

MARCH-APRIL 2017

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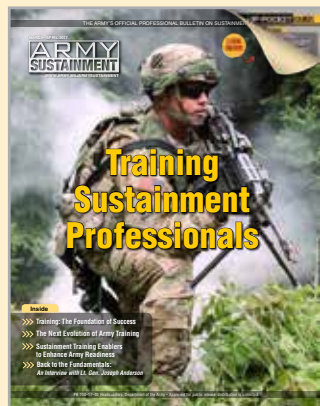
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Training Sustainment Professionals

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A distribution company Soldier from the 3rd Brigade Support Battalion, 1st Armored Brigade Combat Team, 3rd Infantry Division, scans the area for opposing forces during Combined Resolve IV at the Joint Multinational Readiness Center in Hohenfels, Germany, on May 23, 2015. (Photo by Spc. Shardesia Washington)

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Training: The Foundation of Success

To provide units with the best training, commanders must assess risk, prioritize resources, plan training tasks, and capture lessons learned.

■ By Gen. Gustave “Gus” Perna



Readying the current and future force to respond anywhere in the world at any time requires a renewed, focused emphasis on training. Training has been the foundation of success for our Army, and our best leaders and strongest organizations are those that make it a priority.

Sequestration and budget constraints forced the Army to reduce the number and scale of its training exercises over the past few years, leaving units unprepared for unforeseen crises. But we have learned from that; we must protect major training events, such as combat training center rotations, and prioritize training across the force to ensure Army readiness.

Planning Training

An old mantra from my days as a young officer that still rings true today is “training is commanders’ business.” Commanders provide vision and resources and assess and underwrite risk.

We know what right looks like with training; this is not new. We commanders conduct training for three main groups—ourselves, our leaders, and our organizations—and assess that training against the mission-essential task list.

The mission-essential task list forms the basis for training plans, and good planning is the critical component to successful training. Leaders need the confidence and ability to see and assess themselves, identify strengths and weaknesses, identify risk, and apply resources accordingly. Leaders must hold themselves and those under them accountable to execute training to standard.

Well-planned training directly supports a unit’s mission and is linked to combat training center rotations and warfighting tasks. We will always have more requirements than we have time, so it is critical to select and prioritize training tasks that lead to mission accomplishment.

Leaders must identify the skills their units and organizations need, ensure their staffs are proficient in the military decisionmaking process, and execute training accordingly.

Evaluate Training

Our job is not done when training is complete. We must constantly evaluate ourselves, our leaders, and our units. We must ask whether we are training to standard, whether the training is meeting the necessary objectives in support of the mission, and whether we need additional or augmented training.

Following training, the after action review process is critical and remains relevant. After action reviews provide leaders with a known method for capturing lessons learned, successes, and failures. These assessments help to improve future training.

Training is in our Army’s DNA. It is an essential element that ensures the readiness of our force. We must get back to the basics and plan training to execute the mission. Commanders must assess risk and apply and prioritize resources (time and money) to garner the greatest output.

Gen. Gustave “Gus” Perna is the commander of the Army Materiel Command at Redstone Arsenal, Alabama.

“We will always have more requirements than we have time, so it is critical to select and prioritize training tasks that lead to mission accomplishment.”

Preparing Our Sustainment Noncommissioned Officers

To be ready for greater responsibilities, noncommissioned officers must be exposed to the many facets of global sustainment.

■ By Command Sgt. Maj. James K. Sims

One of my goals as I visit sustainment organizations throughout the Army is to impart my vision for how we should be preparing our noncommissioned officers (NCOs) to be sergeants major and command sergeants major (CSMs) in the sustainment community.

Battalion and brigade CSM positions are now open to NCOs from all of the sustainment career fields. This inclusion is absolutely necessary because we cannot afford to limit the pool of candidates to specific career fields. What we need to do now is ensure senior NCOs are thoroughly prepared for the responsibility of being CSMs.

Army sustainment is the provision of logistics, personnel services, and health service support necessary to maintain operations until successful mission completion. Knowing that definition serves Soldiers well on promotion boards, but that alone will not develop NCOs into multifunctional leaders with a broad enough knowledge base to effectively lead an organization tasked with such a wide range of missions.

Time and again, our senior NCOs have been placed into positions of responsibility for which they were not specifically prepared. They have had to rely on critical thinking, past experiences, and problem-solving skills to meet those demands.

Although this speaks volumes about the character of those NCOs, we as a community owe them more. We have an institutional obligation to equip our senior NCOs with the tools required to be effective leaders and to prepare

them for unfamiliar situations.

To fulfill that obligation, we need to expose sergeants first class and senior staff sergeants serving in sergeant first class positions to these areas:

- Logistics estimates.
- Global Combat Support System—Army assistance.
- Property accountability.
- Maintenance operations supervision.
- Finance and banking operations.
- Operational contract support.
- Human resources and financial management.
- Reception, staging, onward movement, and integration.
- Postal operations.
- Theater-level personnel accountability.
- Casualty reporting.
- Materiel management.
- The role of the Army field support battalion.
- Supply chain management.

This is not to say that every NCO should, or even could, learn how to do the jobs of each and every one of their peers. Simply stated, the task at hand is to ensure that NCOs are fully exposed to the global picture of sustainment.

Fortunately, we do not need to reinvent the wheel. All we need to do is figure out the best way to put the wheels that we already have onto the truck and show our NCOs how to drive it. The institutional knowledge and training materials required already exist, and we need only to change our mindset about how and when we expose our NCOs to these concepts.

In coordination with the Training

and Doctrine Command and the Combined Arms Support Command, I have met with the regimental command sergeants major from Fort Lee, Virginia, and Fort Jackson, South Carolina, and have asked them to develop courses of action to accomplish this monumental task. Success can be achieved only through teamwork and a combined effort from every part of the sustainment community.

The professional development of an individual Soldier at any level is about far more than simply developing that one Soldier. Developing greater individual capability and increasing the baseline knowledge of global sustainment among NCOs builds our credibility as leaders.

Everything we do as NCOs must support the priorities of our commanders and the Army and enable mission readiness. Realizing this vision will better prepare the senior NCOs of today and tomorrow to lead sustainment formations into the future and maintain the readiness required to accomplish any mission.

Command Sgt. Maj. James K. Sims is the command sergeant major of the Army Materiel Command. He has a bachelor's degree in business management from Trident University International and is a graduate of the Army Strategic Leadership Development Program, Keystone Course, How the Army Runs Course for Sergeants Major, Jumpmaster School, Battle Staff Course, Sergeants Major Academy, and Command Sergeants Major Course.

The Next Evolution of Army Training

Training must be done right in order to develop competent Soldiers and ready formations. The Army G-4 shares five lessons he has learned about training sustainers.

■ By Lt. Gen. Aundre F. Piggee



“Training is how we fulfill our missions; it is the way we develop the competent Soldiers, leaders, and ready formations that support the Army’s number one priority: readiness.”

Duke University’s Mike Krzyzewski, one of the winningest coaches in college basketball history, got his start 50 years ago playing and then coaching at the United States Military Academy, where he began forming his training philosophy.

“I try to see each new season as a new challenge,” this Soldier for Life says, “because I have a new team to work with, new opponents to encounter, and often new ideas and theories to try.”

That philosophy could just as easily describe the approach the Army takes in training. Each year, new commanders have new Soldiers to work with in their units.

The Army encounters new threats not only in the Middle East but in Europe, Asia, and every region of the world. Most of all, the Army must be bold and innovative in exploring new ideas and developing future systems.

In this issue of *Army Sustainment*, one of my colleagues on the Army staff, Lt. Gen. Joseph Anderson, the deputy chief of staff, G-3/5/7, provides insights into many such innovative systems, including one known as Objective Training (Objective T). This new system will provide a clearer and a more objective measure of a unit’s readiness to deploy.

The Army has always been good at calculating equipment readiness, but measuring training readiness has been more subjective. With Objective T, the evaluation will have detailed criteria with precise metrics. Training will become more measured and results-oriented. Commanders will not be able to just say,

“Things look great.”

A long time ago, I learned you can only implement bold new programs if first you do the basics right. With this in mind, I will share five lessons that I have found most helpful in training sustainers in companies and battalions.

Manage Time Wisely

First, understand that the most important aspect of training management is time. You can always ask for more people. You can ask for more funding. Those resources will fluctuate. But you cannot gain more time.

And it will take far longer to plan, prepare, and execute operations than you think it will. So manage your time wisely.

Make full use of all available time to ensure your Soldiers are competently trained and your formations are ready to execute their wartime missions. As the old adage goes, “In the Army, training is everything and everything we do is training.”

Make sure to include time to re-train at all levels, immediately after individual task training, and after returning from a combat training center rotation. Also include time for leader development.

Hold Better Training Meetings

Second, we all need to hold better training meetings. After a decade and a half of low-intensity, counterinsurgency fighting, we have developed a knowledge and experience gap in training management.

This issue’s [hip-pocket guide](#) is a handy reference on how to conduct better training meetings. Read it,



share it, and use it.

The Army G-3 is updating core training doctrine with newly published versions of Field Manual (FM) 7-0, Train to Win in a Complex World, and Army Doctrine Publication and Army Doctrine Reference Publication 7-0, Training Units and Developing Leaders.

Review the changes, particularly Annex C of FM 7-0, which details the proper conduct of company training meetings (and replaces Training Circular 25-30, A Leader's Guide to Company Training Meetings).

Weekly training meetings are the basis of all of our planning for training. They are opportunities for commanders to re-emphasize published guidance, for staffs to lay out training plans for future events, and for unit leaders to review what went right and where the unit can improve.

Key to effective meetings is having the right attendees present. All primary unit leaders should participate; if they are not there, it sends a message that the meeting is not important. Conduct your meetings at routine times and integrate them into your battle rhythm.

Always have a detailed agenda and reinforce the "T-week" concept. Well-run meetings are conducted in phases. They include a review of the previous week's training, detailed mission planning of short-range events (T-5 through T-1), and an examination of future planned training (weeks T-7 and T-6 and milestones for T-8).

The new FM 7-0 directs that command training guidance at the battalion and brigade levels will now be issued as an operation order developed through the use of the military decisionmaking process. The company level can expect published troop leading procedures captured in training schedules and balanced with the T-week concept.

Following these doctrinal techniques will ensure your unit training management plan conforms to

Army requirements and maximizes available time.

Take advantage of training opportunities in all their various forms. Consider using all live, virtual, and constructive training resources.

Ensure your noncommissioned officers (NCOs) have plans for hip-pocket training. Conduct mission-

learning are important, but they are not as important as the Soldiers themselves, who need to be part of a tight-knit team, make each other better, and build effective sustainment fighting forces.

We should all be cross-training and understanding what our Soldiers are doing, left and right.

Realize that it is better to train to standard on a limited number of tasks and meet those standards than to do a great deal but not meet the standard. As the saying goes, "crawl, walk, and then run."

focused sergeant's time training.

Keep in mind that white space on the training calendar is not bad, but make it a deliberate decision when incorporating it into your training schedules.

Train to Standard

Third, train to standard. Units that train to standard do better at combat training centers and in combat. Never lower your standards or you will start down a path you do not want to take.

Realize that it is better to train to standard on a limited number of tasks and meet those standards than to do a great deal but not meet the standard. As the saying goes, "crawl, walk, and then run."

Develop Subordinate Leaders

Fourth, develop your company commanders and NCOs to effectively manage training. Officers lead collective training while NCOs handle individual training. The challenge for senior leaders is to meld it all into multiechelon, synchronized execution so the various planned efforts and events support the attainment of full mission-essential task list proficiency.

All the tasks that your units are

"Be" Army Ready

Fifth, I believe in the "be" characteristics. These are qualities that make every trainer great.

We must be competent, committed, proud, demanding, calm, caring, confident, complete, fair, loyal, punctual, proactive, flexible, a team player, and safe. Individually, being each of these qualities is important; but incorporating them all together will make us Army ready for whatever mission comes our way.

Training is how we fulfill our missions; it is the way we develop the competent Soldiers, leaders, and ready formations that support the Army's number one priority: readiness. Training results in the muscle memory needed in combat to defeat our nation's foes. Train on!

Lt. Gen. Aundre F. Piggee is the Army deputy chief of staff, G-4. He oversees policies and procedures used by all Army logisticians throughout the world. Prior to joining the Army staff he served as the director of logistics and engineering for the U.S. Central Command at MacDill Air Force Base, Florida.





EIGHT TENANTS OF TRAINING

- 1 Commanders are the unit's primary training managers and primary trainers.
- 2 Commanders train their direct subordinate units and guide and evaluate training two echelons down.
- 3 A leader's primary objective is to train subordinates and organizations for mission success.
- 4 Leaders motivate their subordinates toward excellence and encourage initiative and innovation.
- 5 Leaders place high priority on training and leader development.
- 6 Leaders ensure training is executed to standard.
- 7 Leaders continually assess individual and organizational proficiency.
- 8 Leaders enforce safety and manage risks.

CHARACTERISTICS OF REALISTIC TRAINING

- All leaders are present and engaged.
- Unit effectively leverages training resources.
- Leader development is a priority.
- Leader protects training from distractors.
- Units and Soldiers train with those they operate.
- Training environment replicates an operational environment.
- AARs are integral.
- Training challenges units and Soldiers intellectually and physically
- Training is performance oriented.
- Training is tailored to drive initiative and adaptability.
- Training provides continually changing conditions.
- Units train one level down and evaluate two levels down.
- Units and Soldiers train repetitively.

PRINCIPLES OF TRAINING

- 1 Train as you fight.
- 2 Training is Commander driven.
- 3 Training is led by trained officers and noncommissioned officers (NCOs).
- 4 Train to standard.
- 5 Train using appropriate doctrine.
- 6 Training is protected.
- 7 Training is resourced.
- 8 Train to sustain.
- 9 Train to maintain.
- 10 Training is multi-echelon and combined arms.

TRAINING ACTIVITIES & PRODUCTS

- Publish command training guidance (CTG)
- Training meetings
- T-Week concept
- Training briefings
- Installation training resource synchronization conference
- Commanders' dialogues
- Time management cycles
- UTP calendars
- Company training schedules
- Planning horizons (long, mid, and short)

EIGHT STEP TRAINING MODEL

- 1 Plan the Training
- 2 Train the Trainers
- 3 Recon Training Site
- 4 Issue Order
- 5 Rehearse
- 6 Execute
- 7 Evaluate the Training
- 8 Re-train

TRAINING EVENT PLANNING GUIDANCE

- Review AARs from previous events
- Review training objectives for the event
- Review applicable T&EOs for each MET trained
- Review major resource requirements from the UTP
- Train during normal duty hours unless requested otherwise
- Identify and assess prerequisite training
- Update during unit training meetings



The T-Week concept drives detailed planning of each event. Bottom-up feedback from subordinate leaders and evaluators provides necessary input to objectively assess training conducted. Three phases to company training meetings are:

Phase I. - Assess previous training (T-Week +1).

Phase II.- Coordinate upcoming events (T-Week 5 through T-Week 1).

Phase III. - Plan training for future training events (T-Week 7 and T-Week 6).

COMPANY TRAINING MEETING TIPS

- 1 Ensure all key unit leaders attend training meetings.
- 2 Post the agenda prior to the meeting.
- 3 Make training meetings a routine battle rhythm event.

T-WEEK TRAINING CONCEPT

T-Week	Actions
Week T-13	Identify major training facilities
Week T-12	Conduct training event mission analysis
Week T-11	Refine training event requirements
Week T-10	Publish WARNORD and begin pre-execution checks
Week T-9	Confirm resource requests
Week T-8	Execute reconnaissance and lock in resources
Week T-7	Publish the training event OPORD
Week T-6	Lock in training; publish training schedules
Week T-5	Complete plan and supporting products
Week T-4	Conduct certifications and complete prerequisite training
Week T-3	Conduct rehearsals
Week T-2	Finalize support and conduct OPFOR rehearsal
Week T-1	Draw equipment/supplies and execute subordinate rehearsals/checks
T-Week	Execute training
Week T+1	Recover, conduct final AARs, and assess training

COMPANY TRAINING MEETING AGENDA

Phase I	The commander reviews the previous week's training: <ul style="list-style-type: none"> ■ Update the platoon or subordinate element assessments, to include collective and individual tasks, warrior tasks, and battle drill training (T-Week +1). ■ Identify training not conducted. ■ Update company assessments (METs). ■ Identify retraining required. ■ Identify DTMS database update requirements and responsibilities. 		
	Phase II	The commander coordinates by: <ul style="list-style-type: none"> ■ Reviewing FRAGOs that include new or updated command guidance. ■ Conducting pre-execution checks T-Week 5 through T-Week 1. ■ Identifying any changes to upcoming events (tasks to train). 	
		Phase III	The commander discusses future planning: <ul style="list-style-type: none"> ■ Review battalion and company UTP calendar for adjustment as needed. ■ Provide commander's updated planning guidance for events (adjust training focus of events). ■ Review battalion and company UTP including its calendar for adjustments. ■ Provide the commander's updated planning guidance for events (training objectives). ■ Demonstrate how platoon tasks support company METs. ■ Review draft training schedule for T-Week 7 and T-Week 6. ■ Confirm and identify additional resource requirements. ■ Identify individual tasks for hip-pocket training. ■ Demonstrate how platoon tasks support the company METs (from the company UTP). ■ Review the draft training schedule for T-Week 6 and T-Week 7. ■ Review the major T-Week milestones for T-Week 8 through UTP publication, assign responsibility for the tasks, and receive updates. ■ Confirm and identify additional resource requirements.

Sustainment Training Enablers to Enhance Army Readiness

■ By Maj. Gen. Darrell K. Williams and Kevin M. Born



“The sustainment community must provide the best and most realistic training possible to produce experienced and competent sustainment leaders who are committed to the profession of arms.”

The chief of staff of the Army’s number one priority is readiness. To meet readiness goals, sustainment formations must train and maintain their ability to rapidly deploy, set the theater, and provide timely support in a decisive action environment with a hybrid threat. They must accomplish this in order to sustain maneuver formations by ensuring freedom of action, extending operational reach, and prolonging the endurance of Army, joint, and allied forces.

Field Manual 7-0, *Train to Win in a Complex World*, states that “training is the cornerstone of readiness.” In order to win in a complex world, the sustainment community must provide the best and most realistic training possible to produce experienced and competent sustainment leaders who are committed to the profession of arms.

To meet this goal, sustainers must overcome several knowledge gaps that have emerged in recent years. The Army’s deployments to Iraq and Afghanistan heavily influenced our current generation of sustainment leaders who grew up in an environment where success in training was largely measured by mandated pre-deployment requirements.

As a result, many of these noncommissioned officers, officers, and warrant officers have limited experience in the how-to of the Army’s structured training environment, which was so familiar to prior generations of sustainment leaders. Significant changes in force structure, mission command, and doctrine presented new challenges for our senior sustainment leaders in planning tough, realistic, performance-based training

within brigade and higher sustainment formations.

The Army is transitioning back to a structured training environment and is implementing Sustainable Readiness and Objective Training (Objective T) to build and assess training. In response, the Combined Arms Support Command (CASCOM) has published two documents to mitigate knowledge gaps and provide sustainment units with how-to guidance for training sustainment formations and implementing sustainment leader development.

The newly updated Sustainment Training Strategy and Guide (STS&G) and the Sustainment Leader Development Implementation Plan (SLDIP) are companion publications that together focus on the three domains of training: institutional, self-development, and operational.

STS&G

First published in August 2014 and updated in November 2016, the STS&G provides a road map and a way ahead to help commanders meet unit training proficiency standards. This strategy and guide applies to the total sustainment force, both in the active and reserve components, and all Army organizations that provide sustainment-related training and training support.

The STS&G builds upon the Training and Doctrine Command’s Enhanced Realistic Training initiatives that support all active, National Guard, and Army Reserve units in the areas of logistics, personnel services, and health service support. The 2016 revision reflects the fundamental changes in training and readiness reporting that take place with

the implementation of Sustainable Readiness and Objective T.

The STS&G builds upon home-station training initiatives that support all Army units in areas such as property accountability, maintenance management, rapid deployment, personnel readiness, operational contract support, and other capabilities that enhance the Army's ability to project and sustain operations worldwide.

The STS&G is a living document that addresses our training challenges and provides recommended solutions as well as a way forward for progressive training of sustainment units.

The STS&G provides updates in the following critical areas.

Provides Sustainable Readiness resources. The STS&G provides an overview of the Sustainable Readiness Model. This model will assist sustainment formations in brigade combat teams as well as multifunctional and functional units at echelons above brigade in defining their progressive training strategy.

The STS&G also outlines requirements of the new Objective T mission-essential task list (METL), provides an appendix with samples of newly published Department of the Army standardized sustainment METLs (from the theater sustainment level to the company level), and details live-fire exercise requirements specific to sustainment units.

Provides comprehensive information on total force sustainment training centers. The STS&G provides information on all training centers that provide sustainment unit training resources, including combat training centers, the Mission Command Training Program, mission training complexes, and the Army National Guard Sustainment Training Center. There are specific appendices within the guide for National Guard and Reserve units, which make up most of our echelons-above-brigade sustainment force structure.

