the drawdown planning process.

Captain Jeremy R. Eckel is assigned to the 593d Sustainment Brigade. He was the commander of A Detachment, 9th Financial Management Company, 593d Special Troops Battalion, 593d Sustainment Brigade, when he wrote this article. He holds a bachelor's degree in geology from the University of California, Los Angeles. He is a graduate of the Infantry Officer Basic Course, the Finance Officer Advanced Course, the Army Ranger School, the Special Operations Combat Diver Qualification Course, and the Army Airborne School.

Soldiers from A Detachment, 593d Special Troops Battalion, 10th Sustainment Brigade, maneuver an 850-pound safe into the finance office at Al Asad Airbase, Iraq. The safe was used to secure \$4 million in U.S. and Iraqi currency.



French Logistics Battalion Supports Coalition Special Forces

A French logistics battalion worked with special forces from several countries to remove insurgents from a building where they were hiding.

By Lieutenant Colonel Emmanuel Ruffat, French Army

On the night of 13 September 2011, a French logistics battalion conducted a very unusual operation in the center of Kabul, Afghanistan. That afternoon, insurgents had launched an attack on the International Security Assistance Force headquarters and the U.S. Embassy and had taken position in a building.

In response, the French logistics battalion commander received orders from the French National Contingent Command. The mission consisted of two main tasks:

- Provide armored protection to move British and Afghan special forces detachments as close as possible to the area of operations so that they could capture or neutralize the insurgents.
- Provide medical support and be prepared to evacuate any wounded soldiers to the French hospital at Kabul International Airport.

The logistics battalion knew the area well. However, night action was required, the enemy situation and local support to the enemy remained uncertain, and above all, the battalion had never worked with foreign special forces.

Time was short. It was important to have a tight liaison and to coordinate with allied units before issuing orders, so the International Joint Force/Special Operations Force cell appointed a French special forces officer to liaise with the British and Afghan special forces detachments.

The logistics battalion commander and the tactical operations center staff conducted a quick military decisionmaking process. The mission would rely mainly on the capabilities of a traffic and movement control platoon and a quick reaction medical support element that was mounted on an armored personnel carrier (APC).

At the hospital, an element was assigned to support this operation. Since it was not a simple transportation task, the S-3 chief led this operation on the ground and the battalion surgeon coordinated the medical support side. The special forces detachments assembled at

Warehouse Camp, and at 1900 hours, the mission was confirmed.

At 2000 hours, all parties gathered for an operation briefing. The detachment moved to the British area at Kabul airport. The operation was divided into three phases: reconnaissance, infiltration, and neutralization.

Reconnaissance. The first step was to reconnoiter the objective and liaise with special forces elements already deployed. At 2230 hours, a traffic and move-



ment control team moved the special forces mission command element to the vicinity of the insurgent's building. Under blackout conditions, using night-vision devices, the patrol approached the area secured by New Zealand special forces. The reconnaissance took about 45 minutes. While the reconnaissance was conducted, the logistics and special forces detachments waited on standby at the airport to start the next phase.

Infiltration. Just after midnight, the special forces detachment mounted the French APCs. After adjusting its plans based on the reconnaissance report, the traffic and movement control platoon and the medical support element started moving to the objective with great discretion. After the special forces troops disembarked, they secured the corridor heading to the building where the insurgents were entrenched. At 0200 hours on 14 September, the logistics battalion repositioned itself south of the building on Highway 7. The medical support team set up 50 yards away from the building to treat and evacuate casualties.

Neutralization. The third phase included neutralizing the resistance, covering the operation, and providing medical support. At 0230 hours, the special forces

detachments launched synchronized assaults. Some elements of the logistics battalion were engaged by harassment fire while covering the operation. This resulted in several casualties among the British and Afghan units.

From 0400 hours to 0600 hours, medical evacuations were conducted to the French medical hospital at the Kabul airport. The soldiers dismounted the APCs, and the traffic and movement control platoon secured the helicopter landing zone. At the same time, the medical support team picked up wounded soldiers under fire at the building exit.

At 0900 hours, the insurgents were neutralized. After quickly reassembling, the logistics battalion returned the British and Afghan special forces troops to the airport and then headed to Warehouse Camp. With its mission complete, the French logistics battalion returned to its core mission, supporting the French brigade in Regional Command East, in the Kapisa Valley.

Lieutenant Colonel Emmanuel Ruffat, French Army, is the S-3 chief for French Logistics Battalion Osterode.



A French Armored traffic and control platoon prepares for a combat patrol to support movement of British and Afghan special forces.

Special Operations Forces Logisticians: Bridging the Gap

The 528th Sustainment Brigade trained logisticians from around the services to use Army logistics information systems required to supply special operations forces in Afghanistan.