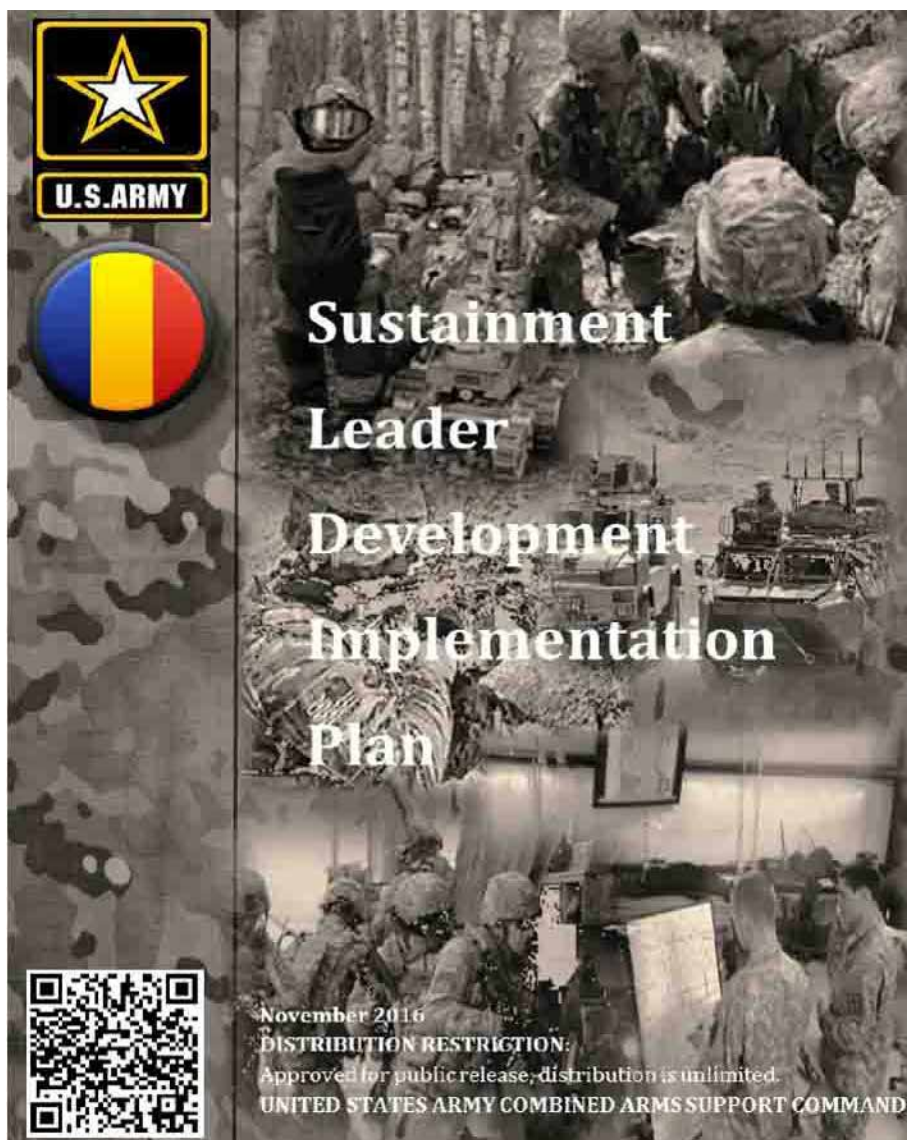
Provides comprehensive sustainment proponent strategies and training resources. Integrated with the Army Training Strategy, the STS&G

includes comprehensive proponent strategies that identify sustainment training priorities that influence the development and execution of the Army's Program Objective Memorandum. Appendices provide in-depth proponent school strategies and training resources to support the operational force.

Proponent strategies are focused on supporting home-station training objectives and provide linkage to key proponent initiatives such as the Quartermaster School's Command Supply Discipline and Property Accountability Programs, the Transportation School's Command

Deployment Discipline Program, the Ordnance School's Unit Diagnostics Immersion Program, and the Soldier Support Institute's Learning Resource Center for the Adjutant General and Financial Management Schools. Operational contract support and training aids, devices, simulators, and simulations are also key areas emphasized within the appendices.

Focuses on decisive action. In coordination with the Army G-4's Logistics Strategic Planning Guidance, the STS&G recognizes the importance of depending on sustainment formations to provide critical, syn-



The Sustainment Leader Development Implementation Plan addresses how Army leader attributes and competencies apply to sustainers.

chronized support for decisive action in the areas of force projection, force reception, onward movement, distribution management, and materiel management.

The strategy provides definitions for these activities and details for training on these critical functions. Additionally, it integrates the roles of our strategic partners in special operations, the Defense Logistics Agency, the U.S. Transportation Command, the Army Materiel Command, and other key organizations.

Provides an expanded discussion on institutional and collective training enablers. The STS&G discusses institutional and collective training enablers that are available in the institutional and self-development domains. It also introduces a number of new initiatives and resources that CASCOM has developed to assist sustainment leaders and Soldiers. One of these resources is the Sustainment Virtual Playbook, which provides interactive, mobile e-learn-

ing training for use of battalion- and brigade-level living doctrine.

Another resource is the command post exercise—functional, which provides expeditionary sustainment command, sustainment brigade, and combat sustainment support battalion commanders with a low-cost exercise that stresses staff interaction, planning, and decision-making and allows units to practice their core mission of sustainment support in a realistic, constructive simulation environment.

The SLDIP

The SLDIP provides guidance on how to build the bench of sustainment leaders required now and in the future. This document addresses the development of sustainment leaders in financial management, human resources, and logistics.

Synchronized with the Army Leader Development Strategy, the SLDIP addresses how Army leader attributes and competencies apply to sustainers.

It also provides these core sustainment competencies: understanding joint combined arms maneuver, expeditionary sustainment, total force sustainment integration, strategic sustainment enterprise operations, unified action partner integration, and sustainment information systems.

The strategy goes on to discuss how CASCOM will develop qualities and competencies within the operational, institutional, and self-development domains and across three lines of effort: experience, education, and training. The Operational Domain section focuses on how military and civilian sustainment leaders work on leader development within our organizations.

The Institutional Domain section describes the approach to be taken by those who develop and execute institutional education and training and informs initiatives in the institutional domain. This approach includes the CASCOM Leader Development Program, in which senior leaders



Staff Sgt. Teresa Santos and Spc. Cassidy Kilpatrick, both assigned to the 24th Ordnance Company, 87th Combat Sustainment Support Battalion, 3rd Infantry Division Sustainment Brigade, provide combat casualty care under fire during training at Fort Stewart, Georgia, on Dec. 7, 2016. (Photo by Spc. Jamie Beale)

within the various CASCOM organizations are paired with students in professional military education at the Army Logistics University and Soldier Support Institute.

Through this program, leaders form relationships with classes and leverage a variety of engagements to mentor these junior leaders. Their shared experiences on applying the course subject matter in the operational force are invaluable for sustainment leaders preparing to train their units for any type of operation.

The Self-Development Domain section identifies available resources for sustainment leaders that will help them to expand beyond their experience and education.

SUOS Resources

Both the STS&G and the SLDIP are available in the “Hot Topics” section of the Sustainment Unit One Stop (SUOS) website at www.cascom.army.mil/g_staff/g3/SUOS/index.htm.

The SUOS is CASCOM’s portal that provides one-stop access to unit-specific pages containing the most current CASCOM training, doctrine, and lessons learned products that support home-station training. The SUOS integrates access to CASCOM’s training, doctrine, force development, lessons learned, logistics estimation, and knowledge-sharing products.

The SUOS also provides links directly to unit training management tools and resources, such as the new Field Manual 7-0, combined arms training strategies, Department of the Army standardized METLs, as well as the Digital Training Management System and the Army Training Network. It also provides links to video tutorials and overviews, such as resources for using the Sustainment Virtual Playbook and milWiki for doctrine. The “Hot Topics” link also provides access to the newest sustainment material including Objective-T and Sustainable Readiness.



National Guard Soldiers from the 369th Sustainment Brigade conduct tactical lanes training at Fort Indiantown Gap, Pennsylvania, on Aug. 23, 2016, in preparation for their upcoming deployment to Kuwait. (Photo by Sgt. Cesar Leon)

I encourage you to share this valuable resource with leaders, both inside and outside the sustainment community.

Training Readiness Commitment

CASCOM is the brain trust for present and future sustainment leaders. Its staff endeavors to provide the highest quality institutional education and training opportunities and to be a resource for the operational force. CASCOM supports readiness by growing highly qualified sustainment Soldiers, civilians, and leaders and by developing collective training standards for sustainment formations.

All sustainment warfighting function schools have a common goal, representing sustainment in training development, education, and instruction. The schools’ instructors and leaders also represent the warfighting function as they engage organizations outside CASCOM to build world-class Soldiers, civilians, leaders, and units that support operational Army

readiness for multidomain battle.

Training remains the foundation of the sustainment community’s transformation under Army 2020. The STS&G and SLDIP are tools to develop the sustainment professionals that the Army needs now and will need in the future.

The intent is for these documents to positively affect the training of our sustainment formations and formations across the total Army. There exists a sustainment aspect within every warfighting function, so I strongly encourage leaders of all warfighting functions to digest the content of these two documents.

Maj. Gen. Darrel K. Williams is the commanding general of CASCOM and the Sustainment Center of Excellence at Fort Lee, Virginia.

Kevin M. Born is the chief of collective training development in the CASCOM G-3/5/7 at Fort Lee, Virginia.



Command Sgt. Maj. David Davenport Sr., the Training and Doctrine Command's command sergeant major, discusses changes to Soldier training over lunch with leaders from the 1st Battalion, 209th Regiment (Regional Training Institute), on Sept. 29, 2016, at Camp Ashland, Nebraska. (Photo by Spc. Lisa Crawford)

Where the NCO Professional Development System Began

The modern concept of training the Army's NCOs has been in place for nearly half a century. New additions to the program bring greater flexibility in training leaders.

■ By Command Sgt. Maj. David S. Davenport Sr.

There seems to be a misconception throughout the force that the concept of the Non-commissioned Officer Professional Development System (NCOPDS) is new. Actually, it began in 1971 as the Noncommissioned Officer Education System (NCOES).

In the early 1970s, the first commander of the Training and Doctrine Command (TRADOC) and his deputy chief of staff for training set out to transform the Army Training Program, a World War I-era program that had become distorted during the Vietnam

War. Part of that transformation included initiatives to establish a sequential and progressive education program for noncommissioned officers.

These efforts included various studies, which eventually led to the select-train-promote methodology. This should sound familiar; NCOPDS evolved from this methodology as well.

However, the NCOPDS method includes an emphasis on education. That method is known as STEP, which stands for select, train, educate, promote.

NCOES

NCOES featured four vertically integrated levels of training: primary, basic, advanced, and senior. The intent was to develop NCOs' skills and establish training standards that would help to define their roles and responsibilities.

These levels of training provided the NCO Corps with rigorous and relevant training for both resident and nonresident courses. The institutions that supported the training provided resources and guidance to help shape lifelong learning in support of mission execution, profes-

sional growth, and personal goals.

Various revisions to NCOES throughout its history established its functionality. The Army has improved the system continually based on its contemporary operational environment.

Why Change?

When the operational force made it clear that the select-train-promote model was not meeting the educational intent, it was clear that it was time for a change. NCOs often attended an NCOES course well after they had already served in an assignment in which the course's instruction and skills were needed.

The force also complained that the courses needed better instruction on leader development, counseling, training management, communication skills, and tasks common to all military occupational specialties. Training rigor and standards also needed to be raised in order to provide experiential learning. These changes needed to happen to support the best education system possible, so NCOPDS was designed.

Fostering Holistic Change

NCOPDS was established to operationalize the concepts and lines of effort outlined in the NCO 2020 Strategy. The system is designed to develop NCO competencies for the 21st century and to support greater flexibility with regard to when, where, and how Soldiers learn. In order to accomplish these goals, the Army must strategically shape new policy, leverage innovation, and focus on closing performance gaps using an organized framework that establishes achievable milestones.

NCOPDS represents a transparent and grounded approach to managing future changes in how the Army trains and develops Soldiers. As an approach, it is intended to support imperatives related to the Army profession, mission command doctrine, human performance optimization, and combat readiness of the force. The approach to this

system will ensure the NCO Corps is prepared to fight and win our nation's wars and will enhance the overall readiness of the Army.

The NCO 2020 Strategy was developed as a means to create this production system that provides NCOs with access to developmental and broadening experiences. The desired end state of the NCO 2020 Strategy includes the following outcomes:

- Providing the Army with a more adaptable, resilient NCO Corps.
- Improving professionalism, training, and education expertise.
- Providing challenging, relevant, and rigorous leader development training, education, and experiences.
- Articulating learning responsibilities and requirements across the three learning domains (institutional, operational, and self-developmental) and integrating them into a synchronized, effective, and efficient development system.
- Improving professional development models and learning curricula so that Soldiers and leaders can assess progress, track learning events, create goals, and certify professionals to identify and develop NCOs to serve at operational and strategic levels.
- Ensuring that the Army, commanders, and NCOs are satisfied with development programs and performance policy.
- Ensuring that doctrine and programs fully support a lifelong learning environment and the needs of both active and reserve Soldiers.

Central to the NCO 2020 Strategy is that NCOs at all levels understand their responsibility to continually mentor and develop Soldiers. Army senior leaders set conditions for development by teaching, training, and providing the experiences NCOs need to grow as leaders. Additionally, leaders help individuals realize that a commitment to career-long learning

is essential to their development and to the readiness of the force.

Sustaining NCO Development

The goal of NCOES has always been to prepare NCOs to lead and train Soldiers and to assist their leaders in executing unit missions. Now that NCOPDS has been established, we also want the NCO Corps prepared to fight and win our nation's wars and to enhance the overall readiness of the Army while remaining consistent with the NCO Corps' vision.

The TRADOC commanding general, Gen. David G. Perkins, and I are striving to find innovative ways to better prepare the NCO Corps for the challenges of an uncertain future. To accomplish this, TRADOC must fundamentally change NCOES into a system that links training, education, and experiences that span the operational, institutional, and self-developmental learning domains.

By implementing NCOPDS, TRADOC is creating professional, adaptive, trained, and ready NCOs who will be supported by a holistic development system that provides appropriately designed learning experiences at the points of need. We are developing the next generation of competent and committed NCOs of character and trusted Army professionals who are adaptive, capable of thriving in chaos and ambiguity, and prepared to win in a complex world.

NCOs are as critical as ever in supporting our Army's ability to overcome ever changing operations across multiple domains. We must leverage our experiences to prepare our Soldiers and develop the future NCO Corps to meet those challenges and remain ready as the world's premier combat force.

Command Sgt. Maj. David S. Davenport Sr. is the command sergeant major of TRADOC. He holds an associate degree in liberal arts, a bachelor's degree in social work, and an MBA from Norwich University.

Protecting the Tail of the Tiger: Reshaping the Way We Train Logistics

■ By Capt. Travis Michelena

Throughout history, each powerful military either has learned to master logistics or has withered without it. Keen military strategists such as Julius Caesar and Genghis Khan recognized that if they cut off the supply lines, they could simply wait for the enemy to weaken or grind to a halt as the flow of logistics trickled to a stop.

Likewise, early in World War II, the German army swept across Europe with unmitigated success thanks to its strong supply lines. However, the targeted Allied bombing of German fuel storage and production facilities eventually immobilized German forces, paving the way to Allied victory. As the Germans discovered, one of the best ways to defeat a powerful combat force is to attack its support structure.

As the Army shifts its training focus from fighting counterinsurgency to combating a hybrid threat, it is increasingly important to address how the Army's logistics infrastructure, security, and training maintain the continued superiority of its combat forces.

Questions for the Future Fight

During World Wars I and II, U.S. forces had advance warning and a period of protection in which to mobilize. Facilities had years to ramp up production to support the war effort. As the wars progressed, the relative isolation of the United States kept its manufacturing resources safe. This may not be the case in the next major conflict. How long will U.S. stockpiles of materiel last? Are the nation's logistics assets ready to provide continual support across the world?

Current operational logistics train-

ing includes abundant supply that is usually within close proximity to warfighters and is provided with little regard to time, distance, priorities, repair, or limitations. This raises the following questions: Can combat leaders function with limited supply? When was the last time they did? Are U.S. forces conditioned to expect bottomless supply?

Protecting the supply lines is of the utmost importance in sustained conflicts. No amount of combat power can win a battle while it waits for fuel and ammunition.

Current Training

The current Army training structure focuses on preparing the combat arms branches for conflict anywhere in the world. The first-class training facilities and personnel at the

National Training Center (NTC) in California, the Joint Readiness Training Center in Louisiana, and the Joint Multinational Readiness Center in Germany do an excellent job of preparing forces for combat. However, they fail to stress logistics infrastructure or to teach vital lessons in resource management and expectations.

While there are challenges, there are no true limits on available supply, no consequences exist for losing supplies during enemy action, and support moves over hours, not days.

I propose that because our logistics system is so reliable, some combat leaders dismiss proper logistics planning and have not experienced the effects of limited or lost supply. It is vital during training to stretch logistics capabilities and allow limit-



Spc. Chase Byrum, a petroleum supply specialist with A Company, 149th Brigade Support Battalion, fuels a heavy expanded-mobility tactical truck tanker in preparation for a logistics convoy at a National Guard training area in Artemus, Kentucky, on June 5, 2016. (Photo by Maj. Carla Raisler)

ed disruption of the supply chain in order to reinforce proper contingency planning and resource management.

Training for Distance

Logistics systems and units are designed to move supplies over the long distances that contingency operations will likely present, yet the Army trains with logistics in relatively close proximity. During training, even long-haul assets drive just a few miles to resupply a combat sustainment support battalion (CSSB) or a brigade support battalion. The availability diminishes the need for correct tracking and reporting because resupply is never far away.

What happens when the CSSB is located hundreds of miles from the front lines and has to support several brigade combat teams, as outlined in doctrine? There is no perfect solution, but it would add training value for both the logisticians and their customers to put the CSSB and higher echelons of support much farther away.

At the NTC, the CSSB could be placed at Fort Hunter-Liggett, California. For the JRTC, locating the CSSB at Fort Hood, Texas, or Camp Shelby, Mississippi, would create distances of over 300 miles. The extended distances would benefit both the supporting and supported units because it would ensure each forecasts and validates requirements prior to logistics convoys, and it would allow convoy commanders to gain experience with complex long-distance moves.

Training for Limited Supply

It is hard to imagine having a lack of fuel, ammunition, or parts. From my experience as a forward support company (FSC) commander, the FSC did its best to provide as many supplies as possible. The logistics status reports sent from the supported companies were not accurate, but it did not matter that much. The FSC pushed fuel and food daily and mission configured loads of ammunition any time there was a firefight.

The FSC's Soldiers took a lot of pride in not allowing logistics to be the point of failure. However, this is not realistic and does not teach the supported company executive officers how to or why they should track their internal supplies, especially fuel.

There is value in limiting available supplies. For one, it would save thousands of dollars each exercise, but more importantly, it would give the senior leaders a supply "budget" to manage.

For instance, given a limited amount of fuel and ammunition, which units have priority for the next mission? How much fuel is held in reserve? I would wager that in this scenario the senior commanders would pay more attention to logistics movements and distribution, which in turn, would result in more well-rounded leaders.

The Consequences of Loss

Perhaps the most important element missing in training logistics is the consequences of loss. Too often, logistics assets are soft targets with limited radio or battlefield tracking systems. Units are frequently left to defend their own convoys even though they do not have the equipment or personnel to do so. Vehicles are retrofitted with radio mounts and machine-gun ring mounts, but security has not been made a priority.

The combat battalions resist losing forward assets to defend supply routes and convoys. Logistics units are most often left to defend themselves and, for the most part, do a fine job executing missions. However, they are also left relatively undisturbed during combat training center rotations. There may be an improvised explosive device here or there, or maybe some small-arms fire, or civilians blocking the road, but the supplies never stop.

If a convoy is attacked and the observer-coach/trainer assesses that one fuel truck and one palletized load system carrying meals ready-to-eat have been destroyed, then why allow the resupply to continue to its desti-

nation? If that destruction were reality, then the logistics planners would have to work together to develop a resupply plan.

They would have to put thought into alternate routes, various start point times, and asset management. No Soldiers would starve, but they may have to eat two meals ready-to-eat that day instead of three.

The loss of fuel might require tanks to be turned off instead of idling all day or scouts to use humvees instead of Bradley fighting vehicles for reconnaissance missions. Interrupting supply chains will not stop the combat missions, but it will broaden the scope for the commanders and staff officers taking part.

The goal is to get commanders to think through all the problems, not just the combat one. There is truth to the military adage "amateurs talk tactics, while professionals talk logistics," but we continue to ignore the potential weaknesses in our support structure.

In the current structured training scenarios, the supply flow is not touched for fear that it will interrupt the combat training. Disruption is exactly what will happen, but when properly administered, it will have positive training value for both logisticians and combat leaders.

History implores us to train, build, and protect the tail of the tiger as much as we do the teeth, and it is imperative that we do not wait. While both offensive and defensive tactics and technology perpetually seek to counter one another, logistics remains the true linchpin in victory or defeat.

Capt. Travis Michelena is a senior observer-coach/trainer and the Headquarters and Headquarters Company commander for the 181st Multifunctional Training Brigade at Fort McCoy, Wisconsin. He is currently completing his master's degree in emergency management through Arizona State University.



Soldiers of the 651st Quartermaster Company from Casper, Wyoming, empty a water storage bladder during a combat support training exercise at Fort McCoy, Wisconsin, on Aug. 7, 2016. (Photo by Spc. John Russell)

Developing Sustainment Leaders for the Future Fight

Understanding the contributions of expeditionary logistics to warfighting formations could make the difference between winning and losing the next fight.

■ By Lt. Col. Adrian Gamez and Lt. Col. Matthew A. Price

Operations Iraqi Freedom and Enduring Freedom proved that the Army was absolutely ready to engage the enemies of our nation and defeat them on the field of battle. Our resolve was unmatched by our adversaries. While those operations taught us many important lessons, they made the Army complacent about preparing for expeditionary logistics.

Understand Tomorrow's Fight

Forward operating bases (FOBs) represent the least expeditionary support the Army has used in recent times. FOBs in Iraq and Afghanistan were enclosed enclaves with hundreds of thousands of gallons of fuel, robust but static multiclass supply activities capable of storing millions of dollars' worth of equipment and repair parts, a plethora of contractors that repaired Army equipment and prepared meals in the dining facilities, and state-of-the-art medical treatment facilities with medevac capabilities ready to launch at a moment's notice.

Sustainers could recover from inadequate plans to provide just-in-time logistics because materiel and support were available. Maneuver commanders, as well as logisticians, acclimated to this steady support, and it is now what many officers expect.

However, tomorrow's fight will not be FOB-centric. It will require fighting in a linear battlespace where limited lines of communication and freedom of maneuver will challenge sustainers' ability to push supplies, stockpile commodities, or rapidly

evacuate casualties. It will require faster movement, advance planning, and more creativity and innovation.

Tomorrow's sustainers will have to understand tactical operations as well as who and what they are supporting. They will have to understand the logistics enterprise, where sustainment comes from, when it will arrive, and how it is distributed. They will have to think in terms of operational reach (defined by distance and duration), be able to foresee culminating points, and understand the inherent risks associated with combat operations.

Understand Tactical Operations

Sustainers need to understand tactical operations in order to ensure that warfighting commanders are properly supplied to fight. For logisticians, threats could come from any direction at any time from near-peer adversaries with lethal, hybrid capabilities.

Sustainers must understand the type of operations and personnel they support. They must be able to support offensive, defensive, and stability operations simultaneously. And they must be able to support operations without any breaks in sustainment, even during periods of limited visibility. This will require timely and accurate logistics status reports, synchronized resupply operations, and common operational pictures that reflect the fight and can be used to plan follow-up operations.

Understand Task Organization

Sustainers must understand the task organization of the units they support.

The task organization determines the requirements for sustainment, and logisticians nest capabilities within organic and attached units to support the entire formation.

Sustainment unit leaders need to comprehend the entire brigade combat team's (BCT's) modified table of organization and equipment as well as their own. This is essential in determining operational reach.

They also need to understand how having enabling organizations attached to the BCT unburdens organic capabilities. These enabling formations extend distance and duration. Not all formations are equipped in the same way nor do they have the same level of training, and most attached organizations will not understand the BCT's standard operating procedures.

A capabilities briefing will assist with receiving attachments. As the BCT grows, so will sustainment requirements. Once shortfalls caused by increases in personnel and equipment are identified, sustainers will need to know how to leverage the logistics enterprise to overcome them.

Understand the Logistics Enterprise

Sustainment leaders need to understand the logistics enterprise in order to be successful. This requires establishing relationships with subordinate commands and higher echelon logistics elements. Sustainment does not just appear on the battlefield; it takes coordination and synchronization to move supplies and personnel.

Sustainment leaders need to know



New York Army National Guard Soldiers of the 369th Sustainment Brigade conduct tactical lanes training at Fort Indian-town Gap, Pennsylvania, on Aug. 23, 2016, as part of training for a deployment to Kuwait. (Photo by Sgt. Cesar Leon)

what information and training logistics enterprise-level organizations, such as the Army Materiel Command, the Defense Logistics Agency, and the Combined Arms Support Command, provide to assist them in streamlining sustainment management. If sustainers know the capabilities of theater support commands and sustainment brigades, they can leverage their expertise and eliminate shortfalls within the BCT.

Sustainment leaders have to be intellectually curious about how best to support their formations. Success depends on how well sustainers can establish relationships within the logistics enterprise and integrate the enterprise's collective knowledge into their sustainment operations.

Understand the Risks

Every operation has inherent risk. Despite this risk, sustainment leaders must be bold and decisive and take violent action when necessary. There will be uncertainty during every convoy. The intelligence report a convoy commander receives may change two or three hours later. Logisticians must take risks to sustain formations and their missions, even when it seems safer not to conduct distribution operations.

In order to mitigate risks, leaders must consider all threats to the force and their missions while being aware of strategic and political perils. Risks to the force are mitigated by training formations to ensure the welfare of each Soldier. Mission risks are mitigated by understanding the unit's readiness, properly task organizing, and ensuring assigned units are resourced properly for mission accomplishment.

Finally, formations must understand the strategic and political implications of their formation's action or inaction. For sustainment leaders, assessing these risks is a fundamental mechanism for mission planning and is unique to sustainment missions. Soldiers must understand the operational environment and the rules of warfare.

Warfare is different, technology is different, and the enemy we fight tomorrow will be different. Sustainers at all echelons must understand that their contributions to warfighting formations may determine whether we win or lose the next fight. They must understand tactics and task organization. Sustainment formations need assistance, and savvy logisticians will leverage the logistics en-

terprise and echelons-above-brigade sustainment formations for support.

Finally, leaders must mitigate risks to their Soldiers during prolonged combat operations. In order to reduce risk, sustainment leaders must train Soldiers to be uncomfortable by training them in adverse conditions and at night. There are no resets in combat like there are at a combat training center. Through our best training efforts, we build competent and ready sustainment formations.

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Lt. Col. Matthew A. Price is the Joint Multinational Readiness Center S-4. He holds a master's degree in business administration from St. Martins University and a master of military art and science degree from the School of Advanced Military Studies. He is a graduate of the Command and General Staff College, the NATO Logistics Course, and the NATO Staff Officer's Course.

Management Versus Command

Commanders should be wary of the way that the Army has exchanged intuitive command processes for systems-engineering thinking.

■ By Christopher R. Paparone, Ph.D., and George L. Topic Jr.

Since the 1960s, the reliance on systems engineering, quantitative, and economic optimization approaches to efficiency has steadily grown. While we obviously recognize the value of decision support tools, technology, and modern information management, we want to encourage contemporary leaders to balance the seductive appeal of these tools with responsible judgment and moral reasoning (a commander's intuition).

In the September 1961 issue of *Military Review*, Lt. Col. David Ramsey authored an article entitled, "Management or Command?" This article was written during an interesting period in modern military history, just 14 years after the establishment of the position and office of the secretary of defense. During this time, computer, aerospace, and combat systems technology accelerated alongside a corresponding shift toward more efficient administrative and logistics organizations, authorities, and associated complicated processes.

In his article, Ramsey writes about the dangers of believing that command and management are synonyms. He points out that while management is all about improving technology and processes for economic performance, military command focuses on the legal and moral authorities that ensure national security and carry the responsibility for the life or death consequences affecting those commanded in war.

In the five-plus decades since Ramsey's article was published, the tension between management and command has served as a source of ethical dilemmas for the U.S. military. We believe that studying and

clearly recognizing this tension is important for all leaders, particularly those attending logistics education and training, and we fear that lately the topic is addressed less and less at educational institutions and, consequently, in the field.

In the same issue of *Military Review*, Gen. Bruce C. Clark wrote, "Mission-Type Orders." In the article, he states, "As battle becomes more complex and unpredictable, responsibilities must be more and more decentralized." The Army's more recent attempt to rename this philosophy "mission command" is meeting with mixed results for the same reasons that Ramsey's and Clark's recommendations did not change the trend in their day toward systematic management controls. With the Army's impetus toward employing high-level technologies to execute enterprise resource processes, the ethos of systematic management has won decisively.

Within the logistics community, the reliance on systematic management is particularly pronounced. While we logisticians benefit from its efficiencies, we may also be accepting significant risk. The logic of systems engineering applies to how we organize in anticipation of missions. Units are preconfigured to perform doctrinally categorized sets of detailed tasks.

Indeed, today's organizations are managed around the systematic integration of personnel and equipment that, like automobiles, are designed to perform reliable "warfighting functions" comprising a doctrinal hierarchy of tasks equally engineered to be executed, like an assembly line, in

training, plans, and orders. In a complex world, the commanders' tasks are not clear (as they are in plans and orders), and until the commanders act, they will not know what tasks need to be executed and what factors will complicate their missions.

While we are not discounting the benefits of systems management, we are concerned about institutional blind spots that inhibit sound judgment in command. Clark, Ramsey, and other past leaders have recognized the dangers of over-managing. Today's doctrine doubles down on the belief that warfare is a matter of "system of systems" integration and synchronization.

In *From Moltke to Bin Laden: The Relevance of Doctrine in the Contemporary Military Environment*, military historian Albert Palazzo notes, "The risks of an adherence to doctrine may be too great for the present and future conflicts of the twenty-first century. Doctrine flourished in an age of specificity and obvious threat. That age has clearly passed."

As logisticians, we should pause and think deeply about whether or not we are losing the appropriate command philosophy to the lure of building and controlling management systems. The answer is to find balance between these poles.

Christopher R. Paparone, Ph.D., is a dean at the Army Logistics University at Fort Lee, Virginia.

George L. Topic Jr. is the vice director of the Center for Joint and Strategic Logistics at Fort McNair, Washington, D.C.

Let's Talk!

milSuite

Sustainment mission command in a globally distributed environment

By Maj. Gen. Edward F. Dennis II July 8, 2016



In the vast, noncontiguous Pacific theater, the 8th Theater Sustainment Command (TSC) is responsible for building and sustaining land component and joint force readiness despite the "tyranny of distance." This globally distributed environment includes multiple theaters of operations full of geopolitical intricacies. Almost 25 percent of the U.S. active duty military force is in the Pacific theater, spread across 16 time zones.

What the 8th TSC does not have is direct mission command relationships with subordinate ending formations. Through a combination of directed authority, sustainment integration, designated roles and responsibilities, and relationships and influence, the 8th TSC controls a supply pipeline that it does not own.

TOP 5

AUGUST 1, 2016
Senegalese Readiness exercise

AUGUST 1, 2016
Neuroscience battlefield

JULY 29, 2016
In Roman enemy for

JULY 29, 2016
Army jumps paratrooper

JULY 29, 2016
Army recovers America

JULY 28, 2016
NCOs sought for assignments

JULY 28, 2016
Checks for Lake Champlain

July-August 2016 issue of Army Sustainment magazine

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ARMY G-4

Operational Mission Command: Using Authority and Influence

The Army G-4 discusses the importance of using command influence to manage command and support relationships in order to improve readiness.

By Lt. Gen. @Glenora Price

FOCUS

Shaking the Chain Planes

What happened in the Theater Logistics Studies Program?

By Maj. Gen. Donald K. W. Vance and @Kermit Lee III

FEATURES

Sustainment Mission Command in a Globally Distributed Environment

In the Pacific theater, the 8th Theater Sustainment Command applies the principles of mission command through operational influence rather than through direct control.

By Maj. Gen. Edward F. Dennis II

Operational Design for Expeditionary Corps Support

The commander of the 10th Expeditionary Sustainment Command describes the operational design that enables it to provide expeditionary support to 1 Corps' widely dispersed units.

By Maj. Gen. Mike 'Jack' Italy

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Jose Carrion As active, was there, 80N, 80M, brought a lot of memories.

Like Reply Message July 18 at 8:10pm

Jeanine Fuentes Go TC spear head of Logistics!

Unlike Reply Message July 18 at 8:57pm

Bobby Dowell Need a job can u get me in

Like Reply Message July 18 at 9:35pm

Maureen M Mirawski Thanks for sharing. I thought everything was flown in.

Like Reply Message July 18 at 9:43pm

Shirley Yaw Thank you for your service and your many sacrifices . God bless

Like Reply Message July 18 at 10:26pm



Submissions

Commentary

Commentary articles contain opinions and informed criticisms. Commentaries are intended to promote independent thoughts and new ideas. Commentary articles typically are 800 to 1,600 words.

Spectrum

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 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 to 5,000 words.

Features

Features includes articles that offer broader perspectives on topics that affect a large portion of our readers. These can focus on current hot topics or the future of the force. These articles can be referenced, but it is not required if the content is within the purview of the author. While these articles can be analytic in nature and can draw conclusions, they should not be opinion pieces. Features typically are 1,600 to 5,000 words.

Operations

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 five to 10 high-resolution photos of varying subject matter. Operations articles typically are 1,200 to 2,400 words.

Training & Education

Training & 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 & Education articles typically are 600 to 1,100 words.

Tools

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 to 1,800 words.

History

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 to 3,000 words.

Writing for *Army Sustainment*

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*. If you have

submitted your article to other publications, please let us know at the time of submission.

- Keep your writing simple and straightforward.
- Attribute all quotes to their correct sources.
- Identify all acronyms, technical terms, and publications.
- Review a past issue of the magazine; it will be your best guide as you develop your article.

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 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.

Send photos and charts as separate documents.

For articles intended for the Operations department, obtain an official clearance for public release, unlimited distribution, from your public affairs and operational security offices before submitting your article. We will send you the forms necessary for these clearances.

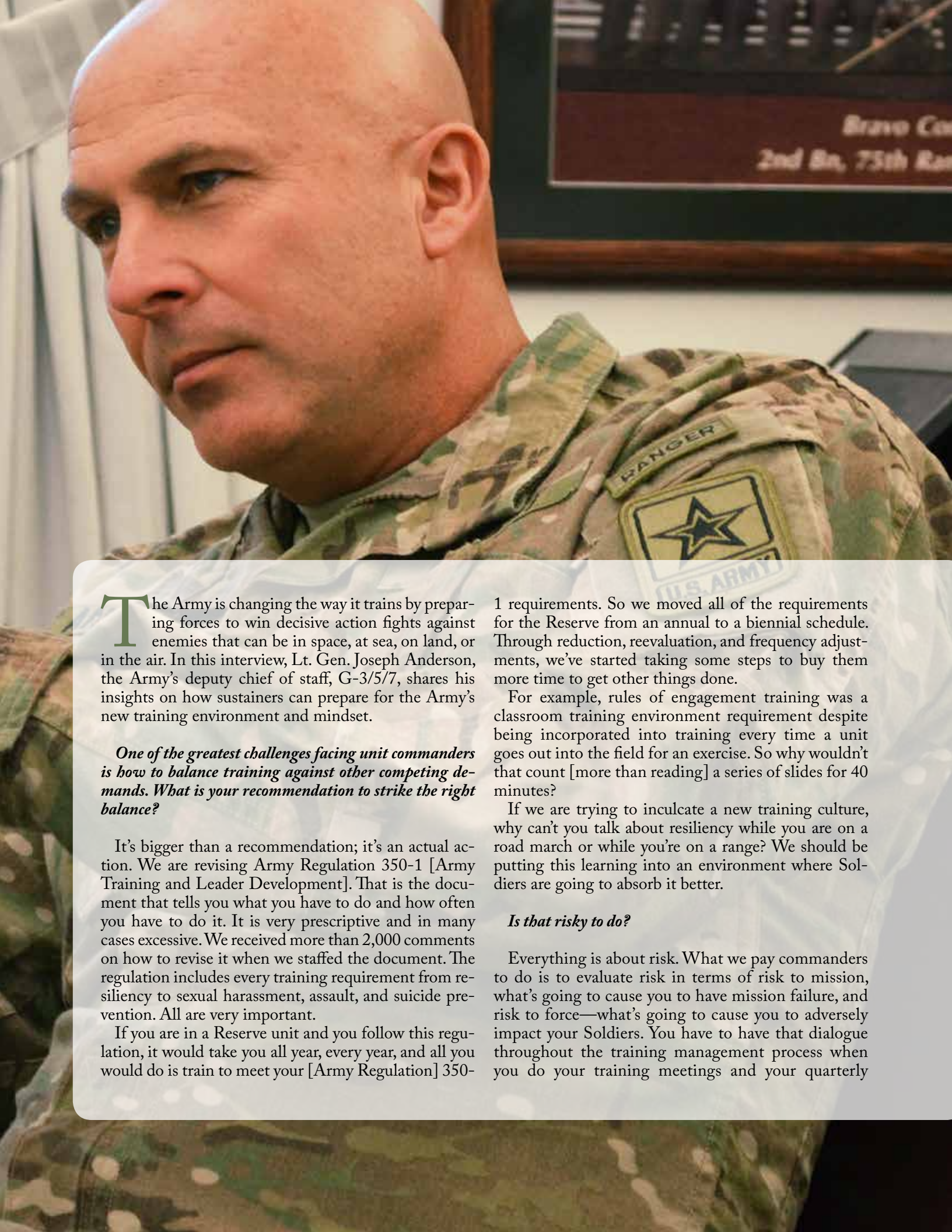
If you have questions about these requirements, please contact us at usarmy.lee.tradoc.mbx.leeasm@mail.mil or (804) 765-4761 or DSN 539-4761.

A photograph of Lt. Gen. Joseph Anderson, the Army's deputy chief of staff, G-3/5/7. He is wearing a camouflage military uniform and has his hands raised in a gesture. In the background, there is a shelf with various military medals and a framed photograph of a group of people in military uniforms. The text "Back to the Fundamentals: An Interview With Lt. Gen. Joseph Anderson" is overlaid on the image.

Back to the Fundamentals: An Interview With Lt. Gen. Joseph Anderson

■ By Arpi Dilanian and Matthew Howard

Lt. Gen. Joseph Anderson, the Army's deputy chief of staff, G-3/5/7, shares his insights on the Army's new training strategy. (Photo by Sam Curtis)



The Army is changing the way it trains by preparing forces to win decisive action fights against enemies that can be in space, at sea, on land, or in the air. In this interview, Lt. Gen. Joseph Anderson, the Army's deputy chief of staff, G-3/5/7, shares his insights on how sustainers can prepare for the Army's new training environment and mindset.

One of the greatest challenges facing unit commanders is how to balance training against other competing demands. What is your recommendation to strike the right balance?

It's bigger than a recommendation; it's an actual action. We are revising Army Regulation 350-1 [Army Training and Leader Development]. That is the document that tells you what you have to do and how often you have to do it. It is very prescriptive and in many cases excessive. We received more than 2,000 comments on how to revise it when we staffed the document. The regulation includes every training requirement from resiliency to sexual harassment, assault, and suicide prevention. All are very important.

If you are in a Reserve unit and you follow this regulation, it would take you all year, every year, and all you would do is train to meet your [Army Regulation] 350-

1 requirements. So we moved all of the requirements for the Reserve from an annual to a biennial schedule. Through reduction, reevaluation, and frequency adjustments, we've started taking some steps to buy them more time to get other things done.

For example, rules of engagement training was a classroom training environment requirement despite being incorporated into training every time a unit goes out into the field for an exercise. So why wouldn't that count [more than reading] a series of slides for 40 minutes?

If we are trying to inculcate a new training culture, why can't you talk about resiliency while you are on a road march or while you're on a range? We should be putting this learning into an environment where Soldiers are going to absorb it better.

Is that risky to do?

Everything is about risk. What we pay commanders to do is to evaluate risk in terms of risk to mission, what's going to cause you to have mission failure, and risk to force—what's going to cause you to adversely impact your Soldiers. You have to have that dialogue throughout the training management process when you do your training meetings and your quarterly

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“There are certain fundamentals that are still very applicable and valid today, and if you follow them, they will get you very far, very effectively. But when you skip steps, that’s when problems occur.”

training briefings, or annual training briefings for the National Guard and Reserve.

Commanders cannot just instinctively get a checklist, look at the tasks that come out in the orders, and start going “check, check, check,” in order to check all of the boxes. The real question for them to ask is why is that task really necessary? Is it applicable based on the environment I’m going to or my assigned mission?

We want commanders to take the ball and run and say, “I have all these published documents with things that I have to do; the question is what’s more important? How do I prioritize what’s going to enhance my mission performance and our readiness versus what’s going to detract from it?”

What I just said sounds simple, but it really isn’t. That’s the mission command environment we need to operate in.

What do you see as the greatest training challenge the Army faces today?

There are two. Number one is the time we have to recover from what these last 16 years of war have done to us. It is not a matter of whether we have the facilities or the resources. We do. It is a matter of having the time to put everybody back to the training levels required to win on the battlefield. That is our first challenge.