By Chief Warrant Officer 3 Alex M. Ocasio

Today's Department of Defense (DOD) operations are more joint than ever before. This structure is most evident in the U.S. Special Operations Command which relies on the joint services to maximize DOD's special operations capability. Despite operating jointly on the ground, gaps still exist between service-specific systems. One example is found in Afghanistan where Army, Navy, and Marine Corps special operations forces operate predominately in an Army ground environment.

In Afghanistan, Army logistics information systems (LISs) are the primary automation tools used for resupplying forces and ensuring that their equipment remains operationally ready at all times. This requires Marine Corps and Navy logistics personnel to use unfamiliar LISs yet provide an acceptable level of logistics support.

The Cross-Service Challenge

In this Army-centric logistics environment, SOF logisticians have to bridge the gap between service-specific logistics systems. Without Army logistics support personnel to support SOF units, our sister services may not be as effective as they could be in accomplishing mission requirements.

Our sister services' role in the Combined Joint Special Operations Task Force–Afghanistan (CJSOTF–A) is important. In the CJSOTF–A, they operate in a special operations task force (SOTF) capacity, where they are responsible for supporting the war efforts in their command's area of responsibility. Each command is responsible not only for coordinating its tactical efforts but also for supporting logistics sustainment of its assigned forces.

The fact that the Navy's LISs are completely different from the Army's LISs has been a challenge for Navy and Marine Corps logisticians in SOTFs. In response, the 528th Sustainment Brigade, Special Operations (Airborne), developed a new training program

for Marine Corps and Navy personnel to help better integrate the services' logistics organizations into the Army logistics environment in Afghanistan.

The Commanders' Intent

In Afghanistan's vast logistics arena, the commanders decided to focus on training tasks that provide the most value to mission support and that generate the largest margin of failures when personnel are not properly trained. The training was intended to address the lack of general technical knowledge of the systems required for interacting with supported supply support activities (SSAs).

The 528th Sustainment Brigade commander and the Naval Special Warfare (NSW) 4 commander worked together to develop the best way ahead to prepare NSW 4 personnel for their upcoming deployment. This collaboration resulted in the development of a two-phased program that provided predeployment and in-theater assistance support.

Both the predeployment and in-theater assistance training provided SOF joint-force logisticians with the experience and assistance they needed to understand Army LISs, supply functions, policies, and procedures. The training addressed LIS functional areas, including the Property Book Unit Supply Enhanced (PBUSE) and the Standard Army Maintenance System–Enhanced (SAMS–E). SOF logisticians must master these functional areas in order to achieve the highest level of technical proficiency, maintain a fully mission capable equipment status, and sustain the SOTFs in Afghanistan.

Phase I: Predeployment Training

The predeployment training consisted of three segments, including an LIS training course, a logistics support workshop, and practical training with logistics personnel.

LIS training course. The first segment of Phase I

was a 40-hour LIS training course supported by the Sustainment Automation Support Management Office (SASMO) of the Army Special Operations Command (USASOC) G-4. The course provided training on SAMS-E and both levels of PBUSE (supply room and property book office [PBO]). These systems are used to create, submit, and track requisitions in support of organizational supply and equipment requirements. Supply personnel also use them to manage their maintenance programs and accountability requirements for the organization's property.

Logistics support workshop. The second segment of Phase I was a half-day workshop supported by senior logisticians from the 528th Sustainment Brigade. The workshop included logistics training research enablers, including the Logistics Information Warehouse, the Army Integrated Logistics Analysis Program, and the Radio Frequency In-Transit Visibility Portal. Training also covered Department of the Army forms and publications, interactions with the SSA, and reconciliation processes and procedures between SSAs and their supported units. The workshop culminated in an open forum on Army logistics systems, procedures, and functions.

Practical training. Phase I culminated in a 2-day practical training event to familiarize trainees with the daily operational requirements of the systems.

Based on the type of LIS and functional area training that trainees received during the first segment, they were aligned with the motor pool, the supply room, or the PBO. A trainee who received SAMS-E training was aligned with maintenance personnel. One who received PBUSE (supply room) training was aligned with supply room personnel. And, one who received PBUSE (PBO) training was aligned with PBO personnel. This training provided hands-on experience with LIS and the focused functional area.

Phase II: In-Theater Support

Phase II, the in-theater support program, assists, integrates, and completes the predeployment training program. The intent of this phase is to ensure that personnel arriving in theater start their deployments with the data and settings needed to do their jobs.

The in-theater support program provides a theater-entry support team to guide the SOF joint-force logisticians in using Army LIS processes and procedures. This support team is made up of 528th Sustainment Brigade personnel who are specialists in the three LISs and functional areas that the SOF logisticians had trained on during the predeployment phase.

During October 2012, a team of three personnel from the 528th Sustainment Brigade successfully conducted the first iteration of phase II. This training took 8 to 10 days for each sister service to complete and was provided to NSW4 and Marine Corps Forces Spe-



Special operations forces train on Army logistics information systems during predeployment training.

cial Operations Command (MARSOC) 82-2 personnel at six different locations throughout Afghanistan (three sites for NSW4 and three sites for MARSOC 82-2). During this training, the sustainment brigade personnel provided assistance on LIS processes and procedures.