Number two is manning. As the Army shrank, it caused units to be manned at 95 percent. When you take out those who are not available, which averages 10 to 12 percent of a unit, and add the people who are transitioning out of the Army or the unit, on leave, or in schools, we are down to 80 percent of a unit formation that can actually go out and train. That number is too low to accomplish effective training.

The Army is transitioning from Army Force Generation (ARFORGEN) to the Sustainable Readiness

Model. Will it improve how we train and increase readiness?

It will make us stay more in the band of excellence versus falling off of cliffs. ARFORGEN was always a rotating door; you took a unit, put it together, trained it, packed it up, and deployed it, but when it came back you destroyed it.

Sustainable Readiness categorizes units according to what type of mission they are getting ready to undertake, but it also allows us to keep units more intact. With Sustainable Readiness, we don’t have a six-month reset window when units come home. It doesn’t exist.

ARFORGEN used to mean that units would come home and nothing happened for six months. People went to schools, went on leave, repaired equipment, and the unit was totally out of action. With Sustainable Readiness we will keep units at higher levels of readiness for sustained periods of time.

Can you describe the Army’s plan for Objective Training (Objective T)?

It will be implemented in the first quarter of 2018. What Objective T will do is give everyone an objective set of standards, so people are not using their own derived standards. We are making the criteria very specific for how you assess units; we will have standardized criteria versus subjective criteria.

We have gotten very loose over the years since 9/11. We allowed commanders to upgrade their assessments. Most people chose to upgrade because it made units look better. When we look back, they could have done a better job of meeting objective criteria in order to enhance unit readiness.

With the chief of staff’s focus on winning a decisive action fight, how does Army training need to shift?

We have moved to full-spectrum training rotations at the training centers at Fort Polk [Louisiana], Fort

Irwin [California], and [Hohenfels] Germany. We are training combined arms maneuver, which means we are doing things like offensive and defensive operations and wide-area security missions at the same time. This is how you fight in the broader context of incorporating the entire battlespace.

What advice would you give to commanders on improving training in their units?

They need to understand the training management process. Right now we have some brigade commanders and many battalion commanders and below who never had to plan training using the eight-step training model.

They grew up in a system where everything was scripted. When they went to Afghanistan and Iraq, everything was laid out for them. They just followed the plan, and all they did every year was go through the AFORGEN cycle. One unit did it one year then another unit did it the following year and on and on. That is how we lived.

So our leaders did not know how to run a training meeting, how to write a training schedule, or how to plan a combined arms live-fire exercise because we did not do those kinds of things. We need to focus on them now based on our emerging threats.

If there is one area in which we need to do more training, what is it?

It is combined arms maneuver. When you're dealing with a near-peer adversary who may be able to outshoot you and outsee you, you have to start figuring out how you can compensate for that.

For 16 years we have been occupying forward operating bases. Soldiers were able to land, get off a plane, walk to a building, go to a bed, turn on lights, and have heat.

We now need to train for an expeditionary fight. That means you have to be able to take care of yourself when what you have on your back is

all you have. We must shift to running brigade support areas, the big hunks of ground where sustainers fix tanks, conduct fueling operations, produce food, and all of these kinds of things. More importantly, we have to be able to displace our brigade support areas and command posts very frequently due to the threat.

How do you operate in an environment where there is a conventional, full-spectrum, and multidomain fight? The threat comes from the sea, the air, and on land. When you squeeze the radio handset and you can't talk, not because the battery is dead but because you are being jammed or the satellites are knocked out, how do you operate in a degraded, satellite-denied environment?

How do you get things to places when you have contested lines of communication, when the enemy can make sure you cannot fly in, you cannot drive in, you cannot ship in, and you cannot rail in? They control it all. So instead of that C-17 coming in with all of its cargo, it cannot get there—not without getting shot down. We haven't trained for that in a long time, but we are training for that now.

How are we incorporating technologies, such as simulators and apps, to increase training effectiveness?

I said we have the resources to meet our requirements, and we do, but we do not have the time to go out in the field and fumble during training, nor should we waste resources when it comes to ammunition, flying hours, and fuel. Simulators are enabling us to make sure Soldiers qualify before they go fly it, drive it, and shoot it in a gunnery live-fire setting.

As for apps, our young Soldiers today have grown up with apps and are very comfortable using them. We are finding we have the same problem that many people have with their personal phones. With so many apps, how do you know what they all are? How do you master them? So we need to reduce the number of

apps to the things that really help us win the fight.

What one tip would you give to a new company commander to best plan, manage, and conduct unit training?

The best tip is to follow the eight-step training model. Just like the military decisionmaking process lays out how you plan for an operation, the training model tells us how to get from square one to the after action review for a training event. If you follow those eight steps, they will get you from start to finish. It has worked well for years.

People get emotional when you use the word "basics" or the term "back to basics." I don't use the word "basics" anymore. I've gone back to the word "fundamentals." There are certain fundamentals that are still very applicable and valid today, and if you follow them, they will get you very far, very effectively. But when you skip steps, that's when problems occur.

The chief of staff wants us to improve our readiness. When we show up for a mission, people expect us to be able to accomplish our jobs. They expect a brigade to look like a brigade and employ its capabilities without having problems because one unit does something different than another. That gets back to our fundamentals.

So if you are a tank battalion, you've got to be able to fire gunnery tables and you've got to be able to kill the enemy by outshooting and outmaneuvering them. That's what our nation expects us to do.

Arpi Dilanian is a strategic analyst in the Army G-4's Logistics Initiatives Group. She holds a bachelor's degree from American University and a master's degree from Rensselaer Polytechnic Institute.

Matthew Howard is a strategic analyst in the Army G-4's Logistics Initiatives Group. He holds bachelor's and master's degrees from Georgetown University.



Logisticians and leaders walk down a railroad ramp used for loading cargo ships at the port of Batumi, Georgia, on April 26, 2016, during the Southern Sustainment Terrain Walk organized by the 21st Theater Sustainment Command. The tour showcased sustainment resources in Turkey, Georgia, Romania, Slovenia, and Italy. (Photo by Sgt. 1st Class Jacob McDonald)



Building Tomorrow's Leaders by Design

■ By Col. Todd A. Heussner

FEATURES

To prepare for complex and ambiguous environments, the Army must create ideal leaders, put the right people in the right places, change the curriculum paradigm, and transform the instructional environment.

It has been said many times that war is chaos and that a plan never survives the first shot. Yet we continue to train Soldiers and leaders that there is only one correct answer to a question on a test. We use test scores to certify that we are prepared to engage with and destroy our enemies. However, time and again, it is a single individual facing an uncertain situation or ambiguous environment who makes a decision that turns the tide of battle.

When we train to the specific, we are not training the skills required for success on the battlefield or at the strategic level. We must train for ambiguity by designing programs of instruction that prepare leaders for the uncertainty that we will face on the battlefields of the future.

In February 2011, Defense Secretary Robert M. Gates told United States Military Academy cadets, “When it comes to predicting the nature and location of our next military engagements, since Vietnam, our record has been perfect. We have never gotten it right.” If we do not know who we will fight, or even where we will fight, how can we be sure we are training the skills required to be successful on the battlefield of the future?

To guarantee our Army’s success in future conflicts, we must find a way to replicate in a training environment the uncertainty, complexity, and ambiguity of an actual area of operations. We must build on our strengths while identifying and addressing areas where we can improve our institutional and operational training.

A Solution

Given the uncertainty of the future and the reality that the world is becoming more unpredictable and dangerous, how do we prepare our leaders? We must evaluate past successes, reduce them to the most basic components, and then master the skills that enhance our chances of success.

The Logistics Leader Development Strategy describes some of the abilities the Army is looking for in leaders, such as being able to plan and

adaptively execute effective support, comfortably make decisions with imperfect information, and develop Soldiers to be adaptive.

When we start out on a mission, it is always helpful to begin with the end state in mind. Therefore we must define the traits, characteristics, and abilities we want in our leaders in greater detail.

What We Want

The term “entrepreneurial leader” succinctly describes the ideal leader. An entrepreneur is someone who exercises initiative while undertaking risk in order to produce a profit. While the Army does not produce a profit in the business sense, it measures value in trust, respect, reputation, and competence.

We Army logisticians must consider profit as providing effective and efficient support to our teammates in a way that would cause them to choose us as their supporters if they were given a choice. We must develop entrepreneurial leaders who can solve ambiguous problems through initiative and risk-taking.

We must tailor our military education system to be one that creates problem-solving skills rather than one that teaches Soldiers to pick the right answers on a multiple-choice test. We must teach and enable leaders to solve ill-defined problems that have more than one right answer or, at the very least, to choose the least detrimental outcome.

To achieve these things, the Army should follow these four steps:

- Design a strategy for creating the ideal leader by looking at past commonalities.
- Put the right people in the right places.
- Change the curriculum paradigm.
- Transform the instructional environment.

Strategy for the Ideal Leader

Ultimately, our training environment should produce leaders who can achieve operational success and secure

victory in future conflicts. I have read many times that the Army has been perfectly wrong in predicting the future when it comes to the next war. With this in mind, we are forced to identify the common denominators needed for success regardless of the time, place, or adversary.

When we study successful battles and campaigns, we discover that there are common themes displayed by all great leaders. These traits should be our guide as we lay out our strategy.

The Logistics Leader Development Strategy, the Army Leader Development Strategy, and the School of Advanced Military Studies website all describe the attributes we are looking for in ideal leaders. Common traits include adaptive, creative, agile, and innovative. These people are critical thinkers and complex problem solvers who are comfortable with ambiguity.

I would add to the list people who take risks, have the courage to challenge the status quo, are confident in their abilities, and are willing to accept input and modify their thinking. Once the ideal, or standard, is defined and established, we can develop a strategy in our institutional training that seeks to create and replicate this type of leader.

Right People in the Right Places

Once we build consensus, we must assign the right people to positions that will enable them to model the standard. Senior Army leaders must identify subordinates who display these characteristics and assign them to key positions.

In doing so, they will nourish and solidify an emboldened culture within our Army—one that builds capability and fosters success. Junior leaders, in turn, will adapt and model their behavior to follow in the footsteps of their mentors.

There is always a danger that we might not pick the right leaders as we start down the path. However, that is the nature of transformational leadership. It is resilient, but it takes time to implement. Consistency will de-

termine success or failure as we move forward.

Achieving effective transformation and consistency depends on correctly identifying leaders who embody the ideal and institutionalizing the process to establish a path to success. The pitfall is that, as a general rule, we pick those who are like us. If we are to be successful in transforming our training and our culture, we must pick leaders whose personalities may be different but, as a whole, complement one another's strengths.

Again, common traits are creativity and the ability to challenge the status quo and take risks. These leaders must also be confident in their abilities, be open enough to accept input from others, and possess the maturity and flexibility to change their minds when presented with divergent points of view.

Furthermore, they must be "microdevelopers" while resisting the temptation to be micromanagers. This consideration moves to the forefront as we transform into the leaner and more agile formations of Force 2025.

Once we have the correct leaders in place within our operational units, we must select leaders for our training institutions. These individuals must not only lead but also possess the ability to teach others how to do the same. They must be comfortable teaching in an environment with little structure and be able to impress upon their students that ambiguity can be assumed, every problem has multiple solutions, and each course of action has associated risks.

Finally, we must select instructors who are committed to excellence and who exercise initiative in an attempt to continually challenge their students and improve their institutions. This requires instructors and administrators who are comfortable with outcomes-based action learning. This is a radical departure from our institutional training model and from the way we conduct home-station training.

We must reinvent our institutional training model along with the way we train in our units. Our new model

must be one that recognizes and promotes entrepreneurial leaders.

The Curriculum Paradigm

Retired Gen. Martin E. Dempsey, former chairman of the Joint Chiefs of Staff, framed the present challenge best in his June 2016 interview with *Foreign Affairs* magazine. He stated, "It's the most dangerous period in my lifetime. In my 41 years of military experience, we often had the opportunity to focus on one security threat or another ... now we've got lots of things cropping up at the same time. We have multiple challenges competing for finite resources—and grotesque uncertainty with regard to the military budget."

Our current training model seeks to produce an end state characterized by predictability and certainty. Using this model, we are setting expectations that cannot be met in combat and forcing our leaders to quickly adjust to realities on the battlefield that they were not trained to face.

While our training has provided us with a foundation of technical competence, we have relied on our ability to identify leaders who have the traits needed for success in combat rather than developing them by design in our institutional and organizational training. If we introduce students and leaders to ambiguity, complexity, and uncertainty earlier and reinforce it in our operational units, we will make great strides in developing the leaders we need to carry us into the future.

After we define the characteristics and skills we want in our leaders, we must develop a curriculum that produces results that guarantee success on the battlefield.

My education, training, and experience has shown me that leaders always excel when they take initiative, develop creative solutions to unanticipated problems, take calculated risks, are aggressive and innovative, and have a genuine interest in people.

My professional education did not develop these characteristics and abilities. We learned doctrine and then were given multiple-choice tests to see



Second Lt. Dustin Peterson helps 2nd Lt. Dennis Price prepare for a briefing during the final exercise of the Ordnance Basic Officer Leader Course at the Army Logistics University on Dec. 13, 2016, at Fort Lee, Virginia. (Photo by Julianne Cochran)

if we could pick the one right answer.

It is absolutely important that we develop a solid professional understanding of doctrine, organization, training, materiel, leadership and education, personnel and facilities as a fundamental foundation, but we must then force our leaders to use that knowledge to solve ambiguous and ill-defined problems in a creative way.

There are no easy answers on a messy battlefield, and we must prepare our leaders to face uncertainty by intentionally placing them in uncomfortable situations before they arrive on the battlefield. Moving away from a multiple-choice test to ill-defined problems with messy solutions requires a shift in our curriculum and, more importantly, a shift in who we select to teach our future leaders.

The end of the wars in Iraq and Afghanistan provides us with the opportunity to refocus our efforts and place some emphasis on rebuilding the Training and Doctrine Command by sending our most capable leaders to teach, coach, and mentor the future of our Army.

If we are to cement our future as the best trained, most capable army on the face of the earth, we can afford nothing less. Once we select our best leaders, we have to secure their futures by providing them the very best follow-on assignments and opportunities.

Nearly everything we do in our training and in our organizations is designed to reduce or eliminate chaos and ambiguity. We develop training with checklists, known answers, and desired outcomes because it is easy to evaluate. We take a bubble sheet, jam it through a reader, and out comes a grade. If only it were that easy on the battlefield.

Our experience in training for deployment has also taught us to follow an established path as we execute required predeployment training. This has negatively affected our ability to continue to develop creative solutions to emerging problems.

Our training must be tailored to replicate the conditions our leaders will face on the battlefield. We must trade schedules and predictability for

chaos and ambiguity.

If we are going to teach leaders to be comfortable in chaos and ambiguity, we should pick instructors who have demonstrated an ability to succeed in that type of environment so they can train our future leaders to succeed. Fortunately, we have a large pool of candidates who have been trained in combat and have demonstrated an ability to succeed in just such an environment.

The Instructional Environment

Once we have decided what we want to produce and have picked the right people to develop our product, we have to create a training environment that will produce leaders who will lead us into the future. That environment must encourage creativity and innovation.

We have to recognize and reward those who are comfortable and capable of operating in an ill-defined and ambiguous environment. We must work to place students in situations where they are required to apply foundational knowledge to ambiguous and

ill-defined problems and arrive at creative solutions.

Our current training model does a great job of providing foundational knowledge. Now we must take it to the next level by forcing students to use the information to synthesize solutions to unanticipated problems when the outcome is not known or predetermined.

Producing leaders at the institutional level will have limited impact if we do not follow it up by reinforcing the training at the unit level once leaders arrive in operational Army units. Again, in units, we work to reduce chaos, ambiguity, and uncertainty. We are working against ourselves in a vain attempt to improve performance.

We must work to teach the skills required to succeed in combat by encouraging leaders and Soldiers to thrive in chaos, uncertainty, and ambiguity. Our leaders in the field must be comfortable with risk and underwrite mistakes.

Combat is a series of events that are uncontrolled, unmanaged, and unpredictable. We must create these same opportunities in garrison and in our training. This flies in the face of all that we have been taught throughout our military careers.

We must teach all of our Soldiers to take initiative, exercise judgment, and take calculated risks while they are under stress. We train with predictability and certainty and then wonder why we have issues with resilience. If we want Soldiers who are strong, confident, and comfortable on the battlefield, we have to train them for the rigors of combat before they arrive on the battlefield.

The 43rd Sustainment Brigade

The 43rd Sustainment Brigade deployed in February 2013 as the headquarters of the U.S. Central Command Materiel Recovery Element (CMRE). The execution of the CMRE mission was proof that training at home station as you operate in war is the best preparation a leader can provide for a unit.

This nonstandard mission was the

epitome of uncertainty, complexity, and ambiguity. The problems were complex, were unanticipated, and required creativity to solve; there was never one right answer.

This was the perfect opportunity to validate whether the unit's training prepared it to operate effectively in a challenging environment, void of any doctrine, tactics, techniques, procedures, and established operational guidelines. The unit's Soldiers, non-commissioned officers, and officers executed the mission flawlessly, and they made it look easy.

While at Fort Carson, Colorado, the 43rd Sustainment Brigade established a sustainment operations center that received, processed, resourced, and supervised the execution of all sustainment missions at Fort Carson and in support of a disaster relief operation when the Waldo Canyon fire consumed parts of Colorado Springs.

While the unit worked to reduce no-notice missions, it always responded when units called for support. The Soldiers learned agility, flexibility, and adaptability. They executed daily battle update briefings and weekly support operations synchronization meetings, and they managed sustainment across Fort Carson on a daily basis.

Because of this preparation, the brigade's Soldiers easily and effortlessly transitioned into the CMRE mission and were never stressed as they executed their mission in support of retrograde operations. They trained on a daily basis for just such a mission while at Fort Carson.

At Fort Carson, the brigade established "big idea groups" in which Soldiers, noncommissioned officers, and officers tackled big Army problems like budget, recruiting, training, and property accountability. These are complex problems that have no right answer, and in some cases Soldiers were forced to pick the best of the bad options. Again, this prepared them to attack complex and ambiguous problems with confidence since they had done it routinely at home.

The brigade turned daily sustainment missions at home station into

deliberate combat patrols. Rather than just delivering fuel from the motor pool to a supported unit's motor pool as an administrative move, the brigade developed concepts of operations, resourced, rehearsed, and executed deliberate multiechelon, combined arms operations that included maneuver, aviation, engineers, and military police.

Once again, when called upon to execute similar operations in Afghanistan, the Soldiers executed without missing a beat.

As logisticians, we have the opportunity to perform our wartime missions daily in a garrison environment. Setting up systems and processes at home station that replicate combat operations makes the transition to combat uneventful for our Soldiers. We simply change the location to another theater and execute established procedures in a new environment.

This current period of transition is an exciting opportunity to transform our training, education, and experience. We must ensure that we identify the skills we want in our leaders and develop training that encourages, nurtures, and rewards with opportunities those who display desired skills.

If we are to be successful in our transformation, we absolutely must select leaders who embody the traits and characteristics we desire in our subordinates. Once we have the right training to produce necessary skills, the right leaders to grow those skills, and the right organizational construct to reinforce them, we will deliberately produce the leaders of the future who will continue to lead us to victory.

Col. Todd A. Heussner is the executive officer to the deputy commanding general of the Army Materiel Command. He holds a bachelor's degree in political science from Stetson University and master's degrees from the Florida Institute of Technology and the Army War College. He is a graduate of Command and General Staff College.



A chaplain's assistant with the 21st Theater Sustainment Command trains at the 7th Army Joint Multinational Training Command's Medical Simulation Training Center in Grafenwoehr, Germany, on April 20, 2016. (Photo by Gertrud Zach)



Tactical-Level Sustainment Training

■ By Brig. Gen. Patrick E. Matlock

FEATURES

The director of training for the Army G-3/5/7 lays out five training challenges to make sustainment units better.

The Army and the joint force excel in logistics and sustainment. Our capabilities in this area, and the resources provided to achieve them, have long been the envy of both our allies and our enemies.

In his book *The Iraq War*, John Keegan describes U.S. logistics support during Operation Iraqi Freedom. He writes that “re-supply, quite as much as firepower or air support, was to be the secret of the coalition’s overwhelming of Saddam’s forces.”

Keegan relays this description from British observers who traveled with the 3rd Infantry Division and the I Marine Expeditionary Force: “Suddenly out of the dust appeared every logistics vehicle you can imagine, tankers, water bowsers, ammunition trucks, mobile repair work shops, ration trucks. As they stopped, crews began connecting up hoses, hoisting pallets, throwing off crates. The contents were seized by the combat troops and disappeared inside the fighting vehicles as fast as they could be stowed. Sooner than you could imagine the combat echelon was re-supplied and ready to move forward again.”

An enduring readiness objective of Army commanders should be to ensure all Army formations are prepared to continue this tradition of tactical sustainment excellence. This article focuses on the hardest portion of sustainment: training tactical readiness.

Tactical-level sustainment training in Army formations is, from one perspective, a constant activity embedded in every aspect of garrison operations and field training. All Army units conduct internal sustainment operations, and sustainment units provide external sustainment to their supported formations on a daily basis. From another perspective, sustainment training conducted under the full range of combat conditions is some of the most rarely exercised training in our portfolio.

I present five challenges to maneuver and support commanders for tactical-

level sustainment training that will prepare Soldiers for the hardest combat conditions. By meeting these challenges, commanders can improve their units and tactical-level sustainment readiness.

Train Your Concept of Support

Sustainment unit readiness is the ability to execute the concept of support, which in turn drives the detailed training objectives for performance-oriented training. Like readiness in other units, sustainment unit readiness is doctrinally based and driven by the unit’s mission-essential task list. But unlike maneuver units, which have echelon-specific doctrine loaded with details on how to fight, sustainment doctrine tends to be heavy on the “what to do” but not the “how to do it.”

Successful sustainment training begins by developing detailed concepts of support for each sustainment echelon. At a minimum, each maneuver or support organization should have a detailed written concept of support for offensive, defensive, and wide-area security operations. More than standard operating procedures, these concepts of support should serve as the doctrinal template for sustainment operations.

The first draft will be a graphic depiction of the concept of support and its supporting schemes, including the scheme of maintenance, scheme of supply, scheme of distribution, scheme of medical evacuation, et cetera. Turning these pictures into written concepts with supporting schemes is the next step toward building detailed training objectives.

Critical phrases in the written concept of support, such as “establishes a support area,” “echelons critical supplies forward,” “provides bulk class III [petroleum, oils, and lubricants] resupply en route,” “establishes a maintenance collection point,” and “conducts ground medical evacuation,” become specific training objectives in the unit training plan.

Using the concept of support to develop training objectives allows

higher level sustainment commanders, their support operations officers, and small-unit sustainment leaders to share a common vision of how support will happen. It also ensures seamless connections among units' training objectives, concepts of support, and assessments of mission-essential task lists.

Train Tactical Distribution

Close to a decade and a half of war and longstanding norms in garrison operations have made the Army comfortable with supply point distribution at the expense of the more difficult unit and throughput tactical distribution. Supply point distribution will indeed remain one feature of any concept of support, but the real test for sustainment units will be when the operating tempo or dispersion of operations demands unit or throughput distribution. Sustainment units should train for this most demanding level of effort.

The central challenge of unit and throughput distribution is twofold. First, these distribution methods require unit task organization and the organization of supplies in support areas. Second, these methods require close synchronization between maneuver and sustainment forces and precise execution of the movement and protection of sustainment units. Execution of these methods in live and constructive training is the only way to truly meet these training objectives.

Train Self-Contained Teams

Building and training small self-contained sustainment units led by junior leaders should be the focus of live field training. Current Army force structure both helps and hinders this effort. At the division, brigade, and battalion levels, we see sustainment brigades, brigade support battalions, and forward support companies organized in an inherently multifunctional manner. However, at the team, squad, section, and platoon levels, sustainment units operate most often in an ad hoc manner.

For efficiency's sake, junior sustainment leaders often task organize individuals and individual vehicles instead of teams and squads. While this may make the most of specific sustainment skills in terms of troops to tasks, it often separates Soldiers from their assigned leaders. In a static support environment this may be acceptable, but on a dynamic battlefield, where knowledge of one's own Soldiers is critical, this can be fatal.

opment sessions to formal training using the military decisionmaking process. A highly underrated technique for command and staff training is the table top exercise (TTX).

TTXs can be as simple as using a whiteboard to fully depicted maps with unit and vehicle symbols and graphic control measures. TTXs can dive deep into a specific challenge (for example, providing class III to a brigade formation during an

Regardless of method, the best command and staff training exposes leaders to a very wide variety of sustainment tasks and approaches.

Train With Assigned Weapons

No one should see a sustainment unit as an additional maneuver or security element. However, every sustainment unit should still be absolutely capable of using its assigned weapons to defend a support area and protect itself while moving in support of missions.

Sustainment units' inherent combat power is critical to sustaining the combat power of maneuver formations. To meet this challenge, sustainment units must consistently train to Army standards with their organic crew-served and individual weapons.

Train Staffs to Improvise

Sustainment commanders understand all too well that actual combat operations have an unlimited variety of effective concepts of support. This is why "improvisation" is explicitly included as a principle of sustainment in doctrine. Staff exercises are critical to exposing sustainment leaders and staffs to variety and help build the critical-thinking skills necessary to design effective concepts of support under diverse combat conditions.

There are several ways to accomplish this training, ranging from old-fashioned professional devel-

extended approach march) or comprehensive (such as building a concept of support for a division area defense).

Regardless of method, the best command and staff training exposes leaders to a very wide variety of sustainment tasks and approaches. It encourages both the rapid development of broad concepts of support and a detailed understanding of the specific schemes necessary to meet these support concepts.

These five challenges are presented to make our already world-class tactical sustainment units even better. It has been my personal and professional privilege to serve with, lead, and receive support from sustainment units at every echelon from company trains to a theater sustainment command. Only the sustainment units in the U.S. Army would even dream of meeting these challenges. That's how good you already are.

Brig. Gen. Patrick E. Matlock is the director of training for the Army G-3/5/7. He previously served as the deputy commanding general for support for the 25th Infantry Division. He is a 1988 graduate of the United States Military Academy.

A photograph showing four military lieutenants in camouflage uniforms. They are gathered around a table, looking at documents. One woman, Kaitlin Lusk, is in the foreground, looking down at a document. Behind her are three men: Steven Nowlin, Allise Berry, and Jake Thomas. They are in a warehouse-like setting with metal shelving and a door in the background. The text 'Turning Logistics Lieutenants Into Multifunctional Leaders' is overlaid on the image.

Turning Logistics Lieutenants Into Multifunctional Leaders

■ By Capt. Alan M. Strange and Capt. Samantha L. Smay

Second Lt. Kaitlin Lusk reviews a list of equipment that needs maintenance while 2nd Lts. Steven Nowlin, Allise Berry, Jake Thomas, and Olivia Halsne prepare to take needed information to maintenance and tactical operations center elements during the final exercise of the Ordnance Basic Officer Leader Course on Dec. 13, 2016, at Fort Lee, Virginia. (Photo by Julianne Cochran)

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SECURITY
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807-19-1 (918)
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807-11-1 (918)

FMU
#18 H-401 (PBBP)
#71 807-7-2 (918, B) HB
#51 807-15-1 (918, E) HB
#84 807-11-1 (918, B) HB
#15 H-31 (M1097)
#53 807-2-1 (918, E)
#73 807-9-1 (918, E)
#96 807-25-1 (918, E)
#88 807-13-1 (918, E)

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Timeline

- 0830 In-brief
↳ controller
- 0930 Combat power
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- 1500 CUB
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FEATURES

No matter what type of unit logistics lieutenants are first assigned to, the recently updated basic officer leader courses at Fort Lee, Virginia, will prepare them for the challenge.

Signing into a new unit as a second lieutenant is a challenging and exciting time for a leader. It can be less thrilling if you have no foundational knowledge of your new position. Unfortunately, this has been the case for many lieutenants who have completed basic officer leader courses (BOLCs) at Fort Lee, Virginia.

According to its chairman, the Basic Officer Leader Department (BOLD) trains about 1,900 lieutenants every year. It focuses on preparing junior officers for their first assignments.

Before the implementation of BOLC Common Logistics (Common Log) at the Army Logistics University (ALU), lieutenants were not prepared for the realities that they experienced during their first four years in the Army, which is when many junior officers work outside of their basic branches.

To overcome the first assignment hurdle faced by new quartermaster (QM), ordnance (OD), and transportation (TC) lieutenants, the commanding general of the Combined Arms Support Command directed that each logistics BOLC teach the basics of all logistics branches. Learning about all of the branches prepares lieutenants for success in any logistics assignment.

BOLC Common Core

BOLC classes prepare junior officers to adapt to any leadership positions they will hold. The first week encompasses oral communication skills, a sustainment overview, convoy operations, ethics, and other professional topics.

Following the initial common core week, the students enter the three-week BOLD tactics segment of the course. Once the lieutenants finish BOLD tactics, they continue with common core lessons on written communications, cultural awareness, and other officership topics. Students are also introduced to Blue Force Tracking, the Global Combat Support System–Army, and the Defense Advanced GPS Receiver.

Cross-Functional Training

The next two weeks, called Common Log, focus on learning about the other logistics branches. OD and TC BOLCs include a week on Common Log QM, which focuses on property accountability and culminates with a practical exercise on conducting a platoon-level inventory of general mechanic toolboxes, camouflage nets, radio antennas, humvees, and generator sets. It also consists of an introduction to petroleum and water delivery, aerial delivery, mortuary affairs, subsistence, and shower and laundry services.

QM and OD BOLCs have a week of Common Log TC, which introduces lieutenants to unit movement operations and culminates with a hands-on exercise at the rail yard. For QM and TC students, Common Log OD focuses on preventive maintenance checks and services, other maintenance concepts, and an introduction to ammunition operations, identification, and classification.

Functional Training

At the end of Common Log, all of the branches dive deep into their own functional skills. OD students have a week of instruction on maintenance, a week on the use of Global Combat Support System–Army in maintenance operations, a week on ammunition, and a week on ammunition supply point site selection.

The students also have a two-week exercise known as Operation Decisive Action and two weeks of additional officership classes and graduation preparation.

QM BOLC has instruction on all QM functions and concludes with an end-of-course capstone exercise in which each lieutenant acts as a platoon leader for a forward support company in a decisive action training environment. The lieutenants have to support their assigned units for a three-phased operation.

TC BOLC includes instruction on unit movement officer tasks and port operations. The students go to Fort Eustis, Virginia, for an Army boat



Basic officer leader course students conduct a ruck march at Fort Lee, Virginia. (Photo by 2nd Lt. Austin Holloway)

tour. The course caps off its functional training by testing students in a comprehensive field exercise called Operation Overland.

BOLD Tactics

To streamline training for QM, OD, and TC lieutenants, BOLD discontinued BOLC II courses at Fort Sill, Oklahoma, and Fort Benning, Georgia, in early 2010. The department made BOLD tactics three weeks long and moved unit-specific platoon leader tasks to the lieutenants' first assigned unit. BOLD tactics rotations usually include one BOLC class from each branch (QM, OD, and TC).

The first week of BOLD tactics focuses on weapons qualification, grenade familiarization, and land navigation. The second week focuses on warrior tasks and battle drills such as the virtual convoy trainer, radio operations, troop leading procedures

in operations planning, evaluation and evacuation of a casualty, and other tasks.

The final week includes a comprehensive field training exercise with multiple logistics operations, such as route reconnaissance, site selection for helicopter landing zones and reverse osmosis water purification units, and sling-load and medical evacuation operations.

ALU instructors have deliberately focused on revamping BOLD tactics to mirror the National Training Center's (NTC's) decisive action training environment scenarios that employ the field trains and combat trains concepts. The addition of two former NTC observer-coach/trainers to BOLD has significantly enhanced the instructors' ability to synchronize training with what lieutenants will encounter at the combat training centers.

Employing NTC Lessons Learned

At NTC, most lieutenants lack proficiency in applying troop leading procedures in decisive action. They lack the tactical intuition necessary to solve complex problems while operating in field trains, combat trains, or tactical convoy operations. Distribution platoon leaders struggle to manage their time as they react to ever-changing requirements.

In order to take care of Soldiers, manage time effectively, plan through contingencies, and rehearse battle drills, leaders must anticipate requirements. In order to anticipate, they have to understand how the supply system and logistics processes are connected.

In order to extend the reach of support and enable the lethality of the warfighter, lieutenants have to understand the operation that they are supporting, the purpose behind



Second Lt. Aaron Jones shows 2nd Lt. Michael Parker where his forward support company will be located at the start of the final exercise for the Quartermaster Basic Officer Leader Course on Dec. 13, 2016, at Fort Lee, Virginia. Second Lts. Franklion Fox and Cody Greenwald also represent companies while their instructor, Capt. Alan Strange, observes the action. (Photo by Julianne Cochran)



Second Lt. Cody Greenwald, a Quartermaster Basic Officer Leader Course student, tells Capt. Alan Strange what echelon of support his unit is located in during the final exercise of the course on Dec. 13, 2016, at the Army Logistics University at Fort Lee, Virginia. (Photo by Julianne Cochran)

the support operations, and the sustainment nodes at each echelon. The more echelons that are used, the more synchronization is required.

Today's complex environments require lieutenants who know how everything is connected and understand how to anticipate and build resupply packages, how to analyze maintenance trends in order to keep equipment in the fight, and how best to distribute supplies to the warfighter. We need to start building and developing these leaders at BOLC.

Building Leaders

During the 16-week course, BOLC students engage in multiple practical exercises to practice critical thinking and develop as adaptive leaders. For the blocks of instruc-

tion on noncommissioned officer evaluation reports and counseling, the class pairs with a Senior Leader Course class to conduct an initial counseling between a platoon leader and platoon sergeant. Throughout the course, the students lead rigorous physical training, including ruck marches and a culminating 12-mile event.

BOLD has made many progressive strides to maximize the effectiveness of its resources while creating an environment to develop creative, critically thinking, and adaptive leaders that can accomplish any task. An OD lieutenant, for example, may not always be a maintenance platoon leader or maintenance control officer; he or she might be a distribution platoon leader or part of a

TC or QM company.

Our Army does not need lieutenants who are experienced in only one branch. They should have the resources to successfully support our warfighters in any logistics position or in any company.

Capt. Alan M. Strange is a BOLC instructor at ALU at Fort Lee, Virginia. He holds a bachelor's degree from the University of Washington. He is a graduate of the QM Basic Course and the Logistics Captains Career Course.

Capt. Samantha L. Smay is a BOLC instructor at ALU. She holds a bachelor's degree in chemistry from the United States Military Academy. She is a graduate of the OD Basic Course and the Logistics Captains Career Course.



Soldiers from Headquarters and Headquarters Company, 1034th Combat Sustainment Support Battalion, 734th Regional Support Group, Iowa Army National Guard, set up an individual universal improved combat shelter in a training area at the Camp Dodge Joint Maneuver Training Center. (Photo by Spc. Tawny Schmit)



The Sustainment Training Center:

The Army National Guard's Premiere
Sustainment Training Capability

■ By Lt. Col. David E. Babb

FEATURES

The Sustainment Training Center provides tailored, integrated, and scalable sustainment training that aligns with each commander's specific priorities.

The Army National Guard (ARNG) Sustainment Training Center (STC) at Camp Dodge, Iowa, serves as the ARNG's primary training center for sustainment units and provides collective technical and tactical training and evaluations. Field maintenance, multifunctional logistics, and medical training are focused at the section, platoon, and company levels.

The STC, together with Mission Training Complex–Dodge (MTC–Dodge), provides relevant and realistic training that increases individual and collective proficiencies from the tactical level to echelons above brigade. This multiechelon training environment incorporates downtrace organizations, including distribution companies, field maintenance companies, medical companies, and forward support companies (FSCs).

STC Capabilities

The STC campus is on approximately 4 acres and includes 48 heated maintenance bays with heavy overhead lift capability and more than 100,000 square feet of technical maintenance and multifunctional logistics training space. STC subject matter experts (SMEs) evaluate Soldiers according to standard training and evaluation outlines and applicable combined arms training strategies found on the Army Training Network website.

The STC is the leader in logistics collective training, and its staff takes pride in offering relevant and realistic training in a scalable operational environment. STC instructors possess technical and tactical experience that helps them to train and mentor logisticians for future operations.

STC trainers use the latest information from the Center for Army Lessons Learned. The center follows the "train as you fight" principle to establish a solid foundation for Soldiers.

All Soldiers at the STC train with current theater end items and components of the end items and operate

within the Global Combat Support System–Army (GCSS–Army) environment. Training at the STC uses the latest generation of theater-specific equipment, current doctrine, and logistics enabling systems.

The center also includes a live supply support activity that supports current Army force structure.

Training Weeks

The training focus during week one begins with the unit's arrival and the completion of reception, staging, onward movement, and integration requirements.

Units receive GCSS–Army training, conduct property accountability and inventories, learn deliberate risk management procedures, and complete equipment refresher training as necessary. Soldiers conduct their technical training in a tactical environment to ensure their skills are geared toward the unified land operations concept.

At the end of the first week, unit leaders receive an operation order for the culminating training event for week two, which is a three-day field training exercise. This exercise provides trainers and unit leaders an opportunity to evaluate their Soldiers and look for areas that need improvement.

During the second week, training is focused on collective tasks set forth by the commander's mission-essential task list (METL) and key collective tasks. Training aids and devices augment, improve, and enhance the training and facilitate learning in current doctrine, theory, diagnostics, and troubleshooting techniques.

Multifunctional Training

Soldiers in these military occupational specialties (MOSs) are the primary audience for STC multifunctional logistics training:

- Motor transport operator (MOS 88M).
- Ammunition specialist (MOS 89B).



Soldiers from the 700th Brigade Support Battalion, Oklahoma Army National Guard, latch supplies onto a hovering UH-60 Black Hawk helicopter during their annual training at the Sustainment Training Center at Camp Dodge, Iowa, in April 2015. (Photo by Spc. Elijah Morlett)

- Automated logistical specialist (MOS 92A).
- Petroleum supply specialist (MOS 92F).
- Water treatment specialist (MOS 92W).

Motor transport operators become proficient in convoy operations on varied terrain and roads while conducting mounted land navigation. They learn how to manage their loads (both cargo and personnel) to ensure safety at all times. STC SMEs integrate the basics of conducting preventive maintenance checks and services and vehicle inventories with “truck rodeo” training to enforce the always-ready approach.

The STC ensures ammunition specialists are trained on storing and handling ammunition, explosives, and their associated components to ensure safety. The STC trains these Soldiers on receiving, storing, and is-

suage conventional munitions, guided missiles, large rockets, explosives, and other ammunition-related items.

Automated logistical specialists participate in field training and also have opportunities for training at the STC’s live supply support activity. They process requests, conduct turn-ins and inventories, perform prescribed load list and shop stock list duties, prepare and annotate shipping documents, conduct operations using radio frequency identification technology, operate the very small-aperture terminal, and operate materials handling equipment.

Petroleum supply specialists gain experience in petroleum distribution, handling, and storage through specific task training. During their annual training period, the 92Fs account for petroleum, operate petroleum distribution equipment, conduct refuel on the move operations, take emergency precautions to prevent accidents,

and possibly conduct air refueling operations.

Water treatment specialists train on the fundamentals of water purification using multiple purification platforms, including the lightweight water purifier and the tactical water purification system. They operate bulk water distribution using load handling system compatible water tank racks (hippos) during logistics package convoy missions.

Maintenance Company Training

The STC trains personnel from both support maintenance companies and field maintenance companies. Soldiers receive hands-on training that enhances the individual technical skills and leadership skills necessary to master the unit’s collective training requirements, regardless of whether the unit is within a brigade combat team or a sustainment brigade.

The commander sets training priorities by identifying unit goals and objectives upon arrival at the center. The STC staff orients the training to support the maintenance-related METL. The STC staff trains all maintenance platoons, sections, and teams in the field maintenance arena, regardless of configuration or specialty.

The STC Maintenance Control Section takes over the unit's entire maintenance activity from the first day the advance party arrives. This section is responsible for managing, leading, and directing all maintenance activities while using GCSS-Army.

Maintenance platoons quickly recognize the maintenance shop as a place to refine the individual tasks maintenance Soldiers require. Training is accomplished through a hands-on concept with over-the-shoulder training by the STC staff or in a classroom environment, whichever

is more appropriate to the task being taught to the Soldiers.

Medical Company Training

The STC staff members work with commanders to personalize medical training based on their assessments of the unit. During the first training week, the focus is on individual tasks for each MOS. While health care specialists (MOS 68W) go through the 48-hour sustainment training at Camp Dodge's Medical Simulation Training Center, the remaining medical personnel perform individual tasks at a civilian medical treatment facility.

Medical unit leaders participate in staff training and a military decision-making process (MDMP) seminar to learn their roles as leaders. During the second training week, the entire medical company reunites at Camp Dodge and functions in a fixed role 2 medical treatment facility, complete with equipment provided by the

STC. The second week's focus is the commander's METL and key collective tasks.

The training evaluation encompasses the spectrum of point-of-injury and role 1 tactical combat casualty care through evacuation and stabilization at the role 2 medical treatment facility. Soldiers perform hands-on medical training using very realistic mannequins that react to the medical treatment being performed. SMEs at the STC evaluate Soldiers according to the training and evaluation outlines and applicable combined arms training strategies found on the Army Training Network.

FSC Training

While training at the STC, FSC maintenance platoons and distribution platoons encounter a realistic training environment and receive the same high level of training provided to distribution and field maintenance companies.