The joint forces are very receptive and are looking forward to the additional support the 528th Sustainment Brigade will provide while it is deployed.

The 528th Sustainment Brigade has sponsored eight iterations of predeployment training and one deployment in support of phase II since the inception of the program in December 2011. The program is responsible for educating and assisting a combined total of 42 personnel between MARSOC 82-2 and NSW 4. By providing better trained logisticians who are able to transition with less difficulty to an Army-based logistics structure, this effort is bridging the gap for our SOF forces projected to support the CJSOTF-A mission.

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BCS3 at the Joint Readiness Training Center

Despite perceptions that BCS3 can be more trouble than it is worth, two units demonstrated during their Joint Readiness Training Center rotations that it can be an effective tool.

By Major Terry Newman

To ensure that sustainment is synchronized with all of the warfighting functions and tied to the commander's intent, it is important for sustainers to have a common operational picture (COP) and to be able to provide predictive sustainment support. The Battle Command Sustainment Support System (BCS3) was developed to pull information from multiple sources and generate near-real-time reports that provide the COP that sustainers need.

Despite perceptions that BCS3 does not work, units that have recently trained at the Joint Readiness Training Center (JRTC) at Fort Polk, Louisiana, have demonstrated increased BCS3 proficiency. This BCS3 proficiency has led to improvements in sustainment reporting and the COP. Three factors that contribute to the rotational units' success with BCS3 at JRTC are operator training, the use of BCS3 in garrison, and expanded use of the system. If units continue to improve in these three areas, BCS3 will eventually be employed to its fullest potential and leaders will be better informed when making decisions involving sustainment operations.

Leader Emphasis on Training

During its JRTC rotation, the 1st Brigade Combat Team, 82d Airborne Division (1/82 BCT), demonstrated a high level of proficiency with BCS3, which allowed it to excel in sustainment management and reporting. The 1/82 BCT sustainers obtained their proficiency with the BCS3 Logistics Reporting Tool (LRT) while they prepared for their JRTC rotation.

In the months preceding their pre-JRTC rotation field training exercises at Fort Bragg, North Carolina, 35 Soldiers were trained to use BCS3. This training ensured that battalion and brigade S-4s and the 307th Brigade Support Battalion (BSB) support operations section had Soldiers who could effectively use the system. They also conducted rehearsals before each field training exercise to ensure that everyone understood the procedures and the reporting requirements for the exercise.

In the months preceding its JRTC rotation, the 4th BCT, 4th Infantry Division (4/4 BCT), implemented a

comprehensive training program that allowed units to use BCS3 during numerous training exercises before their JRTC rotation. The 704th BSB's support operations section conducted training to ensure that everyone in the section could, at a minimum, use the BCS3 LRT to track commodity stockage levels.

Both the 1/82 BCT and the 4/4 BCT took full advantage of the refresher training that JRTC makes available to units when they arrive at Fort Polk. Field support representatives are assigned to Fort Polk to tailor training to meet the needs of each unit. The contrast between units that are trained on BCS3 and those that are not is evident during the first few days of a JRTC rotation, when units begin reporting their logistics statuses and sustainment planners begin forecasting requirements.

BCS3 in Garrison

One of the challenges units face with BCS3 is that operators lose proficiency with the system if they do not use it for an extended period between training exercises. To mitigate this problem, 1/82 BCT began using BCS3 in garrison. The 307th BSB's sustainment automation support management office technician ensured that all of the BCS3 systems in the BCT were operational and then built a tracked-item list on BCS3 with specific items of equipment on which units would provide status reports. Operators were required to log in to the system daily and update the status of the designated equipment. Although units do not generally use BCS3 to track commodities and equipment while in garrison, using BCS3 to generate maintenance status reports for vehicles and equipment ensured that the 1/82 BCT's BCS3 operators remained proficient.

Expanded Use of BCS3

Another key to success for 1/82 BCT and 4/4 BCT was their willingness to expand the use of BCS3 beyond that of the LRT and take advantage of the other capabilities the system has to offer. Both units had Soldiers in their support operations shops who could build graphic overlays that showed the supply status at different locations or



Captain Sam Clarke, left, and First Lieutenant Gordon Fenlason, officers in the 307th Brigade Support Battalion support operations shop, retrieve reports from BCS3 before a sustainment targeting meeting during a JRTC rotation.

the route status for planned tactical convoy operations.

These BCTs also used the “Transverse” application on BCS3 to allow sustainment planners to use text messages to communicate with battalion S-4s and forward support company commanders. This gave sustainment planners the ability to receive short real-time notifications, such as when convoys arrived, when commodities were issued or received, and when a unit had updated its logistics status on BCS3.

Another practice that both 4/4 BCT and 1/82 BCT expanded on was tailoring the tracked-item list to track commodities, such as water and bulk fuel, by location rather than unit. This technique was practical when two or more units were operating at the same forward operating base and supply points were combined. For future operations, 1/82 BCT plans to include personnel and class VIII (medical supplies) reporting on BCS3 to improve the COP for the S-1 and the surgeon in the BCT sustainment cell.

Some units have stated that not enough BCS3 systems are allocated to each BCT. Typically, the brigade has 10 systems: 1 in each of the 4 forward support companies, 2 in the BCT headquarters, and 4 in the BSB headquarters. Therefore, using the LRT for reporting is subject to human error. When a battalion has only one BCS3 computer, a forward support company Soldier has to receive reports from each of the companies in the battalion and manually enter the data into the LRT.

To remedy this, 1/82 BCT had its field support representative install the LRT program on a computer in each of the company command posts so that each company could update its own status. This eliminated the requirement for battalion S-4s to sort through emails and spreadsheets and provided real-time updates to the sustainment planners and leaders.

Sustainers are constantly struggling to find better ways to provide predictive, rather than reactive, support. BCS3 has the capability to provide the COP and track contents of tactical convoys. It also can greatly improve the sustainment targeting meeting.

To ensure that sustainers can get commodities from supply points to the user in the most efficient way possible, sustainers must continue to improve and expand their use of BCS3. Recent training rotations at JRTC indicate that leaders are continuing to endorse the use of BCS3 and are pushing to ensure that their units are proficient. The 1/82 BCT and 4/4 BCT have shown that having multiple trained operators who use BCS3 in garrison to remain proficient and who continue to expand their use of BCS3 are more successful during their training at JRTC.

For assistance in improving your unit’s use of BCS3 before your JRTC rotation contact the Tapestry Solutions BCS3 field support representative, Jack Castilaw, at jcastilaw@tapestrysolutions.com.

Major Terry Newman is the senior brigade support battalion observer-coach-trainer for Task Force Sustainment, Joint Readiness Training Center, at Fort Polk, Louisiana. He holds a B.S. degree in biology from East Carolina University and is pursuing an M.S. degree in administration from Central Michigan University. He is a graduate of the Quartermaster Officer Basic Course, the Combined Logistics Captains Career Course, the Army Combined Arms and Services Staff School, and Intermediate Level Education at the Army Command and General Staff College.

Sustainment Automation Support Management Office Operations at JRTC

The sustainment automation support management office of the 1st Brigade Combat Team from Fort Campbell, Kentucky, ensured all logistics information systems operated properly during a JRTC rotation.

By Warrant Officer 1 Joshua D. Neely

The 1st Brigade Combat Team, 101st Airborne Division (Air Assault), at Fort Campbell, Kentucky, deployed to the Joint Readiness Training Center (JRTC) at Fort Polk, Louisiana, for a 30-day rotation in July 2012. The brigade's training mission was focused on improving unit readiness in a highly stressful environment.

During the rotation, the sustainment automation support management office (SASMO) successfully established the logistics information system network, which includes 8 very small aperture terminals (VSATs) for 5 forward operating bases (FOBs), 12 Combat Service Support Automated Information Systems Interfaces (CAISIs), 8 voice over interface protocol (VOIP) phones, 18 Standard Army Maintenance Systems–Enhanced (SAMS–Es), and 12 Medical Communications for Combat Casualty Care (MC4) systems.

Setting Up VSAT

The VSAT is a two-way satellite dish that provides Nonsecure Internet Protocol Router Network data to satellites in orbit. In turn, the VSAT communicates with the logistics information systems, providing network connectivity within the brigade.

Upon arrival at JRTC, the SASMO ensured that multiple VSATs were placed at each FOB location. This was done to enable immediate replacement of a VSAT if it quit working, minimizing the impact on operations.

Using the VSATs for CAISI communications allowed the SASMO to expand the network to multiple locations at each FOB, which provided network connectivity to the MC4 at each FOB's aid station. The motor pools ran the VOIP phones off of six VSATs and one CAISI, which provided the battalion maintenance sections a secondary means of communication.

In an effort to maintain status on all systems across



Sergeants Matthew Grey and William Hemingway, C Company, Headquarters and Headquarters Battalion, 101st Airborne Division, troubleshoot a problem with a very small aperture terminal. (Photo by SGT Grant Matthes)

the brigade's area of operations, the SASMO tested What's Up Gold software, which provided real-time information about the status of the network by sending pings to each device across the battlefield. This software proved to be beneficial because it allowed the SASMO to see when a VSAT, CAISI, VOIP phone, computer, or any other device lost connectivity and to address the issue instantly.