Iowa National Guard Soldiers help position a humvee onto a flatrack as then Secretary of the Army Eric Fanning maneuvers the vehicle using a mine-resistant ambush-protected wrecker. Fanning visited the Sustainment Training Center at the Camp Dodge Joint Maneuver Training Center in Johnston, Iowa, on July 14, 2016. (Photo by Master Sgt. Duff E. McFadden)

The unit commander establishes goals and objectives 210 days prior to arrival, and the STC staff members serve as enablers, assisting the unit in recognizing key tasks and developing a glide path to accomplish those objectives. The FSC focuses on training to standard while supporting a notional maneuver commander instead of just meeting mission support requirements.

Mission Command Training

The STC's partnership with the ARNG Mission Command Training Support Program (MCTSP), through MTC-Dodge, provides mission command training and simulation exercises focused on the MDMP for staffs at the battalion level and above. This is a unique multiechelon, integrated sustainment training environment not found at any other location.

Battalion and above staff training through the MCTSP instructs commanders and their staffs in the MDMP and operation order production. The training culminates in a digital command post exercise focused on operations across the range of intensity, including offense, defense, and stability operations.

The program accommodates all levels of staff proficiency, from a newly organized staff to one that has experienced operators. MTC-Dodge can conduct digital exercises employing various Army Battle Command Systems. The sustainment simulation exercise can be run on a variety of drivers, including the Entity Resolution Federation driver, the Joint Conflict and Tactical Simulation, and the Joint Deployment Logistics Model.

Units training at the STC focus on developing the concept of support and its role in the operations process. They also produce a logistics common operational picture.

Individual Diagnostic Training

The STC currently hosts 15 individual training opportunities for full-time ARNG maintenance tech-



Capt. Douglas Castleberry sets up his personal area inside a universal improved combat shelter at the Camp Dodge Joint Maneuver Training Center. (Photo by Spc. Tawny Schmit)

nicians. These courses involve the M1 Abrams family of vehicles, the M2A2 and M2A3 Bradley fighting vehicles, the tactical water purification system, the M88A1 and M88A2 recovery vehicles, and the rough-terrain cargo handler.

The STC also has four-wheel vehicle training that includes courses on maintenance support device diagnostics, electrical troubleshooting and diagnostics, hydraulic and fuel systems, and brakes and axles. Technicians who work at various state maintenance and equipment training sites, unit training equipment sites, combined support maintenance sites, and field maintenance shops are eligible to attend these courses at the STC.

None of the above courses are MOS qualifying or MOS producing, but all technician instruction includes the most current repair procedures using approved manuals as guides.

The STC's collective and individual training focuses on leadership, logistics enablers, diagnostics and troubleshooting, and medical skills within a

live GCSS-Army environment. This unique training center provides the best place for sustainment commanders to objectively assess Soldiers and unit readiness. Building sustainment readiness for the total force is the STC's only priority.

Contact STC Operations at (515) 727-3522 and STC Technician Training at (515) 727-3579 for further information on how to schedule a unit for these exceptional training opportunities. For questions about the MCTSP and MTC-Dodge, contact MTC-Dodge Operations at (515) 331-5720/5760.

Lt. Col. David E. Babb is the commander of the ARNG STC. He has a bachelor's degree in psychology from the University of South Florida and a master's degree in biblical studies from Dallas Theological Seminary. He is a graduate of the Army Command and General Staff College, the resident Operations Research Systems Analysis Military Applications Course, and the Enhanced Defense Financial Management Training course.



Spc. Moises Leon, 87th Combat Sustainment Support Battalion, 3rd Infantry Division Sustainment Brigade, guards his fighting position on Dec. 7, 2016, in a training area at Fort Stewart, Georgia. (Photo by Spc. Jamie Beale)



Training Needs to Change When Conditions Change:

An Interview With Retired
Lt. Gen. Chris Christianson

■ By Arpi Dilanian and Matthew Howard

FEATURES

After training thousands of sustainers during his 37-year career, a retired logistics general discusses training management and logistics transformation.

Retired Lt. Gen. Claude V. “Chris” Christianson was the top logistics planner for the Army and then for the Joint staff during the early years of the wars in Iraq and Afghanistan. He was an advocate for logistics transformation, and his policies greatly contributed to the success of logisticians in both wars. During his 37-year career, he trained thousands of sustainers. We sat down with him to find out what trainers can do better.

What do you think is the most important aspect of training management?

Without doubt, the most critical element of an effective training management system is feedback. Too often we do not take the time after training events to go back and talk about what we thought was going to happen, what actually happened, and then discuss the differences between the two. That process is important because we rarely do exactly what we planned.

For example, we were planning to execute A, B, and C during a training event. When we executed the training event, we did some of A, none of B, a little bit of C, and some other tasks that weren’t planned. Why those differences occurred is as important, and possibly more important, than what actually happened.

I would always try to hold training meetings once a week. We scheduled them right after our prime training day or event. For example, if the majority of training was conducted on Thursday, we would hold our training management meetings on Friday.

The first item on the agenda was to review what happened the day before. We conducted the review not in the manner of a graded report card, but by having the junior noncommissioned officers (NCOs) and leaders talk about what they had planned, what actually happened, and why there were differences.

Out of those round table discussions, particularly at the battalion

level, came a wealth of knowledge that directly impacted our training program over the next several weeks. We changed our training based on what actually happened on the ground. I think that process is very important.

The Army has been very good for many years in using the after action review process, particularly at the National Training Center [at Fort Irwin, California] and the Joint Readiness Training Center [at Fort Polk, Louisiana], to help leaders understand what happened on the battlefield and why. We should use this same approach all the time in our training management process.

How did you develop your company commanders and NCOs to manage training?

The most important thing we tried to do was to make sure our junior NCOs and leaders took ownership of the process itself. I tried to give them the freedom to do the things they thought were right and made sure through feedback and support that they were held accountable. But I also gave them the freedom to try things that were different than what we had done before.

Too often, I would go to motor stables on Fridays and see the same thing being done week after week. That wasn’t training. We needed to be much better than that, so I encouraged creativity.

If we were to look at physical fitness as another training program example, it would not seem to make a lot of sense to go out every day and perform the same sets of exercises. However, I have seen a lot of that during my career. There has to be a better way to develop overall physical fitness than to just do pushups, sit-ups, and a two-mile run every day.

Not only will Soldiers get bored, but the resulting physical readiness outcomes would become too narrow. Creativity in this type of training program is important to keep a high



Spc. William Manley, a combat medic from the Walter Reed National Military Medical Center, prepares to give Spc. Katie McConnell, a fellow combat medic, an IV during a mass casualty scenario in Lorton, Virginia, on Nov. 18, 2016. (Photo by Tech. Sgt. Robert Cloys)

level of excitement about physical training, but also to ensure every Soldier maintains high all-around physical readiness.

I always tried to create a supportive training environment. Junior NCOs and leaders would try new, creative ideas, and some of them didn't always work. When a junior leader tried something that did not work, I did not want that to be a fatal mistake or one that caused them to curl up in a corner and quit.

Can you share some training techniques to prepare units for deployment?

I think the most important technique is also the hardest to do, and that is to force organizations to use in garrison the same tools, capabilities, and techniques they would use if they were operationally deployed.

For example, if in a support battalion we believe that uploading

the authorized stockage list is very time-consuming and could put a short-notice deployment at risk, then configuring our garrison to look as much like a deployed authorized stockage list would clearly reduce that risk.

If we could do that, then upon deployment, we could brace our stocks in their containers, close and lock the doors, and deploy. Upon arrival in the operational area, Soldiers would unlock the doors and operate just as they did in garrison.

This is a difficult challenge because it is so much easier to operate out of a warehouse, where everything is on fixed shelves. Operating out of containers takes more time, it is less efficient, and it takes longer to respond to customers. This is why operating in a deployed mode is so difficult.

Another technique that helps is to focus on just a few critical tasks that

absolutely must be accomplished to deliver success. I would tell my junior leaders, "Explain why you think these three tasks are really important and those other four are less important. We don't have time to do all seven of them; we can only do three, and we want to focus on the most important tasks."

That kind of discussion is important to have collectively amongst the leaders of an organization. The result should be a shared agreement on where the organization is going to focus its time.

The other technique I would try was to get junior leaders to define the end states they expected during the phases of deployment. I wanted them to be able to explain what logistics conditions would exist at the end of each phase. From each of those end states we could then backward plan the training needed to achieve those objectives.



Retired Lt. Gen. Chris Christianson shares his insights on training.

As the Army focused on fighting wars in Iraq and Afghanistan, we collectively lost the art of training management. How do we as an Army get back to the basics of training management?

I am not sure I agree that as an institution we have lost this art, and I am also not convinced that we want to go back to the way we did it 20 years ago. The world has changed significantly. We have to look at training management differently than we did before.

If we believe the world is very unpredictable, we can deduce that operationally we won't know exactly where we might be asked to go; we may not know who will be on our team when we go or who our adversaries might be. If that is so, then we should not have a training management system that is a lock-step process.

We want to have a system that is much more adaptive and flexible and

much more responsive to a world that is constantly changing.

I think the most important challenge for junior leaders and NCOs is to identify a handful of critical tasks that must be accomplished to deliver success. That is not easy in the uncertainty that defines today's world, but the danger is that we will try to do everything and we may end up not being really good at anything.

Since technology is changing rapidly, and threats are evolving, what is your perspective on what our institutional Army must do to adapt and change to better train leaders and Soldiers?

I recommend that the Army invest in a global knowledge network. Let me explain what I mean. In today's environment, every logistician ought to be able to take advantage of the collective knowledge of the Army

enterprise. If a Soldier is working on a piece of equipment that is unknown to him or her, it would really be good if the Soldier could rapidly access the Army's knowledge enterprise to enable success at the point of need.

Every Soldier ought to be able to "google it" when they run into something they cannot fix or haven't been trained to fix. When I say "google it," I am not talking about the commercial Google. I am talking about the Army's institutional google. Today that does not exist.

If you wanted to know who the lead actor in a 1954 movie was, you could do that today in a matter of 30 seconds on your phone. Our Soldiers ought to be able to access that same sort of capability with regard to the Army knowledge enterprise. If our institutions can invest in this kind of global knowledge network, it will significantly enhance our capabilities.

I also think that we can decentral-

ize training management much more than we have, and that starts with giving our instructors more freedom.

Additionally, our institutions have to figure out how to be more adaptive and dynamic. Taking two to three years to create a new course doesn't fit into today's uncertain environment.

If there was a profound event in the commercial supply chain management sector during a break between terms at an institutional school, we want the ability to integrate that outside event into the next term's course content. We can't do that today.

If a professor at a civilian university told the school administration that it would take three years to create a course, I don't think the professor would stay on the job long.

How can we better use information and technology to impact training in the future?

We should look at how we use technology in our own lives. For example, we bank on our phones. If we have to transfer money from one account to another, we do it using an app on our phones.

We don't get any training for this; we don't get a military occupational specialty that qualifies us to move money electronically, but the application is so intuitive that we don't need training.

These apps also are very secure, enabling us to deposit checks, move money, pay bills, and make investment decisions with peace of mind. We can do all of this at home or almost anywhere in the world.

We need these same kinds of capabilities for our logisticians. The tools that we have available for today's Soldiers are not much more advanced than they were when I was a brigade commander. We have an enterprise resource planning (ERP) system, but the ERP data that's in that system is not coming back and forth to decisionmakers in a way as simple as my banking app brings ERP data to me.

To take the best advantage of technology, I think we should focus on the decisions that logisticians need

to make and then create the kind of applications that are intuitive, easy to use, and that draw data from all of the relevant sources across the logistics enterprise. Not only will that give us better logisticians; it will help focus training programs on what information is needed to make better decisions.

Let's say we are trying to determine where we can best position Bradley transmissions. Should we position 10 Bradley transmissions in Iraq? Or, maybe we should place 20 transmissions in Kuwait and none in Iraq. Maybe we could support more effectively if we kept 40 transmissions at Red River [Army Depot, Texas] and none in either Kuwait or Iraq. What data would we need to make that kind of decision?

Today the data we need resides in a lot of disconnected locations. In the future, we want people to be able to access this data very quickly and very accurately so that we will be able to make better decisions.

Can you provide an example of how we can train jointly to increase readiness?

Sure, I can give you an example. Let's say we are part of a transportation organization, and we are training our truck platoons. We decide one of our most critical tasks is to clear incoming supplies from an aerial port and move them forward to supply support activities located forward in the operational area.

Most Army organizations will conduct this kind of training in an Army-only environment. We train on the critical task, but we do so within the Army environment.

But what if we could create the conditions in training where our Soldiers pick up supplies from an Air Force forward air terminal? In other words, the Soldiers would deal with Air Force jargon, organizations, and culture while executing their tasks.

We could also create joint conditions at the other end by having the Soldiers deliver those supplies to a

Marine Corps air-ground task force supply organization. That's actually what happened in Operation Iraqi Freedom all the time.

So, if we actually created joint conditions in training, what happens to the Soldiers' learning? The critical tasks for the Soldiers (drivers, platoon leaders, and platoon sergeants) remain the same, but the joint conditions fundamentally change the learning. Now our Soldiers will begin to gain an understanding that they are part of a much larger, more complex supply chain. Change the conditions, change the learning!

What advice would you provide young leaders on how to best keep their Soldiers engaged during training?

Leaders have to be there! If our junior leaders think that training is important enough that their Soldiers have to be there, then the leaders have to be there as well. I can't tell you how many times I've gone out to visit a training event and found very few leaders there. The NCO responsible will always be there. But sometimes the Soldiers going through training are from two or three different platoons, squads, and sections, and often their leaders just don't show up. That's not right.

Young leaders have got to be there. If Soldiers see three or four times in a row that their leaders are not there, they will be thinking, "Why am I out here doing all this stuff and my sergeant or lieutenant is not here? If it's not worth their time, why is it worth mine?" Young leaders must be there.

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Transporters recover a container on June 9, 2016, during a two-day skills competition with Soldiers from the 32nd Composite Truck Company, 68th Combat Sustainment Support Battalion, 4th Infantry Division Sustainment Brigade, and the Supply and Distribution Company, Group Support Battalion, 10th Special Forces Group (Airborne). (Photo by Sgt. Benjamin Kullman)

Streamlining Composite Truck Companies

Lessons learned from one composite truck company may help Soldiers make the best use of this massive transportation unit.

■ By Capt. Joseph B. Steigman

In 2014, the 396th Transportation Company transformed into the 396th Composite Truck Company (CTC) as part of the Army 2020 and Beyond Sustainment White Paper's vision of a single transportation unit being able to provide a supported commander with a full array of lift capabilities. These new companies became expensive 270-Soldier

organizational behemoths with corresponding administrative and operational challenges.

The CTC has the assets required to provide a full array of transportation support, but Soldiers may need to apply the lessons learned outlined in this article to run this type of company because doctrine does not provide the tools necessary for its

administration and mission execution. Doctrine offers little guidance for operating a CTC and managing transportation relationships among the sustainment brigade, brigade combat teams (BCTs), and brigade support battalions (BSBs).

A BSB, which is generally located relatively close to the forward line of troops, has many transpor-

tation shortcomings. Doctrine's answer to these shortfalls is that BSBs should coordinate for support with a sustainment brigade's combat sustainment support battalion (CSSB) and use forward logistics elements (FLEs). The solution is outlined, but no insight is offered as to what this relationship looks like in operational or tactical environments.

There is little precedent for how a CTC should operate. Leaders responsible for a CTC find themselves asking several key questions: How do you administrate a company of this size? How does a CTC operate now that it is the only transportation game in town? And how does a CTC support multiple BSBs that require FLEs to support their unique requirements?

This article assists leaders with these challenges by recommending several strategies derived from lessons learned by the 396th CTC. It also offers some suggestions for modifying the CTC to better meet the Army's transportation requirements.

CTC Administration

A CTC is very large and has several types of Soldiers, but it still has only one commander and one first sergeant. The sheer size of the company means that the command team will spend more time on legal and administrative issues.

Deliberate organization of the orderly room and headquarters keeps company administration routine rather than overwhelming. Strategies to streamline administrative operations include incorporating a daily or weekly legal huddle into the battle rhythm, requesting an experienced human resources (HR) specialist, and building strong relationships with the sustainment brigade's medical team.

The commander is the only member of the unit capable of driving Soldiers' administrative and legal processes. Detailed tracking of the status of every incident will ensure that the commander knows what he or she must accomplish next.

Whichever officer is tasked to update the CTC's unit status report is typically up to date on these types of issues and is a natural candidate to take charge of an administrative and legal tracker.

Commanders drive the train, but squad and team leaders are the ones who get Soldiers to trial defense, central issue facilities, or even an Army and Air Force Exchange. In other words, administrative and legal execution can be handled in the same way missions are handled: with troop leading procedures. Subordinates receive guidance on what to do with Soldiers as early as possible and initiate movement, and commanders systematically supervise and refine.

Having an experienced HR specialist makes a difference in how a CTC's orderly room is managed. A CTC is authorized two junior HR Soldiers; the more experienced Soldiers work with a battalion staff. These two junior Soldiers are responsible for all orders, leave packets, awards, evaluations, and personnel status reports in this massive company. Additionally, these Soldiers often find themselves compiling administrative actions and separation packets.

In the 396th CTC, the orderly room was run by two HR Soldiers and augmented with a noncommissioned officer (NCO) from the maintenance section. Adding an NCO into the headquarters provided not only another person to help with the work but also a leader to set priorities and manage interactions with senior-ranking personnel. However, this was only a stop-gap measure since the company could not keep the maintenance NCO away from her primary job.

Deliberately placing experienced HR specialists into a CTC alleviates headaches not only for the CTC commander but also for HR sections at the battalion level and higher. Overwhelmed Soldiers at the company level consistently submitted mistakes to the battalion that doubled the work at both echelons.

The Army should change personnel authorizations to allow CTCs to have an HR NCO. The amount of HR paperwork required to run the company justifies this request. Furthermore, all HR sections at higher levels would become more efficient because incorrect paperwork would be reduced at the lower level.

The last administrative strategy the company employed was to build a close relationship with the 3rd Infantry Division Sustainment Brigade's medical team. On request, the brigade surgeon would review Soldiers' files and determine if they were good candidates for fit-for-duty evaluations, warrior transition battalions, or discharges.

Rather than waiting for months for Soldiers to remain on temporary profiles, the company could quickly start moving them out of the unit. When it was time for the commander to fill out paperwork for a recommendation for separation, the medical team provided a compressed digital file with the Soldier's information.

With this type of close relationship, work is sensibly task-organized. When paperwork is being produced, medical personnel complete medical entries and commanders complete Soldier-related entries. The final product is typically accurate and complete, and it allows the company to continue operations.

CTC Operations

Platoons in a CTC are authorized a single type of vehicle per platoon; this is inadequate to accomplish missions, and the platoons must be reorganized. There are two types of CTCs: heavy and light. The primary difference between the two types of companies is that light CTCs have a second medium tactical vehicle (MTV) platoon instead of a heavy equipment transporter (HET) platoon. Regardless, the concepts that apply to organizing a heavy company can apply to a light company.

Heavy CTCs, like the 396th, are organized into six platoons: a HET platoon, two palletized load system

platoons, an MTV platoon, a maintenance platoon, and a headquarters. CTCs are designed to provide all types of line-haul transportation in a single company. CTC platoons, on the other hand, follow the old model of pure heavy, medium, or light truck units. The very problem a CTC was designed to resolve was just moved from the company level to the platoon level.

CTC task organization is how to handle the five gun trucks assigned to each platoon. Keeping gun trucks in each platoon maintains unit integrity. However, there are times when small parts of the company detach and require security to move with them.

If gun trucks from a single platoon provide this security, the rest of the platoon is without adequate security

CTC platoons, on the other hand, follow the old model of pure heavy, medium, or light truck units. The very problem a CTC was designed to resolve was just moved from the company level to the platoon level.

CTCs should be reorganized into composite platoons; each platoon would have heavy, medium, and light lift capabilities. These platoons would be able to handle most missions with crews and vehicles from within their formation if they were redesigned to have all three lift capabilities.

Most missions require multiple types of vehicles. Currently, to meet mission requirements of varying lift capability, convoys are composed of vehicles and crews stitched together from across the entire company.

By using composite platoons, one mission could be accomplished with one platoon. This means one platoon leader or convoy commander would actually lead his or her Soldiers rather than a random assortment of whoever was available from each section.

The truckmaster, the senior NCO who runs the company operations section, then would have an opportunity to simplify his or her job. Instead of determining how many crews to task from each platoon to accomplish a mission, the truckmaster could simply assign missions on a rotational basis.

The second major challenge with

coverage. To compensate, platoons then pool resources, and unit integrity problems resurface.

An alternative is to create a separate security platoon. The major advantage to this is that all company gun trucks train together. This guarantees that crews can anticipate each other's reactions during convoy security battle drills.

Additionally, the gun trucks in a CTC are often viewed as a battalion or brigade asset. There are no other security elements in a division-aligned CSSB or sustainment brigade, so CTCs must anticipate the issue of frequently detaching security teams or absorbing convoy elements from around the brigade. Placing all security platoon assets into a separate platoon makes deploying them onto the battlefield in small elements easier.