Setting Up MC4

The greatest challenge during the JRTC rotation was the setup of the MC4 computers. The first obstacle was the setup of the Defense Medical Logistics Standard Support (DMLSS) Customer Assistance Module (DCAM) program on the brigade medical supply office's (BMSO's) MC4. The SASMO worked with the medical logistics support operations office to coordinate information with the BMSO and the medical logistics branch of Fort Polk's Bayne-Jones Army Community Hospital.

During this process, the SASMO created an interface protocol for the hospital computer, which allowed data to pass through the firewall. Once the battalion aid stations had DCAM software configured on their computer systems, they were able to place supply requests up to the BMSO. Once the BMSO consolidated the supply requests, the order was placed with the hospital's medical logistics branch. This process was efficient and effective for medical operations because it expedited all supply requests up to BMSO.

The second challenge that MC4 posed was in configuring the Armed Forces Health Longitudinal Technology Application—Theater (AHLTA-T). The AHLTA-T is used by medical staff to digitally document any outpatient and inpatient care via an MC4 laptop. In order for AHLTA-T to function, the SASMO had to coordinate directly with the Theater Medical Data Store (TMDS) and the MC4 helpdesk.

TMDS is a web-based tool used by medical providers to view a servicemember's medical treatment data and history. Coordination with the MC4 helpdesk was critical because it required a warning order for a new site to be activated. The physician assistant was responsible for inputting primary contact information to finalize the creation of the account.

The MC4 helpdesk also required the SASMO to fill out a joining report over the Secret Internet Protocol Router Network (SIPRNET). The MC4 helpdesk provided the information for a SIPRNET website as well as the information that had to be sent. After the MC4 helpdesk received the information from the warning order and the joining report from the SIPRNET website, the helpdesk emailed a file containing directions for connecting AHLTA-T to TMDS. This enabled the aid stations to send patient information up to TMDS.

All aid station MC4s were setup in a server-client



Sergeants Darrell Coffman and William Hemingway, C Company, Headquarters and Headquarters Battalion, 101st Airborne Division, troubleshoot a problem with a VSAT. (Photo by SGT Grant Matthes)

configuration when multiple MC4 systems were present at that aid station. When an aid station had only one MC4, it was setup in a stand-alone configuration.

Communication is a critical element on and off the battlefield, especially when in a combat zone. During the 30-day rotation to JRTC, the SASMO ensured that all systems—specifically the network connection for the logistics information system computers, CSS, VSAT, CAISI, VOIP, and SAMS-E—were all operational and the brigade's mission set would not be interrupted. The synchronization of the AHLTA-T, TMDS, and MC4 allowed medical providers to maintain documented data on patients' medical histories within a combat zone, which provided information continuity for all medical providers within the brigade.

Warrant Officer 1 Joshua D. Neely is a Sustainment Automation Support Management Office technician for the 426th Brigade Support Battalion, 1st Brigade Combat Team, 101st Airborne Division (Air Assault) at Fort Campbell, Kentucky. He is pursuing a bachelor's degree in security management with a concentration in information security from the American Military University. He holds a certification in Security and Network+ and is a Microsoft Certified IT Professional and Certified Ethical Hacker.

Who Ordered the Anchor?

A retired Army supply officer explains how a single key stroke error by a supply clerk can cost the Army thousands of dollars and cause a lot of confusion.

By Colonel Neal H. Bralley, USA (Ret.)

In 1985, I was sitting at my desk in the materiel office of the 704th Maintenance Battalion, 4th Infantry Division, at Fort Carson, Colorado, eating my lunch, when the main class IX (repair parts) warehouse supply technician approached me and said, “Sir, you need to come look at this.”

“Chief, I’m eating my lunch; I’ll be out in a minute,” I replied.

“No sir, you need to come out now and see this,” he insisted. So, trying to be a more responsive young captain, I dutifully got up and followed the chief outside. We rounded the corner to find a commercial tractor-trailer parked by our receiving dock. A tractor-trailer being parked at this location was not particularly unusual. What was unusual was the one and only item it was hauling on its flatbed trailer: a rusty, 14,500-pound ship anchor.

Accepting the Shipment

“Chief, where did that anchor come from? What is it doing here? Who ordered it? We don’t have any water or ships around here.” I had lots of questions, and the chief, as excellent as he was, did not have all the answers—yet.

Thinking quickly, I turned to the driver and told him to standby; I was going to get him a transportation order to take that anchor back whence it came.

We had no such luck. He told us that he needed to be in Denver within 3 hours to pick up another load, and we needed to unload his truck now so that he could be on his way.

Removing a 14,500-pound anchor is not an easy task. Within our maintenance battalion we could lift some fairly heavy items, but our largest forklift truck could manage only 10,000 pounds. In order to receive the shipment, we had to have the driver back his trailer into one of our maintenance bays where, using a 10-ton overhead crane, we lifted the anchor off of the trailer and lowered it gently to the shop floor.

With both the anchor and the Department of Defense Form 1348-1, Single Line Item Release/Receipt Document, in hand, we had all the information we needed to determine who ordered the item, when it was ordered, its price, its shipping costs, and from exactly which Army supply depot it had come. Although I certainly cannot re-

call all of the minor details of the event or the item, I do clearly remember its cost—more than \$28,000 dollars.

Returning the Merchandise

We did not want the ordering unit to pick up the anchor and carry it home only to have to return it to our supply activity. Instead, we called and asked them to bring us a “D6Z” turn-in document, and we would turn in the anchor to the supply division of the Fort Carson Directorate of Logistics (DOL). Once there, DOL could hold the anchor in their supply yard and return it to the Army’s wholesale supply system. Once in the system, the anchor would again be available for issue to any Army unit.

The commander of the division support command (DISCOM), our higher headquarters, had a policy that all Soldiers were to inform him immediately of any unusual items of command interest by delivering a written 3-by-5-inch index card to him as soon as possible. I got the card written and into his hand immediately. The DISCOM commander read the note, understood our actions, and knew where we were sending the anchor and why. He basically laughed it off, saying words to the effect that someone knew he was at Fort Carson and had sent that anchor to him as a joke. (The DISCOM commander was a Transportation Corps officer and had been an Army watercraft commander during several assignments.)

How Did This Happen?

It turned out that the anchor was not sent to Fort Carson as a joke. This incident occurred when a prescribed load list (PLL) clerk for an armor company tried to order a \$6 incandescent lightbulb for a vehicle and inadvertently keyed in the wrong national item identification number (NIIN) and instead ended up with a \$28,000 anchor. Reportedly, this was a single digit keystroke error.

One might ask if management controls were in the supply system to preclude this type of event from happening. The short answer is yes.

First, the ordering unit’s motor sergeant, motor officer, and company commander should have been reviewing the document register. But in his defense, the clerk thought he was ordering an inexpensive lightbulb. At the time of this transaction, the 4th Infantry Division was

using IBM System 36 computers that enabled each company to remotely order parts using “dumb” terminals. Company PLL clerks ordered repair parts without having to manually fill out computer punch cards. The system was designed to have an on-screen pre-edit feature to ensure fewer errors, but if the offending PLL clerk looked at his screen to see what the part’s corresponding NIIN number and its price, he did not notice his \$28,000 error.

Second, the class IX section of the division materiel management center should have had its Decentralized Automated Service Support System computer (operating the Direct Support Unit Standard Supply System) set to review requests with an extended cost of more than \$5,000 to “error out” for manager review. Had this pre-edit feature been active, a supply manager would have reviewed the supply request, verified that it was correct and accurate, and if all was well, re-entered the request for continued processing.

Likewise, managers at DOL’s class IX supply branch were supposed to review any extended price requests over \$15,000. At both the division materiel management center and DOL, managers had turned off the system parameters that caused high-cost supply requests to error out of the system. Consequently, this part request slid right on through the division and the installation supply systems and into the Army’s wholesale supply system to be filled.

How Was the Request Filled?

Once the supply request left Fort Carson, it moved electronically at the speed of light. Eventually, the supply request arrived at what was then known as Sharpe Army Depot in Lathrop, California. By that time, the supply request had become a materiel release order, meaning that the depot was to retrieve one anchor and ship it to Fort Carson for eventual delivery to the unit that had submitted the order. The anchor would come first to the 704th Maintenance Battalion’s materiel office, where the ordering unit could pick it up and take it to its motor pool.

It was late in the afternoon at Sharpe Army Depot, quite possibly on a Friday, when that materiel release

order arrived for action. A perceptive warehouse supply clerk recognized that the storage location for the item was off of the main Sharpe Army Depot. Being a mission-oriented supply person, the clerk called the remote location and had a driver, known to be at the location, pick up the item corresponding to the NIIN number and storage location and return to Sharpe Army Depot.

The driver did as asked, and upon return to Sharpe, the

anchor was matched with the shipping document. Transportation was arranged, and a commercial flatbed truck picked up the load and headed for Fort Carson. No one at Sharpe Army Depot ever really noticed the disparity between the requested item’s nomenclature of “anchor, marine fluke” and its final destination of an M-60A3 tank company at Fort Carson, which sits high and dry at the base of the Rocky Mountains. The division had only a few small boats within the bridge company of its engineer battalion; it had no large watercraft