Embedding gun trucks into each line-haul platoon or creating a separate security platoon both have advantages. Commanders must decide which course of action provides the best training, unity of command, and flexibility for the unit and their Soldiers.

Working With BSBs

The last major challenge of managing a CTC is integrating the company's transportation assets with the BSB's operations. The ability to provide transportation of troops and heavy equipment, such as Strykers, tanks, and Bradley fighting vehicles, is now primarily located in the CTC.

In an expeditionary environment in which a CSSB supports several BCTs, the BSBs will likely request FLEs to execute routine operations they no longer can support, such as heavy recovery or casualty movement. CTCs and CSSBs should plan on detaching mission-sized FLEs of MTVs, HETs, and gun trucks to operate within the BCT's area of operations.

When a BSB requests a CTC FLE, the CSSB and BSB should work together to integrate the detachments into the BSB's area of operations. Encouraging detachment leaders to interact directly with the BSB will make support more efficient.

In a perfect world, the CSSB support operations officer (SPO) and BSB SPO are in sync and the information flowing to FLEs is complete and accurate. However, even when strong relationships between these cells exist, reality moves faster than communications among the BSB, CSSB, and FLE.

The most up-to-date information readily available to the FLE is located at the BSB command post. FLE leaders should view the BSB command post as their primary source of information and feel confident initiating movement based on the BSB SPO's guidance.

The CSSB retains ultimate authority for FLEs in order to manage support among multiple BCTs. However, the FLE's mission is to provide logistics support that a BSB does not have the capability to do itself. To fulfill that mission, the FLE should continue taking direction from the BSB SPO until ordered otherwise by the CSSB.

Given the responsibility of a CSSB and CTC commander to support



Pfc. Justin Clark, a petroleum supply specialist with the 289th Composite Supply Company, 336th Combat Support Sustainment Battalion, 17th Sustainment Brigade, 1st Theater Sustainment Command, assists with the unloading of an Iraq Train and Equip Fund shipment of vehicles at an undisclosed location in Iraq on Sept. 24, 2016. (Photo by Sgt. 1st Class Naurys Marte)

multiple brigades, the requirement to give mission command of the FLE to another unit is likely to meet resistance. Commanders leading CTCs that send FLEs to each supported BCT may seriously cripple their ability to support units in their areas.

On the other hand, CTCs may try to maintain as much control of as many assets as possible. BCTs and BSBs may then find themselves coordinating and waiting for support for small but critical movements that inevitably happen at unpredictable times.

Perhaps the more pressing problem is that there may not be enough lift capacity to go around. If BSBs had the equipment they needed, or if a CSSB had a second CTC, then com-

manders could send out all the FLEs required and still have enough trucks to operate their sustainment lines.

Lastly, any CTC detachments operating far from their battalion should always be outfitted with a pallet of their own tents and cots. In high operating tempo environments, these detachments frequently find themselves at new camps or unexpectedly remaining overnight at places that are unprepared to support an extra squad of Soldiers.

There is very little in the Army's arsenal that a CTC cannot transport. The challenge is how to streamline the operations of such a massive organization. Resourcing the company with an experienced HR NCO and

aggressively closing out legal, administrative, and medical tasks are paramount to supporting the company's command team. Creating composite truck platoons increases unity of command while reducing the time needed to task-organize company elements. Finally, integrating CTC detachments into BSB operations allows detachments to more effectively support a BCT.

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Paratroopers assigned to the 4th Battalion, 319th Airborne Field Artillery Regiment, 173rd Airborne Brigade Combat Team, land in Grafenwoehr, Germany, during a heavy equipment drop on Oct. 18, 2016, as part of Peacemaster Unity training. The Soldiers jumped from a C-17 Globemaster III flown by a crew assigned to the Heavy Air Lift Wing in Papa Air Base, Hungary. (Photo by Spc. Emily Houderschildt)

Determining the Purpose of an ISB for Airborne Operations

■ By Lt. Col. Joel P. Gleason and Lt. Col. Gary Brock

Airborne joint forcible-entry (JFE) operations exist as a strategic option to defeat anti-access/area-denial threats, provide a rapid response capability, and potentially open the area of operations (AO) for heavier follow-on forces. Conducting airborne JFE directly from home station to the drop zone remains a viable option, but it requires unilateral action,

which no NATO nation is likely to undertake in the current joint operational environment.

It is far more likely that crisis response forces will assemble a coalition outside of the contingency operations location and stage forces for the coming fight. To accomplish this, the crisis response coalition is likely to employ one or more intermediate staging bases (ISBs).

Crisis response forces must train to establish ISBs in order to ensure their ability to leverage existing organizations and infrastructure. This will enable speed of assembly and increased operational reach when a crisis arises.

Crisis response force commanders and staffs must understand and train the ISB tasks of forward staging and operational support as well as the key

ISB purposes of building capacity, conducting intermodal transfer, and disaggregating and aggregating forces en route. These tasks and purposes can shape training objectives in order to quickly assemble and deliver an airborne multinational brigade combat team (MNBCT) and employ an ISB to support the mission.

Crisis Response Considerations

During crisis response operations, strategic leaders will seek formations and infrastructure that crisis response forces have already trained to employ.

In order to deploy combined crisis response forces effectively, the allied, joint force must constantly train on how to establish ISBs and how to facilitate joint reception, staging, onward movement, and integration (JRSOI). In the context of ISB operations, the acronym JRSOI is preferred over the NATO doctrinal term RSOM [reception, staging, and onward movement] because the NATO term does not include the integration step, which is critical to coalition formation at an ISB.

Employing an ISB within a combat training center (CTC)-sized exercise carries the added restriction that ISB training objectives must not degrade other training.

ISB Doctrine

U.S. doctrine for ISB establishment and utilization is limited and requires further definition and development. Recent changes to Army publications sought to reduce unnecessary information while recognizing that the side effect of this shift eliminated a significant amount of guidance. Additionally, NATO doctrine does not cover ISB establishment.

In 2003, the Army briefly released and then rescinded Department of the Army Pamphlet 700-33, Intermediate Staging Base Handbook. Likewise, doctrine writers removed nine pages of ISB discussion from doctrine between the 2009 publication of FM 4-0, Sustainment, and the 2012 release of Army Doctrine Reference Publication 4-0, Sustainment. Some

relevant information still remains in Joint Publication 3-35, Deployment and Redeployment Operations, but the discussion of ISBs is limited. Although this sounds like an information drought, it liberates planners to develop the concepts asserted in this article.

According to current doctrine, ISBs exist to accomplish the two tasks of forward staging forces and providing operations support from a location closer to the contingency operation. In order to best use ISBs for airborne operations, planners can pair those two tasks with these three purposes: build capacity, conduct intermodal transfer, and disaggregate and aggregate forces.

Considering these purposes should aid airborne and theater planners in conducting mission analysis and help commanders and their staffs determine the requirements and purposes for the ISB.

Building Capacity

The most widely understood purpose for an ISB across the JFE community is to build capacity in a situation without time constraints. An ISB with the task to forward stage and the purpose to build capacity uses a location closer to the objective to build combat power.

Using a closer location allows combined forces to plan, train, and rehearse, reduces the time from decision to action, and shortens airdrop missions. It also makes it easier to stage follow-on forces (forces that will land instead of airdrop) and forward stage contingency enablers. This task and purpose pair is the most obvious for training airborne forces at CTCs.

A task to conduct operations support in order to build capacity at an ISB allows for the pre-positioning of logistics stocks, reduces the range for mission command elements that do not need to be in the AO, and reduces the response time for urgent support requests. This task and purpose also enables military aircraft to conduct ground refuel en route without reconfiguring loads of per-

sonnel or equipment.

No matter which task is designated, an ISB with a purpose to build capacity can accomplish any subtask separately.

Conducting Intermodal Transfer

Another commonly understood ISB purpose, conduct intermodal transfer, increases efficiency and operational effectiveness. Intermodal transfer can effectively increase momentum while allowing Soldiers to maintain both endurance and protection for greater operational reach.

When using an ISB in order to conduct intermodal transfer, follow-on forces deploy to the ISB by one mode (commercial air, strategic airlift, or fast surface ship) and continue on from the ISB to the AO by another mode that fits the capability of the seized airhead in the contingency AO. Often at least one mode is a joint capability. While a second echelon organizes at the ISB, initial-entry forces may directly airdrop into the contingency AO from home station or use another ISB concept.

Conducting intermodal transfer at an ISB allows sustainment forces and the joint distribution enterprise to reconfigure strategic stocks and equipment into usable packages, such as containerized delivery system bundles, in order to meet the supported commander's requirements. This is the most common employment of an ISB, but it is often operated by echelons above brigade (EAB). Therefore, employing this ISB concept at a CTC would require an EAB training audience or enabler.

Disaggregating and Aggregating

The least understood and least trained ISB purpose is to deploy airborne forces to forward stage in order to disaggregate and aggregate en route. This practice increases speed and operational reach through existing forward basing.

This ISB task and purpose is most likely to occur in a large-scale high-speed deployment. The airborne force must forward stage at



Spc. Katrina Saddler, a human resources technician with the 82nd Airborne Division Sustainment Brigade, works with 16th Sustainment Brigade counterparts on June 7, 2016, at Ramstein Air Base, Germany, to record on a manifest the 82nd Airborne Division and United Kingdom paratroopers preparing to jump into Poland during exercise Swift Response 16. (Photo by Sgt. Daniel Schroeder)

multiple ISBs or pre-existing forward bases in order to disaggregate when the initial-entry force requires an air package too large for a single airbase to support.

To accomplish this, a large air fleet transports forces from home station to multiple ISBs that together meet the required capacity for all of the aircraft. Forces at disaggregated locations synchronize their deployment in order to deliver an aggregated force over the drop zone that is in excess of any single ISB's capacity.

The disaggregate and aggregate force ISB concept provides an opportunity for greater mass and increases the probability of surprise on the objective. The initial-entry force can use this method to put more combat power on the drop zone than a single airfield could support. This concept also takes advantage of operations security by dispersing the signature

of a sizable force over several basing locations, although social media may render this obsolete.

Replicating the infrastructure required for disaggregating and aggregating forces in training is very resource intensive. The most likely way to replicate a scenario similar to this would be to coordinate between allied airborne forces for delivery of units from multiple home stations into a training exercise.

JMRC Training

Units training at the Joint Multi-national Readiness Center (JMRC) have the opportunity to conduct the full deployment process, including operating an ISB that replicates contingency operations. Recent JMRC airborne training exercises have primarily trained to build capacity through staging an airborne MN-BCT at an ISB. Exercise Anakonda

16 successfully resourced and replicated the disaggregate and aggregate concept by converging forces from three points of origin.

In most cases, airborne forces training at the JMRC have not had the resources to conduct any of the other ISB concepts. All of these ISB task and purpose sets can be used for training, but their usefulness varies depending on the training audience.

Conducting intermodal transfers in order to stage or support could be prohibitively expensive unless an EAB training audience or enabler exists. Without an EAB sustainment participant, it would be better to use the existing pre-exercise surface and rail deployments as training opportunities. Deploying any element to the JMRC will involve some intermodal transfer unless it is a direct airdrop or airlift from home station.

The touch-and-go nature of dis-

aggregate and aggregate ISBs makes this concept less critical to train but important for planners to comprehend. The disaggregate and aggregate purpose for ISBs is also not a preferred concept for the task to provide operations support, so that training is less vital to the airborne JFE community. An airborne force gains no advantage by attempting to establish multiple ISB mission command nodes.

The most critical function of the airborne ISB in JMRC training is to allow the coalition and joint services to execute the formation of an airborne MNBCT through JRSOI activities. Conducting the ISB task and purpose sets of forward staging and operations support in order to build capacity during training will make the integration of high-readiness forces a real possibility for future contingencies.

JRSOI at the ISB

In training or during contingency operations, the forward-deploying organization must form, train, plan, and communicate as a single unified organization. JRSOI at the ISB generates human, procedural, and technical interoperability training opportunities across the airborne MNBCT.

Reception and staging of forces is the initial occasion for testing established command and support relationships within the task organization. This is also when the airborne MNBCT commander and his staff ensure they fully comprehend the capabilities and capacities existing within their task organization.

Although the integration of the airborne force will likely occur before the actual onward movement from the ISB, the detailed planning for onward movement must occur simultaneously with the integration activities. Airborne commanders use a prioritized vehicle listing (PVL) to detail the deployment of combat power across their organizations.

The PVL should include spaces for personnel as well as critical sup-

plies and should detail the air-drop and follow-on echelons. Any prioritization for the movement of organic forces made at home station or during the initial operational planning must be recertified with the actual forces available (not promised) to the MNBCT staged in the ISB.

If a portion of the force is designated to move into the AO after a ground line of communication is secured, then these forces should also receive priority designation on a PVL. Even if a preliminary PVL is set before arrival into the ISB, the introduction of allied formations, capabilities, and lift assets generates a PVL mission analysis review.

Part of the PVL mission analysis must occur within the airborne MNBCT during integration; integration is when interoperability occurs. A staff planning exercise in the ISB is one way to give the MNBCT commander and his staff time to understand, visualize, and describe the newly organized formation and to prepare all elements for the operation.

It is critical that both a mission command validation exercise and a communication exercise occur to test systems and procedures before the JFE occurs.

ISB Mission Command

Before onward movement can occur, forces stand up an ISB mission command (ISB-MC) node. This ISB-MC node is a small element responsible for ensuring critical-support coordination, including intelligence, joint fires, and sustainment. The ISB-MC node also facilitates forward staging and onward movement and maintains positive mission command with the higher headquarters and the forward command post.

The ISB-MC node should be led by someone with the authority to make both execution and adjustment decisions about the PVL and any support coordinated from the ISB. Manning for this element can initially come from the deploying unit (depending on how long it has been and will continue to be around).

If the ISB-MC node is necessary after the PVL has been fully executed, it is best staffed by EAB elements, including higher headquarters and adjacent sustainment units, in order to allow the deploying commander to focus on the forward fight.

Crisis response forces must understand and train ISB tasks of forward staging and operations support as well as the purposes of an airborne ISB to build capacity, conduct intermodal transfer, and disaggregate and aggregate forces en route. Airborne commanders must know how to assemble and deliver an airborne MNBCT in a short time. They must also visualize how to employ an ISB to support the mission.

JRSOI doctrine allows planners, commanders, and their staffs to develop training for ISB employment that replicates an ISB's role in crisis-response conditions. Ensuring crisis response forces understand how the ISB experience relates to readiness will ensure they know how to tap resources to speed assembly and increase operational reach in a crisis.

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Combat medics from Headquarters and Headquarters Company, 1st Battalion, 153rd Infantry Regiment, simulate a mass casualty event at Fort Bliss, Texas, on Jan. 17, 2017. This mass casualty exercise allowed the medics to use their medical training in a controlled environment and practice saving lives during chaotic times. (Photo by Spc. Victoria Eckert)

A Realistic and Relevant Medic Training Program

■ By Sgt. 1st Class Edward M. Erbland

Any military occupational specialty (MOS) 68W (health care specialist) noncommissioned officer (NCO) can tell you about Training Circular (TC) 8-800, Medical Education and Demonstration of Individual Competence. However, many of them have lost touch with the following statement from the TC's introduction: "To be effective, training must provide Sol-

dier medics with opportunities to practice their skills in an operational environment. Conditions should be tough and realistic as well as physically and mentally challenging."

Often this type of training, a biennial requirement, becomes a watered-down, static exercise, devoid of the combination of environmental stressors and problem-solving required to create competent and confident

medics. This is caused by a combination of factors, including lack of time, lack of training resources, lack of experienced subject matter experts, and complacency.

Improving Training

As the medical field becomes more technical, training requirements are sure to become more demanding. However, medics are a smart bunch

who yearn for training and mentorship, and they will respond positively. Additionally, MOS 68W is unique in that it requires Soldiers to train to retain that MOS. If you have to do it, why not make it good?

Focus on dynamic training. Static training fills a purpose: it checks a box. But what inexperienced medics need is dynamic training preceded by phased cognitive and psychomotor exercises. This formula should be cyclical and follow a crawl-walk-run progression throughout the training year. This will keep skills fresh for more experienced medics and give leaders an opportunity to gauge the proficiency of junior medics who are new to the platoon.

Switch between classroom training (static) and lanes training (dynamic) to balance out your training plan, and keep the static psychomotor training to a minimum. It is not realistic and will create bad habits. Soldiers will never face situations like those presented in static skills stations, so why train with them? Medical emergencies are complex, evolving, and stress-evoking. They require problem-solving and the spontaneous development of contingency plans.

Make it realistic. Enlist Soldiers from other sections or companies to be the actors in training scenarios in order to eliminate familiarity. Use medical equipment as training aids to develop muscle memory. Do not be afraid to use moulage to add an element of realism. Training should be a mix of operational, sick call, and non-duty-related scenarios. TC 8-800 allows that flexibility.

Know that your training plan will not go to waste. The continuous training requirements for medics, the combat lifesaver program, and warrior tasks and battle drills offer ample opportunity to improve the training plan and groom subordinates to assume more responsibility.

Keep the medics interested. If you look out over your platoon and see glazed-over looks, yawns, and indifferent attitudes, your Soldiers are not

learning. Training does not need to be fun, but fun training will always be remembered. And being remembered is certainly a hallmark of effective training.

Success Under Stress

Succeeding in a stressful situation will build a medic's confidence and proficiency. The first time medics have a patient whose life is at stake should not be the first time they are stressed. They should be prepared for the rigors of emergency medical care, and it is their leader's job to prepare them. However, there are only two acceptable methods of preparation: experience and realistic training.

Experience comes with time, but leaders have direct control over their Soldiers' training. That training should include the most critical element to preparing for success under fire: stress. An outstanding resource on the benefits of adding stress to training is *Sharpening the Warrior's Edge*, Bruce K. Siddle's book about the psychology and science of training.

Being a smooth operator under stress is not a trait that is inherent in all medics. Often, building confidence under stress is attained through successes and, conversely, through learning from failure during training. That learning comes from experienced NCOs constructively critiquing their Soldiers' performances.

However, Siddle states that a positive experience during dynamic training is required to develop confidence under stress. If medics are unable to perform positively during dynamic scenario training, static psychomotor exercises (skills stations) will benefit during remediation. Skills-station training allows trainers to slow down and isolate individual skills, which will allow them to better diagnose and correct problems.

Siddle also states that the effectiveness of dynamic training deteriorates when the scenarios are neither realistic nor based upon actual field applications. A lack of realism leads to loss of confidence and motivation.

Don't Do It Alone

Medical simulation training centers offer several medical training opportunities outside of the standard fare laid out in TC 8-800. Indeed, TC 8-800 does not mandate that medical education and demonstration of individual competence (or MEDIC) table training be conducted on a military installation.

When we think of community partnership, we generally think of the reserve component, but this does not need to be the case. What the 68W NCOs in the Army Reserve and National Guard lack in time to execute (compared to their active component brethren) they make up for in relationships with civilian medical agencies and training centers.

Consider "ride-alongs" with local fire departments and ambulance corps or rotations at the emergency department of a local trauma center. These offer opportunities for medics to witness and participate in stressful, complex, and educational experiences without being thrust into the role of a primary lifesaver.

In my experience, one of the most common complaints from subordinates has been a lack of training—more precisely, a lack of interesting training. Your unit's 68W training plan should prevent that complaint by providing realistic, challenging, and indelible training. It is about training good medics and—almost as importantly—it is about retention.

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Sgt. 1st Class Christopher Parker briefs Lt. Col. Paul Grant on his firing positions based on surface danger zone constraints on the range at Fort Stewart, Georgia, on Dec. 1, 2016. Surface danger zones and weapons danger zones are critical to setting up a successful range.

Realism Versus “Range-ism”: Using Surface Danger Zones to Plan Convoy Live Fires

■ By Maj. Emanuel Velez and Capt. Frederick Brown

Many sustainment leaders may encounter a convoy live-fire range with risk-averse controls that diminish realism or do not support the commander’s training objectives. But few training events prepare sustainers for war better than a well-planned and realistically executed convoy live-fire exercise (CLFX).

In his fiscal year 2016 training guidance, Gen. Robert B. Abrams, the commanding general of Forces Command, stated, “Commanders of Combat Support and Combat Service Support units will ... train to

secure and protect their convoys and operating locations” under realistic conditions. In addition, he directed, “Unnecessary or outdated range control measures that inhibit realism will be eliminated through coordination with installation range control and safety personnel.” In part, Abrams speaks of the responsibility of leaders to incorporate range safety deviations to increase realism.

Maneuver units frequently use surface danger zones (SDZs) to apply range safety deviations and adequately train for war. Their proficiency in

live-fire exercise (LFX) planning and skilled execution of combined arms LFXs demonstrates an expert ability to win wars on complex battlefields. But their proficiency is due in large part to the emphasis they place on LFX planning during professional military education (PME), such as basic officer leader and captains career courses.

Currently, logistics branch PME does not provide instruction in LFX planning. Too many important subjects must be covered in a short time, such as calculating net explosive weights or fuel and water consump-

tion rates. But logisticians cannot wait until their maneuver counterparts say that LFX planning needs to be taught. The Army Logistics University must make it a priority.