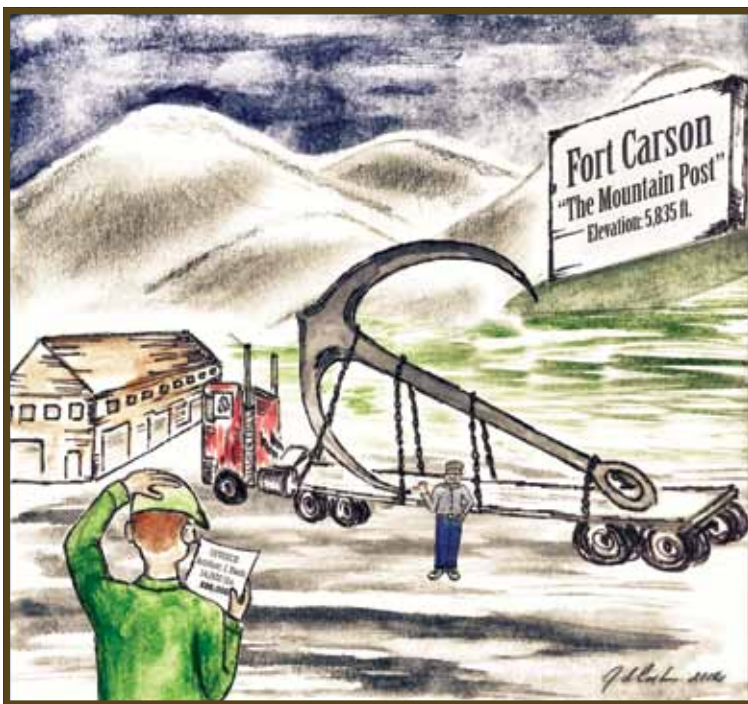
at all, certainly not any boats that could even float with a 14,500-pound anchor aboard.

Questions About an Anchor at Fort Carson

The anchor arrived with a splash in the local community when *The Colorado Springs Gazette-Telegraph*, now known as *The Gazette*, ran a story in its morning edition about the arrival of a large ship anchor at Fort Carson. However, the article did not make even a ripple on the tranquil events going on within the 4th Infantry Division.

For 2 weeks, life was good within the 704th Maintenance Battalion. Then, early one Monday morning, the phone rang. A colonel from the office of the Army Deputy Chief of Staff, G-4, was calling. He wanted to know how a 14,500-pound ship anchor had arrived at Fort Carson, a post easily 1,000 miles from the nearest ocean.

When news of this call was relayed, on a second 3- by 5-inch card to the 4th DISCOM commander, things were not so funny. He was more than a bit perturbed that I had not forwarded the call from the Army G-4’s office directly to him so that he could speak directly with the



Artwork courtesy of James D. Cochran

colonel on the matter. My battalion commander had referred the call to me, I answered the colonel's questions, and that was the last I heard from the Army G-4 office.

However, media interactions were not over. During a subsequent interview, the commanding general of the 4th Infantry Division assured a reporter that he would have *The Colorado Springs Gazette-Telegraph* notified when the anchor left Fort Carson. But a couple of days later, under cover of darkness, the anchor surreptitiously moved from Fort Carson to Pueblo Army Depot, about 40 miles south.

Properly, the Army Materiel Command left the anchor right where it was at Pueblo Army Depot where it was still clearly visible within the Army's wholesale stock record accounts to await any supply request for just such an Army-owned anchor. A couple of months later, another supply request for a 14,500-pound anchor landed on a supply clerk's desk—this time at Pueblo Army Depot. The Navy in Norfolk, Virginia, needed an anchor of just that size for one of its frigates, and off it went.

So now, if you ever hear supply Soldiers talk of an anchor that went to an Army mechanized infantry division, you can know it to be a true event. And you also know some of the unintended consequences of trying to

outsmart the Army's supply system.

The system basically worked as intended. The problems began when human fingers and hands were involved in the transaction. The same is true today. Leaders at all levels need to know what happens with their units' supply transactions. They need to know who is manipulating the operating systems supporting their supply systems and understand the second- and third-order effects of those changes. Otherwise, a leader may become the proud owner of a brand new, but ever so rusty, anchor.

Colonel Neal H. Bralley, USA (Ret.), is a supervisory assistant professor of logistics and resource operations at the Army Command and General Staff College, Fort Leavenworth, Kansas. He served in and commanded at the battery and battalion levels in both field artillery and combat service support units in Korea, Germany, Saudi Arabia, and the United States. He served in joint assignments with the Logistics and Security Assistance Directorate of the U.S. European Command, J-4; Defense Supply Center, Columbus Defense Logistics Agency; and the Logistics and Security Assistance Directorate, U.S. Central Command J-4, with duty in Riyadh.

LINES OF COMMUNICATION

Cargo Unmanned Aircraft Systems

I just read "The Case Against a Cargo Unmanned Aircraft System," which was published in the November–December 2012 issue of *Army Sustainment* and written by Captain Andrew P. Betson, course director of the Defense and Strategic Studies Program at the United States Military Academy.

I understand his point of view but disagree with the intent of the article. The way Captain Betson argues his point is interesting, and he does present some negative aspects of going forward with the concept of a cargo unmanned aircraft system (UAS).

But I believe that the Army, and all military services, must consider moving military personnel—enlisted or officer—out of harm's way. Well-developed and engineered robotic or unmanned systems will provide that capability. Sure, early plans point to a cargo UAS that can carry only

60 pounds, but what can we do to increase the capability?