The History of SDZs

The use of SDZs in training dates back to World War I. In response to aircraft attacks, ground troops would train to fire in the air to shoot down air threats. This resulted in ammunition landing on other troops that were in training areas kilometers away.

By the 1940s, publications such as Army Regulation (AR) 750-10, Range Regulations for Firing Ammunition in Time of Peace, and Technical Manual 9-855, Targets, Target Materials, and Training Course Layouts, (both now obsolete) provided policy and regulations for Army leaders to establish ranges for training.

However, as early as the 1970s, Army ranges developed overly cautious safety measures that hindered live-fire training, and the undue effects of “canned ranges” was obvious in low-performing units at combat training centers. An article published in the May–June 1985 edition of *Infantry* magazine, “Training Realism and Safety,” highlighted these problems and outlined six ways that safety measures adversely affect training.

Today, shooting between restrictive “candy canes” and “barber polls” does not provide adequate training because it facilitates a “play the game” behavior as Soldiers anticipate the lane. To mitigate this behavior, planners may implement range safety deviations through the smart use of SDZs.

What to Know

AR 385-63, Range Safety, and Department of the Army Pamphlet (DA PAM) 385-63, Range Safety, define an SDZ as the “ground and airspace designated within the training complex ... for vertical and lateral containment of projectiles, fragments, debris, and components resulting from the firing, launching, or detonation of weapon systems.” SDZs are calculated using ballistic firing tables and are a graph-

ic and probabilistic representation of where rounds will go.

SDZs are instrumental in firing safely because they account for rounds that ricochet, bounce, skip, and splash before and after they hit the intended target. A composite SDZ shows a combination of multiple danger zones and identifies total land requirements at a given phase of the LFX.

SDZs allow leaders to determine mathematically how close elements get to the target so that they can judge where, when, and if they want to accept risk. If constructed properly, SDZs give trainers the ability to maximize realism by allowing units the most freedom of maneuver within administrative constraints.

A maneuver box, according to Training Circular (TC) 4-11.46, Convoy Protection Platform Gunnery, is “the maximum distance a vehicle could travel and still have the target(s) exposed.” The maneuver box accommodates movement onto an objective, and the size of the maneuver box should be based on the average vehicle speed for the course and the target exposure time.

Planning a CLFX

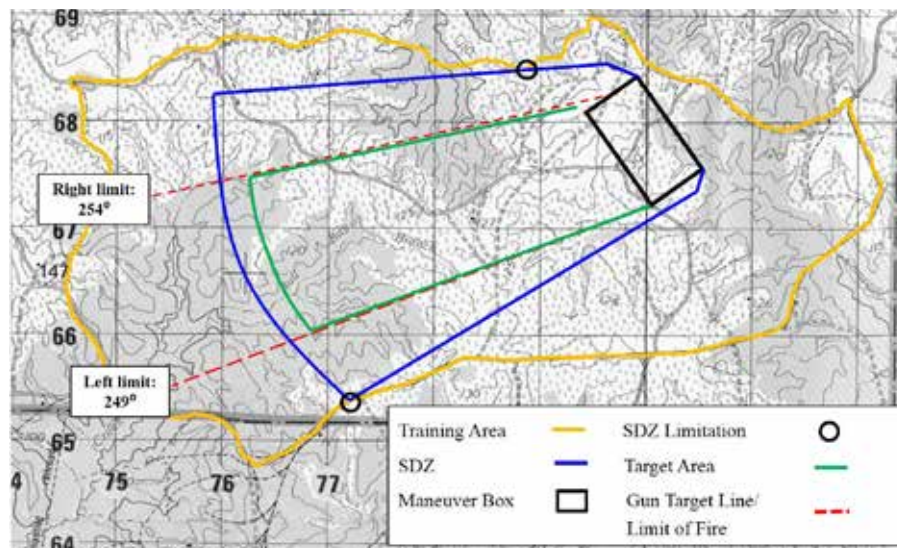
To sufficiently plan a CLFX, planners should use an SDZ overlay kit and consider range modifications

in accordance with AR 385-63 and DA PAM 385-63. Deciphering these texts might seem daunting, but if sustainment leaders can grasp the fundamentals of Chapters 3 and 17 of DA PAM 385-63, they will have enough information to transform any range into a realistic training lane.

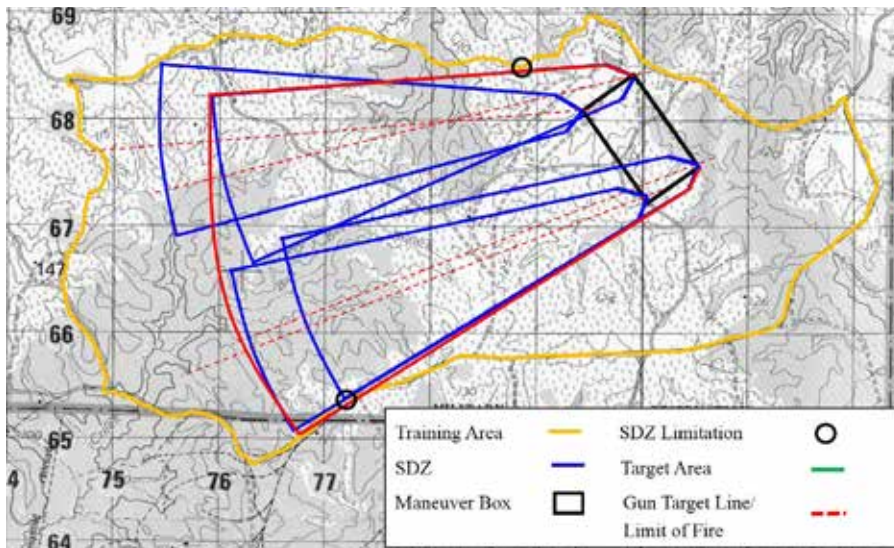
An SDZ overlay kit should contain the following:

- A copy of AR 385-63.
- A copy of DA PAM 385-63.
- A copy of TC 4-11.46.
- A copy of TC 7-9, Infantry Live-Fire Training.
- A 1:50,000-meter map of the training area.
- A protractor.
- A straight edge.
- A GPS device (optional for the range walk and validation of maneuver boxes).
- A lensatic compass (for the range walk and validation of left and right limits).
- SDZ templates (an acetate sheet may be used [national stock number 6730-00-401-9631 or 7510-01-269-2303]).

If unsure how to use an SDZ overlay kit to plan a CLFX, a sustainer can discuss it with a maneuver counterpart, preferably a leader familiar



Surface danger zones (SDZs) allow planners to establish limits of fire and the target area for each maneuver box.



Surface danger zones (SDZs) for each weapon system used in the live-fire exercise must be measured from each corner of the maneuver box, but the zone must not extend beyond the designated training area.

with mounted live-fire maneuvers.

Begin the process by identifying training objectives, task organization, and weapon systems to employ. Also, determine 8-digit grid coordinates for targetry and maneuver boxes. Using a map and SDZs traced on acetate sheeting, create an overlay that includes the SDZs from each corner of the maneuver box to ensure rounds from all weapon systems do not impact occupied friendly positions within the maneuver box or outside the training impact area.

Employ graphic control measures, such as terrain-associated phase lines or avenues of approach, to prevent fratricide and to force units into maneuver boxes. Finally, always validate observer-controller/trainer teams prior to the CLFX in order to create a shared understanding of administrative controls within the lane.

CLFX Planning in Logistics PME

In the Logistics Captains Career Course, the curriculum follows the critical task list of each branch (Ordnance, Transportation, and Quartermaster). Logisticians should determine what basic skills outside the logistics realm are essential in order to provide seamless sustainment, protect the force, and improve survivability.

Logisticians have to reassess the relevance of roughly 22 hours of training on the Command Post of the Future, Global Combat Support System–Army, and other systems. By reducing the hours of some of the highly technical blocks of instruction, instructors could introduce students to basic CLFX planning. Students do not have to be made into experts, but at a minimum they should be exposed to LFX planning.

If sustainment planners hear about CLFXs or brigade support area defense planning for the first time at a combat training center, they are already at a disadvantage compared to their maneuver counterparts. In today’s Army, time and resources are precious commodities and the quality of training is vital. Even in the classroom, scenario-driven CLFX training can dramatically improve the tactical posture of convoys on the battlefield, and it might help change the “soft target” mentality within formations.

DA PAM 350-38, Standards in Weapons Training, states that LFX training should provide “a realistic threat with a target-rich environment. Each Soldier should have the opportunity to employ his weapon. The LFX should test the ability of the unit’s chain of command to con-

trol and distribute fires effectively.”

However, sustainers are frequently overwhelmed with maintaining equipment, preparing the next hot meal, transporting warfighters to the next line of departure, or moving and issuing ammunition. When they have the opportunity to train, they must do it in the most realistic of circumstances and capitalize on the opportunity to experience the uncertainty of battle in a simulated but accurate environment.

In order to adequately train mounted skill sets, sustainment leaders must be acquainted with applying SDZs in CLFX planning. Logistics PME curriculum designers should consider including an LFX planning block of instruction and exercise.

In the meantime, leaders must seek mentorship from maneuver counterparts and develop an understanding of using SDZ planning schemes to design range safety deviations in a CLFX. In doing so, sustainment leaders may bypass “range-isms” and plan a CLFX that incorporates realistic training with suitable safety measures.

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Capt. Frederick Brown is an Advanced Civil Schooling graduate student at Virginia Tech and a former forward support company commander for the 1st Battalion, 325th Airborne Infantry Regiment. He is a graduate of the Logistics Captains Career Course, Aerial Delivery and Materiel Officer Course, and Jumpmaster Course. He holds a bachelor’s degree from Georgia College and State University and a master’s degree from the University of Oklahoma.

Financial Management and Human Resources Warfighter Training Support Packages

Warfighter training support packages give financial management and human resources Soldiers the tools to accomplish their wartime missions.

■ By Sgt. 1st Class Alejandro Bustamante

The Soldier Support Institute (SSI) Training Development Directorate, in collaboration with the Adjutant General and Financial Management Schools, created a series of warfighter training support packages (WTSPs) that financial management (FM) and human resources (HR) organizations can use to conduct unit and team training.

A WTSP is a complete, detailed, exportable package that contains training products, materials, and information to support operating force training. A WTSP includes training content such as collective and indi-

vidual tasks, lesson plans (slides and instructor notes), and practical exercises. FM and HR organizations use WTSPs to gain, maintain, and improve their technical proficiency in the individual and collective tasks required to accomplish their wartime missions.

WTSPs supplement a unit's approved combined arms training strategy. They establish no set sequences or mandated requirements, so unit trainers and leaders should first assess the training status of their units and then select the appropriate entry point and training topics.

WTSP lesson plans provide an es-

timate of the academic hours needed for each learning activity. The estimates can serve as guidelines for scheduling technical training. Units must recognize that it may take several training periods to complete a specific task.

The current inventory of FM and HR WTSPs can be found on the SSI Learning Resource Center website, in the Army Training Network, and in the Central Army Registry. These platforms are also used for WTSP updates.

The Learning Resource Center is located at <https://ako.ssi.tradoc.army.mil/TDD/SSITDD/SiteAssets/lrcPage/lrc.html>.

WTSPs in the Army Training Network are available at https://atn.army.mil/dsp_template.aspx?dpID=101. Or you can find the WTSPs in the Central Army Registry at <https://atiam.train.army.mil/catalog/#/dashboard> by doing a search.

WTSP questions can be directed to the SSI Collective Training Branch by emailing usarmy.jackson.93-sig-bde.list.jackson-ssi-fm-hr-collec@mail.mil or calling (803) 751-8727.



Anthony Perry, a postal and official mail management analyst with the Services and Support Division of the Army Reserve Command, reviews mail-handling procedures with Pfc. Jamaal Monroe, a mail specialist with the 14th Human Resources Sustainment Center, on Sept. 21, 2016. (Photo by Timothy L. Hale)

Sgt. 1st Class Alejandro Bustamante is a senior FM training developer in the SSI Collective Training Branch at Fort Jackson, South Carolina. He holds a bachelor's degree in psychology and is a certified defense financial manager.



Master Sgt. Steven Lotz, geospatial analyst for the 416th Theater Engineer Command, navigates digitally through a map of a local area in Darien, Illinois, on June 30, 2015. The map was created using geographic information system software. (Photo by Master Sgt. Michel Sauret)

Sustainment Leaders Can Benefit From Geospatial Intelligence

Geospatial intelligence can help sustainment leaders at all levels plan reception staging, onward movement, and integration operations.

■ By Maj. Michael S. Harrell

Maintaining awareness of emergent technologies can often result in information overload and lead to frustration. This recurring pattern may encourage leaders to apply standard methods that have worked in the past. Such familiar choices often provide comfort and efficiency.

However, some tools and pro-

cesses are so powerful that the benefits are worth taking the time to learn. Their comprehensive capabilities can maximize operational effectiveness.

For example, geospatial intelligence (GEOINT) assets that are provided and funded throughout the joint, interorganizational, and multinational domain can be re-

markably applicable when planning and executing port activities, establishing distribution networks, and initiating reception, staging, onward movement, and integration (RSOI) operations.

What Is GEOINT?

Joint Publication 2-03, Geospatial Intelligence Support in Joint

Operations, defines GEOINT as “the exploitation and analysis of imagery and geospatial information to describe, assess, and visually depict physical features and geographically referenced activities on the earth.” The National Geospatial-Intelligence Agency (NGA) provides GEOINT analysis, products, data, and services at the national level.

A discipline of academic study known as geographic information systems (GIS) is evolving from GEOINT and the collection of other data (such as census, historical, meteorological, and geological information) and is shaping many commercial enterprises. The Defense Logistics Agency is the supply chain manager that provides the Department of Defense with GIS-related products.

GIS Products

There are numerous commercial off-the-shelf, web-based GIS products available to conduct basic topographic reconnaissance with some level of clarity. The long accepted industry standard software suite for GIS applications is ArcGIS. Similar enhanced applications are available through the secret internet protocol router network (SIPRNET) and the Joint Worldwide Communications System.

Most smartphone and computer users are familiar with Google Earth. Map of the World, which is available on the nonsecure internet protocol router network, the SIPRNET, and the Joint Worldwide Communications System, is a web-based NGA product that seems similar to Google Earth. This capability provides an excellent overarching planning resource for logisticians.

Multiple map layers can be turned on and off to create planning and execution products tailored to the task at hand. Combined with the analysis available on the Military Surface Deployment and Distribution Command's Transportation

Engineering Agency website, Map of the World can revolutionize port operations planning within organizations that are currently using potentially outdated methods.

Initial distribution network design within theater opening is a critical planning feature that affects future logistics efficiency. NGA provides a plethora of SIPRNET-based products that will assist in

Onward movement and integration can also be effectively planned using mobility assessment tools found in many joint, interorganizational, and multinational systems that pull GIS data. These tools are very similar to distribution network planning tools.

GEOINT is extremely useful for sustainment leaders at all levels.

Geospatial intelligence is extremely useful for sustainment leaders at all levels. Implementing GEOINT education and awareness improves logistics and is also an extremely effective leader development opportunity.

establishing an optimal network, analyzing threats, and assessing infrastructure.

Furthermore, the Military Surface Deployment and Distribution Command has partnered with a contractor to establish the Intelligent Road/Rail Information Server. This GIS database provides weather, railway interchange data, bridge information, and roadway integrity classification. It is available at <http://www.irris.com>.

Using GIS for RSOI

Planning RSOI operations is always complex. At its foundation, RSOI is a spatial problem combined with an extensive series of time phases. GIS analysts or Soldiers can readily resolve spatial challenges using spatial analysis.

Force flow provides a planning parameter that determines necessary operational space at a given time. Real estate allocation requests can be substantiated using a GIS. A staging area can be determined using historical climate data to identify problem areas such as those with patterns of heavy flooding.

Implementing GEOINT education and awareness improves logistics and is also an extremely effective leader development opportunity.

GEOINT and GIS tools should be used by logistics planners at the strategic through tactical levels on a regular basis. Planners should reach out to strategic partners at the NGA, the U.S. Transportation Command, and the Defense Logistics Agency and receive advice from installation-level GEOINT experts.

Maj. Mike Harrell is the division transportation officer for the 2nd Infantry Division at Camp Red Cloud, Korea. He holds a bachelor's degree in history and a master's degree in multidisciplinary studies from North Carolina State University and a GIS graduate certificate from the Center for Earth Observation at North Carolina State University. He also holds a master's degree in humanitarian assistance and disaster relief logistics from the Florida Institute of Technology. He is a graduate of the Theater Logistics Planners Course.

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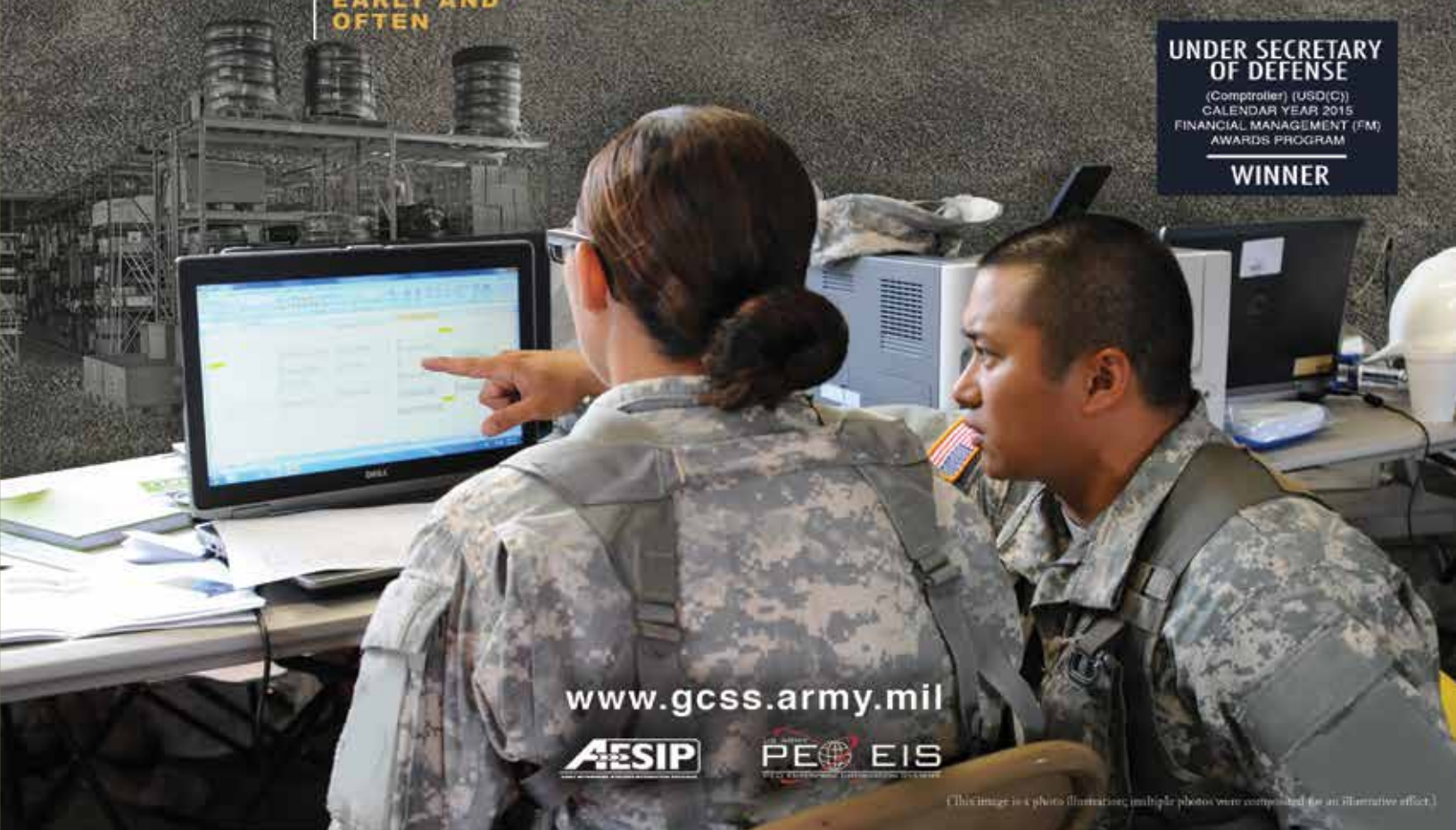
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(This image is a photo illustration; multiple photos were composited for an illustrative effect.)

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Spotlight On



Army Reserve Soldiers from the 3rd Transportation Brigade (Expeditionary) march in the 58th Presidential Inauguration Parade in Washington, D.C., on Jan. 20, 2017. The parade route stretched approximately 1.5 miles along Pennsylvania Avenue from the U.S. Capitol to the White House. (Photo by Master Sgt. Michel Sauret)

Write for *Army Sustainment*

Upcoming Theme

Joint Logistics: July–August 2017

See page 19 for submission requirements.

Deadlines

1 April 2017