We must learn to engineer UASs with minimal electronic systems and only low-cost cameras or global positioning systems (GPS), such as an unsophisticated GPS that you can buy in any discount department store or even a smartphone application, to provide rear-area pilot-controllers with the capability to fly the UAS to a destination. These systems must provide the pilot-controller with a simple capability using servo-actuated flight controls to maneuver the UAS. Keep all of the costly associated systems on the ground, in the rear, or in satellites. Think beyond current capabilities. Find a way to get there.

—Harry W. Huyler
Logistics Management Specialist
U.S. Army Pacific

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We are always looking for quality articles to share with the Army sustainment community. If you are interested in submitting an article to *Army Sustainment*, please follow these guidelines:

- ❑ Ensure your article is appropriate to the magazine's subjects, which include Army logistics, human resources, and financial management.
- ❑ Ensure that the article's information is technically accurate.
- ❑ Do not assume that those reading your article are Soldiers or that they have background knowledge of your subject; *Army Sustainment*'s readership is broad.
- ❑ Write your article specifically for *Army Sustainment*; we do not publish articles that have already been published elsewhere.
- ❑ Keep your writing simple and straightforward.
- ❑ Attribute all quotes to their correct sources.
- ❑ Identify all acronyms, technical terms, and publications (for example, Field Manual [FM] 4-0, Sustainment).
- ❑ Review a past issue of the magazine; it will be your best guide as you develop your article.

Departments

Your submission should be geared toward one of *Army Sustainment*'s six departments, which are described in detail below. If you have an article that does not fit into one of our departments but you think it is appropriate for our audience, feel free to contact us.

- ❑ **Spectrum** is a department of *Army Sustainment* intended to present well-researched, referenced articles typical of a scholarly journal. Spectrum articles most often contain footnotes that include bibliographical information or tangential thoughts. In cooperation with the Army Logistics University, *Army Sustainment* has implemented the a double-blind peer review for all articles appearing in its Spectrum section. Peer review is an objective process at the heart of good scholarly publishing and is carried out by most reputable academic journals. Spectrum articles typically are 2,500–5,000 words.
- ❑ **Commentary** articles contain opinions and informed criticisms. Commentaries are intended to promote independent thoughts and new ideas. Commentary articles typically are 800–1,600 words.
- ❑ **Operations** includes articles that describe units' recent deployments or operations. These articles should include lessons learned and offer suggestions for other units that will be taking on similar missions. These articles require an official clearance for open publication from the author's unit. Photo submissions are highly encouraged in this section. Please try to include 5–10 high-resolution photos of varying subject matter. Operations articles typically are 1,200–2,400 words.
- ❑ **Training and Education** is dedicated to sharing new ideas and lessons learned about how Army sustainers are being taught, both on the field and in the classroom. Training and Education articles typically are 600–1,100 words.
- ❑ **History** includes articles that discuss sustainment aspects of past wars, battles, and operations. History articles should include graphics such as maps, charts, old photographs, etc., that support the content of the article. History articles typically are 1,200–3,000 words.
- ❑ **Tools** articles contain information that other units can apply directly or modify to use in their current operations. These articles typically contain charts and graphs and include detailed information regarding unit formations, systems applications, and current regulations. Tools articles typically are 600–1,800 words.

Instructions for Submitting an Article

- ❑ Submit your article by email to usarmy.lee.tradoc.mbx.leeasm@mail.mil.
- ❑ Submit the article as a simple Microsoft Word document—not in layout format. We will determine the layout for publication.
- ❑ Send photos and charts as separate documents.
- ❑ Send photos as .jpg or .tif files at the highest resolution possible. Photos embedded in Word or PowerPoint cannot be used.
- ❑ Include a description of each photo in your Word document.
- ❑ For articles intended for the Operations department, obtain an official clearance for public release, unlimited distribution, from your public affairs office before submitting your article. Include the clearance statement with your submission.

If you have questions about these requirements, please contact us at usarmy.lee.tradoc.mbx.leeasm@mail.mil or (804) 765-4761 or DSN 539-4761. We look forward to hearing from you.

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Sustainer Takes Soldier of the Year Honors

The 2012 Soldier of the Year Sergeant Saral Shrestha and his wife, right, and 2012 Noncommissioned Officer of the Year Staff Sergeant Matthew Senna and his wife pose for a photo after receiving their awards at the Association of the United States Army's Sergeant Major of the Army Awards Luncheon in Washington, D.C. Shrestha is a power generation equipment repairer assigned to Group Service Support Company, Group Support Battalion, 3d Special Forces Group at Fort Bragg, North Carolina. He was among 24 Soldiers representing 12 commands from across the Army who competed in the Best Warrior Competition at Fort Lee, Virginia, in October. (Photo by David Vergun)

